

Product Range

Butterfly Valve Type 568



# Table of Contents

## The new Butterfly Valve Type 568

---

### Butterfly Valve Type 568 PVC-U metric

|                                          |    |
|------------------------------------------|----|
| – bare shaft                             | 5  |
| – with hand lever/with reduction gear    | 6  |
| – with hand lever, silicone free version | 8  |
| – with electric actuator type 141        | 9  |
| – with pneumatic actuator type 241       | 13 |

---

### Butterfly Valve Type 568 PVC-C metric

|                                       |    |
|---------------------------------------|----|
| – bare shaft                          | 16 |
| – with hand lever/with reduction gear | 17 |
| – with electric actuator type 141     | 19 |
| – with pneumatic actuator type 241    | 23 |

---

### Butterfly Valve Type 568 ABS metric

|                                       |    |
|---------------------------------------|----|
| – bare shaft                          | 26 |
| – with hand lever/with reduction gear | 27 |
| – with electric actuator type 141     | 29 |
| – with pneumatic actuator type 241    | 33 |

---

### Butterfly Valve Type 568 PP-H metric

|                                          |    |
|------------------------------------------|----|
| – bare shaft                             | 36 |
| – with hand lever/with reduction gear    | 37 |
| – with hand lever, silicone free version | 39 |
| – with electric actuator type 141        | 40 |
| – with pneumatic actuator type 241       | 44 |

---

### Butterfly Valve Type 568 SYGEF Standard metric

|                                       |    |
|---------------------------------------|----|
| – bare shaft                          | 47 |
| – with hand lever/with reduction gear | 48 |
| – with electric actuator type 141     | 50 |
| – with pneumatic actuator type 241    | 54 |

---

# Table of Contents

## The new Butterfly Valve Type 568

---

### Butterfly Valve Type 568 PVC-U ANSI

|                                          |    |
|------------------------------------------|----|
| – bare shaft                             | 57 |
| – with hand lever/with reduction gear    | 58 |
| – with hand lever, silicone free version | 60 |
| – with electric actuator type 142        | 61 |
| – with pneumatic actuator type 242       | 65 |

---

### Butterfly Valve Type 568 PVC-C ANSI

|                                       |    |
|---------------------------------------|----|
| – bare shaft                          | 68 |
| – with hand lever/with reduction gear | 69 |
| – with electric actuator type 142     | 71 |
| – with pneumatic actuator type 242    | 75 |

---

### Butterfly Valve Type 568 ABS ANSI

|                                       |    |
|---------------------------------------|----|
| – bare shaft                          | 78 |
| – with hand lever/with reduction gear | 79 |
| – with electric actuator type 142     | 81 |
| – with pneumatic actuator type 242    | 85 |

---

### Butterfly Valve Type 568 PP-H ANSI

|                                          |    |
|------------------------------------------|----|
| – bare shaft                             | 88 |
| – with hand lever/with reduction gear    | 89 |
| – with hand lever, silicone free version | 91 |
| – with electric actuator type 142        | 92 |
| – with pneumatic actuator type 242       | 96 |

---

### Butterfly Valve Type 568 SYGEF Standard ANSI

|                                       |     |
|---------------------------------------|-----|
| – bare shaft                          | 99  |
| – with hand lever/with reduction gear | 100 |
| – with electric actuator type 142     | 102 |
| – with pneumatic actuator type 242    | 106 |

---

|                |     |
|----------------|-----|
| Assembly parts | 109 |
|----------------|-----|

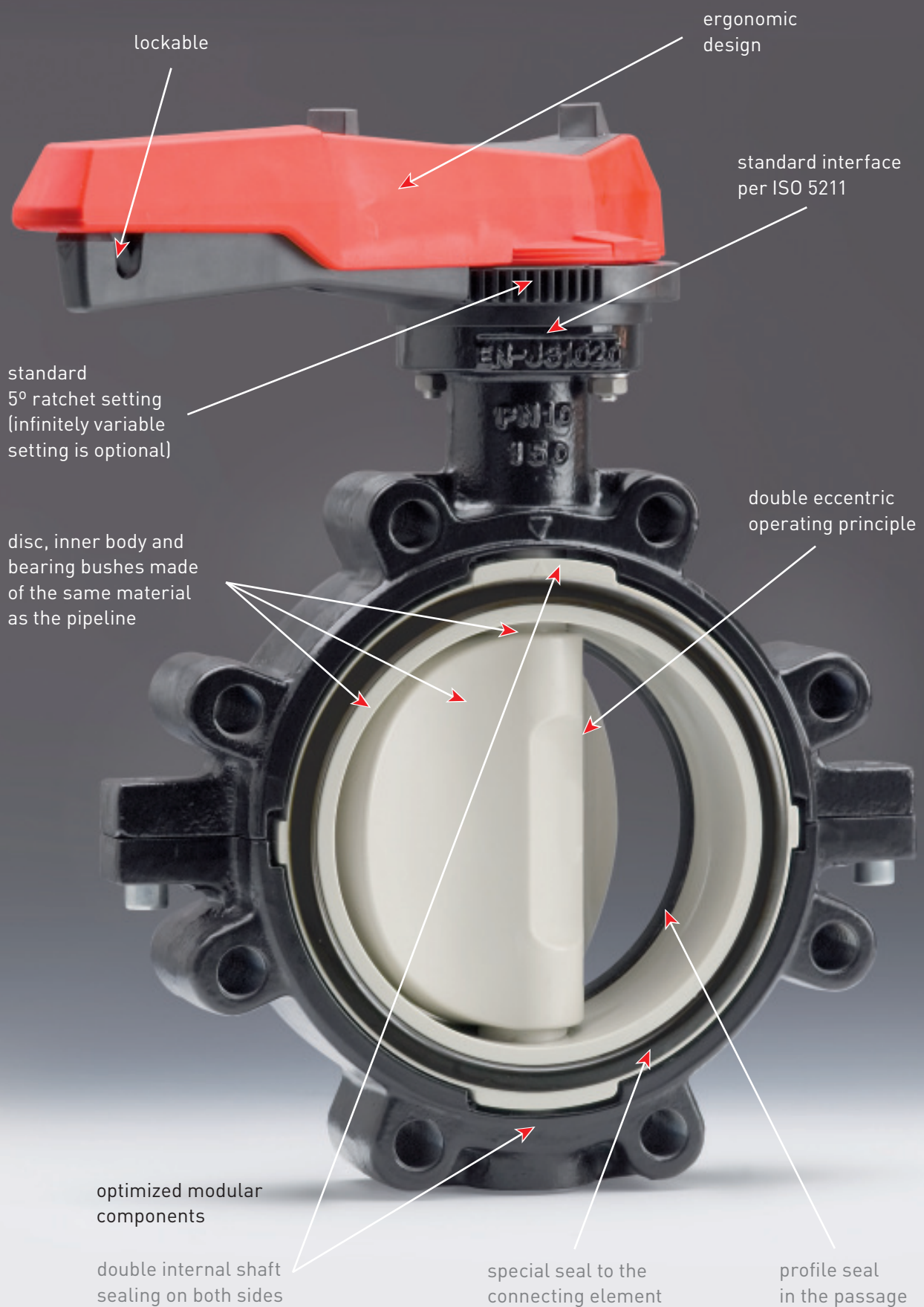
---

|             |     |
|-------------|-----|
| Spare Parts | 121 |
|-------------|-----|

---



## ➤ A winner in every detail



# The system overview

GF Piping Systems presents the butterfly valve 568 type series for a multitude of interesting combination possibilities.

The product range includes manual valves with hand lever or reduction gear as well as pneumatically or electrically actuated valves from DN50 to DN200.

The system follows a modular design principle, enabling you to exchange individual system components quickly, easily and effortlessly. You also have a choice of materials: PVC-U, PVC-C, ABS or  $\beta$ -PP-H and PVDF.

The standard sealing materials are EPDM and FPM, but other materials are also available on request.

All the customary installation pipe standards are supplied:

- metric: DIN, EN, ISO
- inch: ASTM

With this wide range of products to choose from, you can always rely on having the best possible solution for your application. The butterfly valve type 568 from GF Piping Systems conforms to the following international standards:

## EN ISO 16136

Industrial valves – thermoplastic butterfly valves

## ISO 9393

Thermoplastic valves –

pressure test methods and requirements

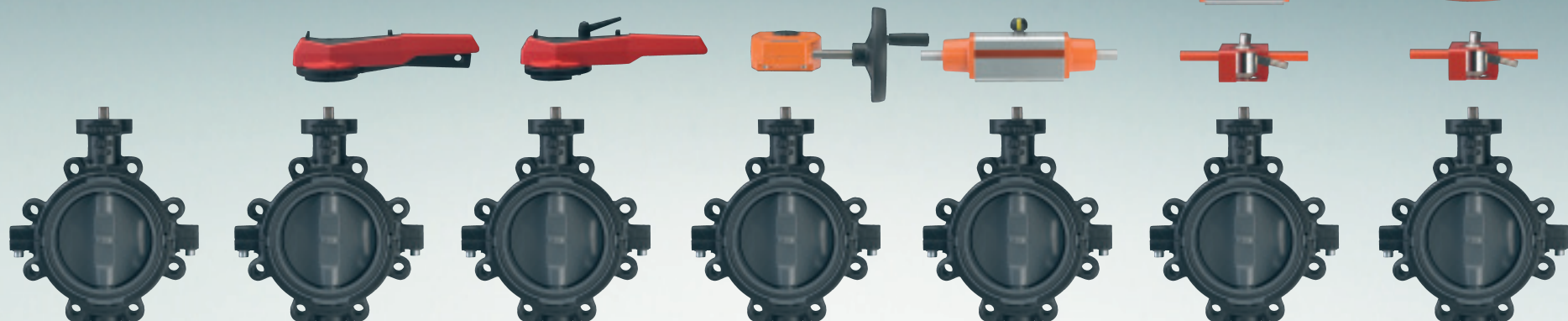
Face-to-face length according to **ISO 5752 (average)**

## Approvals:

GL, LR, BV, RINA, ABS, DNV, CCS, RMRS

## Approvals pending:

DIBt, NSF61



Standard  
lug-type butterfly valve/  
end installation  
Type 568

Standard  
Wafer-type  
butterfly valve  
Type 567

Butterfly valve  
with fine adjustment

Butterfly valve  
with reduction gear

Butterfly valve  
with pneumatic actuator  
– single acting

Butterfly valve  
with pneumatic actuator  
– double acting;  
optional manual override

Butterfly valve with  
electric actuator:  
optional manual  
override

# List of Abbreviations

|       |                                            |
|-------|--------------------------------------------|
| ANSI  | American National Standard Institute       |
| ASTM  | American Society for Testing and Materials |
| BS    | British Standard                           |
| DIN   | Deutsche Industrie-Normen                  |
| ISO   | International Standardization Organization |
| ABS   | Acrylnitrile-Butadiene-Styrene             |
| PVC-U | Polyvinyl chloride, unplasticized          |
| PVC-C | Polyvinyl chloride, post-chlorinated       |
| PP-H  | Polypropylene, Homopolymeride              |
| PE    | Polyethylene                               |
| PVDF  | Polyvinylidene fluoride                    |
| EPDM  | Ethylene-Propylene-Rubber                  |
| FPM   | Fluororubber, e.g. Viton®                  |
| PTFE  | Polytetrafluoroethylene, e.g. Teflon®      |
| d     | Pipe outer diameter                        |
| DN    | Nominal diameter                           |
| PN    | Nominal pressure at 20 °C, water           |
| kg    | Weight in kilograms                        |
| ®     | Registered trademark                       |

The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Our General Conditions of Sale apply.

## Dimensions

All dimensions are given in mm.



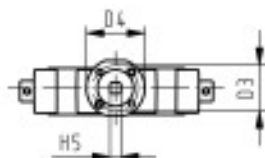
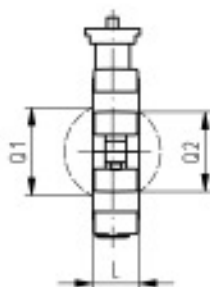
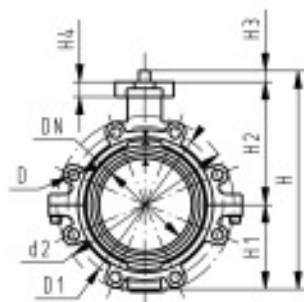
# Butterfly valves PVC-U metric

## Lugstyle butterfly valve type 568 PVC-U Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>161 568 802</b> | <b>161 568 822</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>161 568 803</b> | <b>161 568 823</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>161 568 804</b> | <b>161 568 824</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>161 568 805</b> | <b>161 568 825</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>161 568 806</b> | <b>161 568 826</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>161 568 807</b> | <b>161 568 827</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>161 568 808</b> | <b>161 568 828</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| 63        | 150        | M16 | 125        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |  |
| 75        | 170        | M16 | 145        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |  |

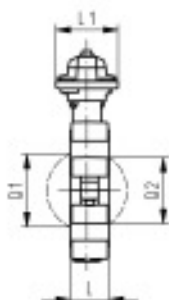
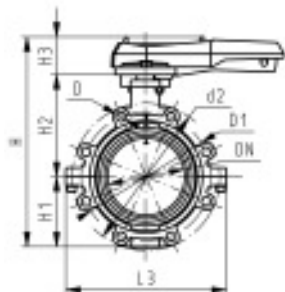


## Lugstyle butterfly valve type 568 PVC-U Hand lever with ratchet settings



### Model:

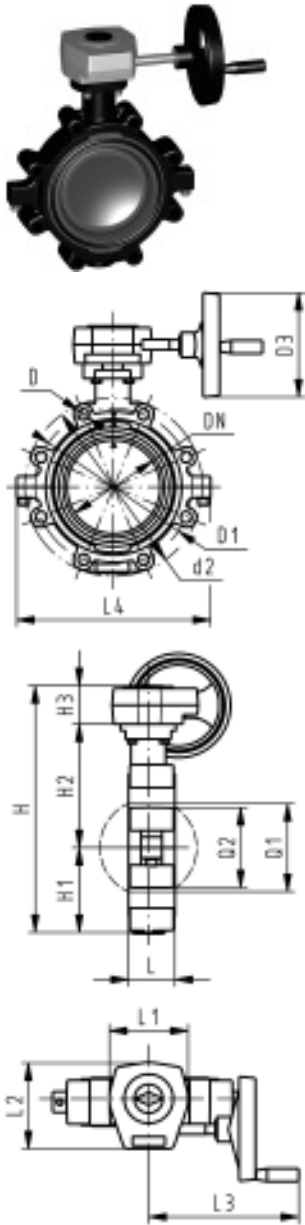
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>161 568 002</b> | <b>161 568 022</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>161 568 003</b> | <b>161 568 023</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>161 568 004</b> | <b>161 568 024</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>161 568 005</b> | <b>161 568 025</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>161 568 006</b> | <b>161 568 026</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>161 568 007</b> | <b>161 568 027</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>161 568 008</b> | <b>161 568 028</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 63        | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 75        | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |





## Lugstyle butterfly valve type 568 PVC-U Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

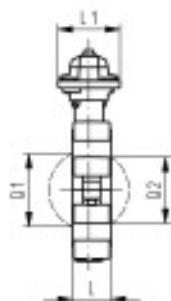
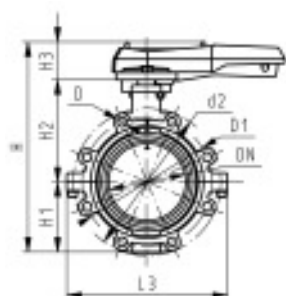
| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|--|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>161 568 042</b> | <b>161 568 062</b> |  |  |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>161 568 043</b> | <b>161 568 063</b> |  |  |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>161 568 044</b> | <b>161 568 064</b> |  |  |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>161 568 045</b> | <b>161 568 065</b> |  |  |  |  |  |  |  |  |  |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>161 568 046</b> | <b>161 568 066</b> |  |  |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>161 568 047</b> | <b>161 568 067</b> |  |  |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>161 568 048</b> | <b>161 568 068</b> |  |  |  |  |  |  |  |  |  |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|
| 63        | 150        | M16 | 125        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |            |
| 75        | 170        | M16 | 145        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         | 35         |
| 90        | 184        | M16 | 160        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 205        | 67         | 50         |
| 110       | 216        | M16 | 180        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         | 74         |
| 140       | 246        | M16 | 210        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        | 97         |
| 160       | 273        | M20 | 240        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        | 123        |
| 225       | 334        | M20 | 295        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        | 169        |

# Butterfly valves PVC-U SF metric

## Lugstyle butterfly valve type 568 PVC-U SF Hand lever with ratchet settings



### Model:

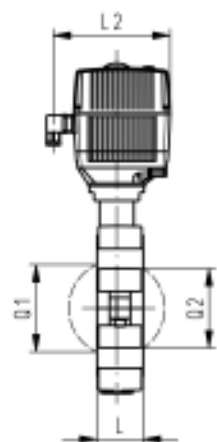
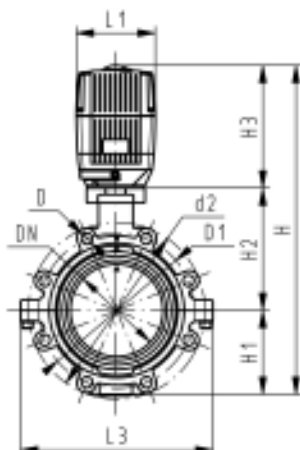
- Silicon-free / paint-compatible
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>161 568 402</b> | <b>161 568 422</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>161 568 403</b> | <b>161 568 423</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>161 568 404</b> | <b>161 568 424</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>161 568 405</b> | <b>161 568 425</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>161 568 406</b> | <b>161 568 426</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>161 568 407</b> | <b>161 568 427</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>161 568 408</b> | <b>161 568 428</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 63        | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 75        | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 57         | 73        | 140        | 408        | 360        | 178        | 169        |  |

# Butterfly valves electric PVC-U metric

## Lugstyle butterfly valve type 141 PVC-U 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|-----------------------------------|--------------|-------------|--|--|--|--|--|--|--|--|
| 63        | 50         | 2    | 10 | 1470                              | 199 141 042  | 199 141 062 |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                              | 199 141 043  | 199 141 063 |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                              | 199 141 044  | 199 141 064 |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                              | 199 141 045  | 199 141 065 |  |  |  |  |  |  |  |  |
| 140       | 125        | 5    | 10 | 11500                             | 199 141 046  | 199 141 066 |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                             | 199 141 047  | 199 141 067 |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                             | 199 141 048  | 199 141 068 |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |            |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         | 35         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         | 50         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         | 74         |
| 140       | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        | 97         |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        | 123        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        | 169        |



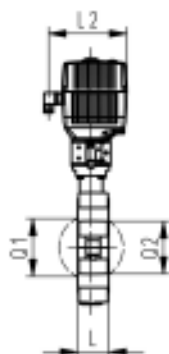
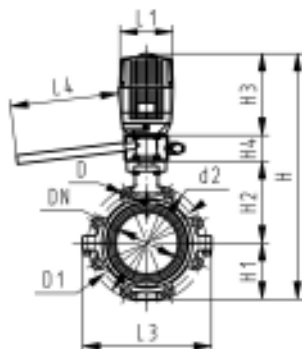


## Lugstyle butterfly valve type 141 PVC-U 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| d<br>[mm] | DN<br>[mm] | Inch  | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|-----------|------------|-------|----|--------------------------------------------|--------------|-------------|--|
| 63        | 50         | 2     | 10 | 1470                                       | 199 141 002  | 199 141 022 |  |
| 75        | 65         | 2 1/2 | 10 | 2200                                       | 199 141 003  | 199 141 023 |  |
| 90        | 80         | 3     | 10 | 3000                                       | 199 141 004  | 199 141 024 |  |
| 110       | 100        | 4     | 10 | 6500                                       | 199 141 005  | 199 141 025 |  |
| 140       | 125        | 5     | 10 | 11500                                      | 199 141 006  | 199 141 026 |  |
| 160       | 150        | 6     | 10 | 16600                                      | 199 141 007  | 199 141 027 |  |
| 225       | 200        | 8     | 10 | 39600                                      | 199 141 008  | 199 141 028 |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        | 200        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        | 200        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        | 200        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        | 250        |
| 140       | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        | 250        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        | 250        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        | 250        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |

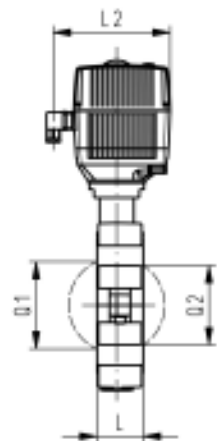
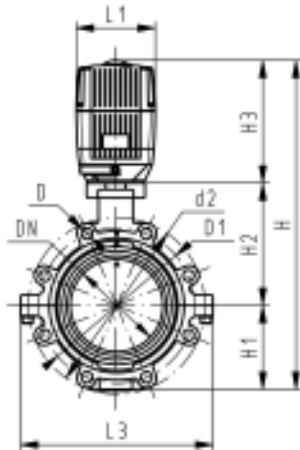


## Lugstyle butterfly valve type 141 PVC-U 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|-----------|------------|------|----|--------------------------------------------|--------------|-------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | 199 141 122  | 199 141 142 |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | 199 141 123  | 199 141 143 |  |
| 90        | 80         | 3    | 10 | 3000                                       | 199 141 124  | 199 141 144 |  |
| 110       | 100        | 4    | 10 | 6500                                       | 199 141 125  | 199 141 145 |  |
| 140       | 125        | 5    | 10 | 11500                                      | 199 141 126  | 199 141 146 |  |
| 160       | 150        | 6    | 10 | 16600                                      | 199 141 127  | 199 141 147 |  |
| 225       | 200        | 8    | 10 | 39600                                      | 199 141 128  | 199 141 148 |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |            |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         | 35         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         | 50         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         | 74         |
| 140       | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        | 97         |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        | 123        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        | 169        |

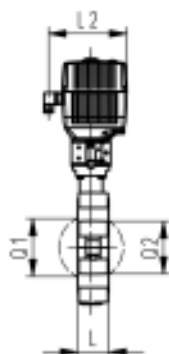
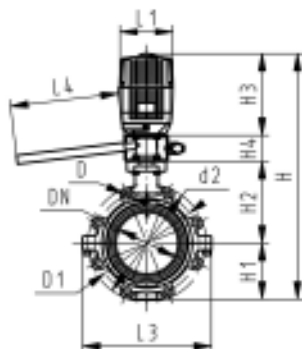


## Lugstyle butterfly valve type 141 PVC-U 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



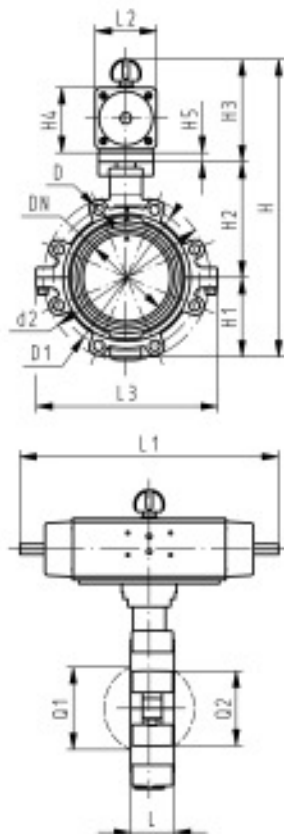
| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 141 082</b> | <b>199 141 102</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 083</b> | <b>199 141 103</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 084</b> | <b>199 141 104</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 085</b> | <b>199 141 105</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 141 086</b> | <b>199 141 106</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 087</b> | <b>199 141 107</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 088</b> | <b>199 141 108</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        | 200        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        | 200        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        | 200        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        | 250        |
| 140       | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        | 250        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        | 250        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        | 250        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |

# Butterfly valves pneumatic PVC-U metric

## Lugstyle butterfly valve type 241 PVC-U FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|-----------|------------|------|----|-----------------------------------|--------------|-------------|--|
| 63        | 50         | 2    | 10 | 1470                              | 199 241 002  | 199 241 022 |  |
| 75        | 65         | 2 ½  | 10 | 2200                              | 199 241 003  | 199 241 023 |  |
| 90        | 80         | 3    | 10 | 3000                              | 199 241 004  | 199 241 024 |  |
| 110       | 100        | 4    | 10 | 6500                              | 199 241 005  | 199 241 025 |  |
| 140       | 125        | 5    | 10 | 11500                             | 199 241 006  | 199 241 026 |  |
| 160       | 150        | 6    | 10 | 16600                             | 199 241 007  | 199 241 027 |  |
| 225       | 200        | 8    | 10 | 39600                             | 199 241 008  | 199 241 028 |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-30 FC              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         | 150        |
| 75        | PA-30 FC              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         | 160        |
| 90        | PA-35 FC              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         | 205        |
| 110       | PA-40 FC              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         | 244        |
| 140       | PA-45 FC              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         | 272        |
| 160       | PA-50 FC              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        | 297        |
| 225       | PA-55 FC              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |



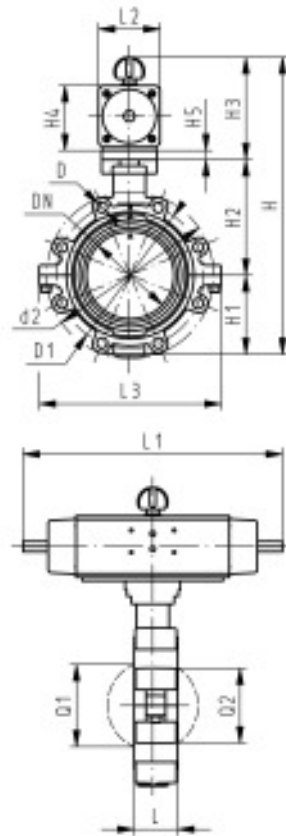


## Lugstyle butterfly valve type 241 PVC-U FO (Fail safe to open) Without manual override



### Model:

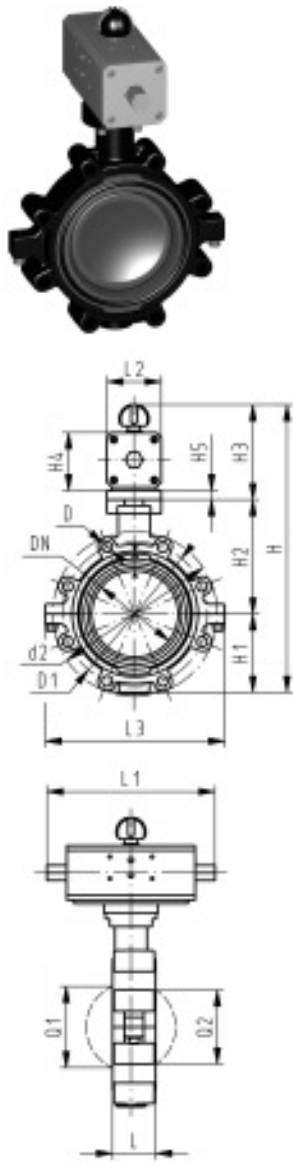
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 241 042</b> | <b>199 241 062</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 043</b> | <b>199 241 063</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 044</b> | <b>199 241 064</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 045</b> | <b>199 241 065</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 241 046</b> | <b>199 241 066</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 047</b> | <b>199 241 067</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 048</b> | <b>199 241 068</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-30 FO              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         | 150        |
| 75        | PA-30 FO              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         | 160        |
| 90        | PA-35 FO              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         | 205        |
| 110       | PA-40 FO              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         | 244        |
| 140       | PA-45 FO              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         | 272        |
| 160       | PA-50 FO              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        | 297        |
| 225       | PA-55 FO              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |



## Lugstyle butterfly valve type 241 PVC-U DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

| d<br>[mm] | DN<br>[mm]            | Inch       | PN  | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |            |            |            |            |            |           |            |            |            |
|-----------|-----------------------|------------|-----|-----------------------------------|--------------|-------------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | 50                    | 2          | 10  | 1470                              | 199 241 082  | 199 241 102 |            |            |            |            |            |           |            |            |            |
| 75        | 65                    | 2 ½        | 10  | 2200                              | 199 241 083  | 199 241 103 |            |            |            |            |            |           |            |            |            |
| 90        | 80                    | 3          | 10  | 3000                              | 199 241 084  | 199 241 104 |            |            |            |            |            |           |            |            |            |
| 110       | 100                   | 4          | 10  | 6500                              | 199 241 085  | 199 241 105 |            |            |            |            |            |           |            |            |            |
| 140       | 125                   | 5          | 10  | 11500                             | 199 241 086  | 199 241 106 |            |            |            |            |            |           |            |            |            |
| 160       | 150                   | 6          | 10  | 16600                             | 199 241 087  | 199 241 107 |            |            |            |            |            |           |            |            |            |
| 225       | 200                   | 8          | 10  | 39600                             | 199 241 088  | 199 241 108 |            |            |            |            |            |           |            |            |            |
| d<br>[mm] | Actuator<br>unit type |            | D   | D1<br>[mm]                        | d2<br>[mm]   | H<br>[mm]   | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
| 63        | PA-35 DA              |            | M16 | 125                               | 150          | 318         | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         | 150        |
| 75        | PA-35 DA              |            | M16 | 145                               | 170          | 330         | 83         | 140        | 107        | 60         |            | 46        | 177        | 55         | 160        |
| 90        | PA-40 DA              |            | M16 | 160                               | 184          | 348         | 89         | 146        | 113        | 66         |            | 49        | 190        | 60         | 205        |
| 110       | PA-45 DA              |            | M16 | 180                               | 216          | 373         | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         | 244        |
| 140       | PA-45 DA              |            | M16 | 210                               | 246          | 409         | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         | 272        |
| 160       | PA-55 DA              |            | M20 | 240                               | 273          | 448         | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         | 297        |
| 225       | PA-55 DA              |            | M20 | 295                               | 334          | 507         | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         | 360        |
| d<br>[mm] | Q1<br>[mm]            | Q2<br>[mm] |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 63        | 40                    |            |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 75        | 54                    | 35         |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 90        | 67                    | 50         |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 110       | 88                    | 74         |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 140       | 113                   | 97         |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 160       | 139                   | 123        |     |                                   |              |             |            |            |            |            |            |           |            |            |            |
| 225       | 178                   | 169        |     |                                   |              |             |            |            |            |            |            |           |            |            |            |

# Butterfly valves PVC-C metric

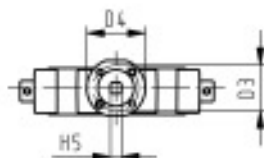
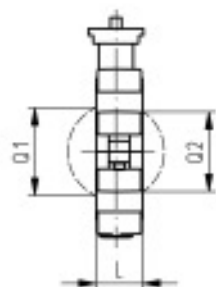
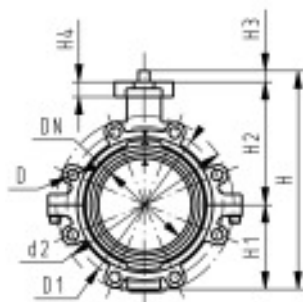
## Lugstyle butterfly valve type 568 PVC-C Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch  | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |  |  |  |  |  |  |  |
|-----------|------------|-------|----|--------------------------------------------|--------------|-------------|--|--|--|--|--|--|--|--|
| *63       | 50         | 2     | 10 | 1470                                       | 163 568 802  | 163 568 822 |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 1/2 | 10 | 2200                                       | 163 568 803  | 163 568 823 |  |  |  |  |  |  |  |  |
| 90        | 80         | 3     | 10 | 3000                                       | 163 568 804  | 163 568 824 |  |  |  |  |  |  |  |  |
| 110       | 100        | 4     | 10 | 6500                                       | 163 568 805  | 163 568 825 |  |  |  |  |  |  |  |  |
| *140      | 125        | 5     | 10 | 11500                                      | 163 568 806  | 163 568 826 |  |  |  |  |  |  |  |  |
| 160       | 150        | 6     | 10 | 16600                                      | 163 568 807  | 163 568 827 |  |  |  |  |  |  |  |  |
| 225       | 200        | 8     | 10 | 39600                                      | 163 568 808  | 163 568 828 |  |  |  |  |  |  |  |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| *63       | 150        | M16 | 125        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |  |
| 75        | 170        | M16 | 145        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |  |
| *140      | 246        | M16 | 210        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |  |



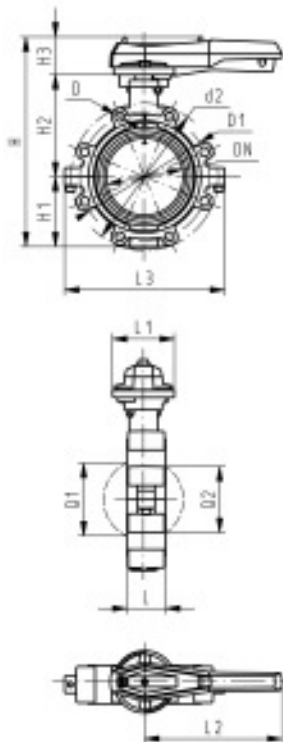
## Lugstyle butterfly valve type 568 PVC-C Hand lever with ratchet settings



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>163 568 002</b> | <b>163 568 022</b> |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>163 568 003</b> | <b>163 568 023</b> |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>163 568 004</b> | <b>163 568 024</b> |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>163 568 005</b> | <b>163 568 025</b> |  |  |  |  |  |  |  |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>163 568 006</b> | <b>163 568 026</b> |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>163 568 007</b> | <b>163 568 027</b> |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>163 568 008</b> | <b>163 568 028</b> |  |  |  |  |  |  |  |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| *63       | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 75        | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| *140      | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |



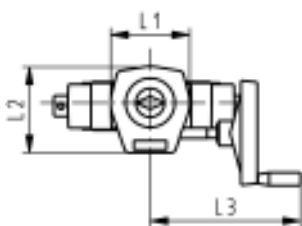
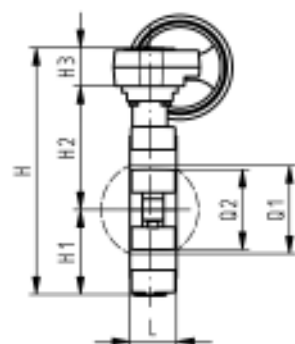
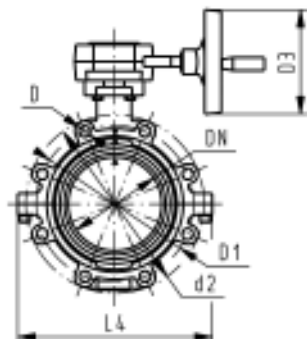
## Lugstyle butterfly valve type 568 PVC-C Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>163 568 042</b> | <b>163 568 062</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>163 568 043</b> | <b>163 568 063</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>163 568 044</b> | <b>163 568 064</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>163 568 045</b> | <b>163 568 065</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>163 568 046</b> | <b>163 568 066</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>163 568 047</b> | <b>163 568 067</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>163 568 048</b> | <b>163 568 068</b> |  |

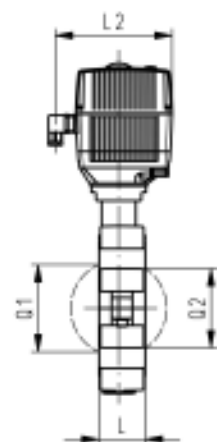
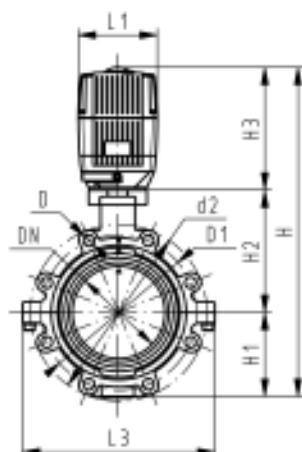
| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] |  |
|-----------|------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| *63       | 150        | M16 | 125        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |  |
| 75        | 170        | M16 | 145        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         |  |
| 90        | 184        | M16 | 160        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 205        | 67         |  |
| 110       | 216        | M16 | 180        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         |  |
| *140      | 246        | M16 | 210        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        |  |
| 160       | 273        | M20 | 240        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        |  |
| 225       | 334        | M20 | 295        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        |  |

| d<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|--|
| *63       |            |  |
| 75        | 35         |  |
| 90        | 50         |  |
| 110       | 74         |  |
| *140      | 97         |  |
| 160       | 123        |  |
| 225       | 169        |  |



# Butterfly valves electric PVC-C metric

## Lugstyle butterfly valve type 141 PVC-C 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 202</b> | <b>199 141 222</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 203</b> | <b>199 141 223</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 204</b> | <b>199 141 224</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 205</b> | <b>199 141 225</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 206</b> | <b>199 141 226</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 207</b> | <b>199 141 227</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 208</b> | <b>199 141 228</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| *140      | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| d<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|--|
| *63       |            |  |
| 75        | 35         |  |
| 90        | 50         |  |
| 110       | 74         |  |
| *140      | 97         |  |
| 160       | 123        |  |
| 225       | 169        |  |



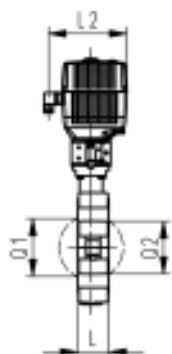
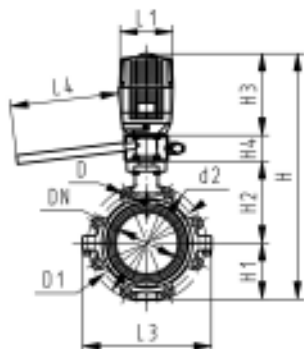
## Lugstyle butterfly valve type 141 PVC-C 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 162</b> | <b>199 141 182</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 163</b> | <b>199 141 183</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 164</b> | <b>199 141 184</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 165</b> | <b>199 141 185</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 166</b> | <b>199 141 186</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 167</b> | <b>199 141 187</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 168</b> | <b>199 141 188</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| *140      | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| d<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|------------|--|
| *63       | 200        | 40         |            |  |
| 75        | 200        | 54         | 35         |  |
| 90        | 200        | 67         | 50         |  |
| 110       | 250        | 88         | 74         |  |
| *140      | 250        | 113        | 97         |  |
| 160       | 250        | 139        | 123        |  |
| 225       | 250        | 178        | 169        |  |



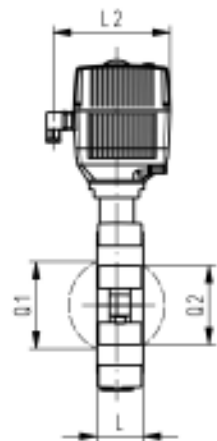
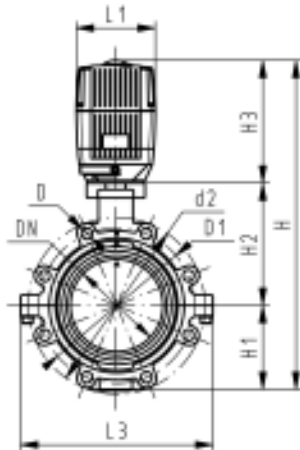
## Lugstyle butterfly valve type 141 PVC-C 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 282</b> | <b>199 141 302</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 283</b> | <b>199 141 303</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 284</b> | <b>199 141 304</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 285</b> | <b>199 141 305</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 286</b> | <b>199 141 306</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 287</b> | <b>199 141 307</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 288</b> | <b>199 141 308</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| *140      | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| d<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|--|
| *63       |            |  |
| 75        | 35         |  |
| 90        | 50         |  |
| 110       | 74         |  |
| *140      | 97         |  |
| 160       | 123        |  |
| 225       | 169        |  |



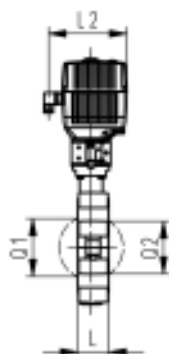
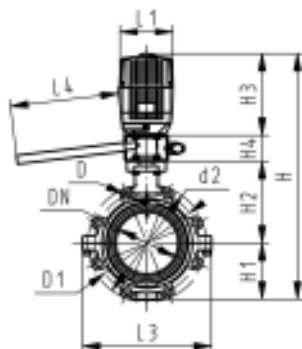
## Lugstyle butterfly valve type 141 PVC-C 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 242</b> | <b>199 141 262</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 243</b> | <b>199 141 263</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 244</b> | <b>199 141 264</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 245</b> | <b>199 141 265</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 246</b> | <b>199 141 266</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 247</b> | <b>199 141 267</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 248</b> | <b>199 141 268</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| *140      | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| d<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|------------|--|
| *63       | 200        | 40         |            |  |
| 75        | 200        | 54         | 35         |  |
| 90        | 200        | 67         | 50         |  |
| 110       | 250        | 88         | 74         |  |
| *140      | 250        | 113        | 97         |  |
| 160       | 250        | 139        | 123        |  |
| 225       | 250        | 178        | 169        |  |

# Butterfly valves pneumatic PVC-C metric

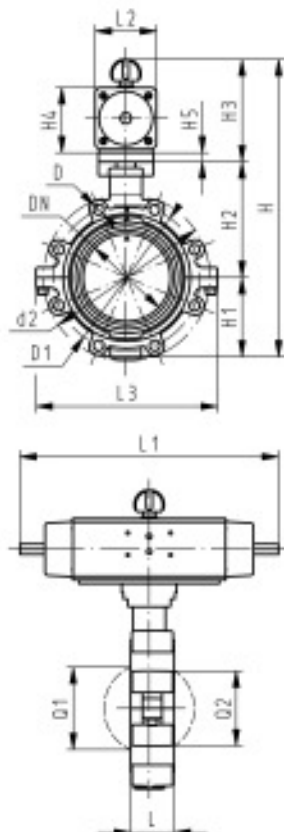
## Lugstyle butterfly valve type 241 PVC-C FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch  | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|-----------|------------|-------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| *63       | 50         | 2     | 10 | 1470                                       | <b>199 241 162</b> | <b>199 241 182</b> |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 1/2 | 10 | 2200                                       | <b>199 241 163</b> | <b>199 241 183</b> |  |  |  |  |  |  |  |  |
| 90        | 80         | 3     | 10 | 3000                                       | <b>199 241 164</b> | <b>199 241 184</b> |  |  |  |  |  |  |  |  |
| 110       | 100        | 4     | 10 | 6500                                       | <b>199 241 165</b> | <b>199 241 185</b> |  |  |  |  |  |  |  |  |
| *140      | 125        | 5     | 10 | 11500                                      | <b>199 241 166</b> | <b>199 241 186</b> |  |  |  |  |  |  |  |  |
| 160       | 150        | 6     | 10 | 16600                                      | <b>199 241 167</b> | <b>199 241 187</b> |  |  |  |  |  |  |  |  |
| 225       | 200        | 8     | 10 | 39600                                      | <b>199 241 168</b> | <b>199 241 188</b> |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | PA-30 FC              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 75        | PA-30 FC              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 90        | PA-35 FC              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 110       | PA-40 FC              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| *140      | PA-45 FC              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 160       | PA-50 FC              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 225       | PA-55 FC              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| d<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|------------|
| *63       | 150        | 40         |            |
| 75        | 160        | 54         | 35         |
| 90        | 205        | 67         | 50         |
| 110       | 244        | 88         | 74         |
| *140      | 272        | 113        | 97         |
| 160       | 297        | 139        | 123        |
| 225       | 360        | 178        | 169        |





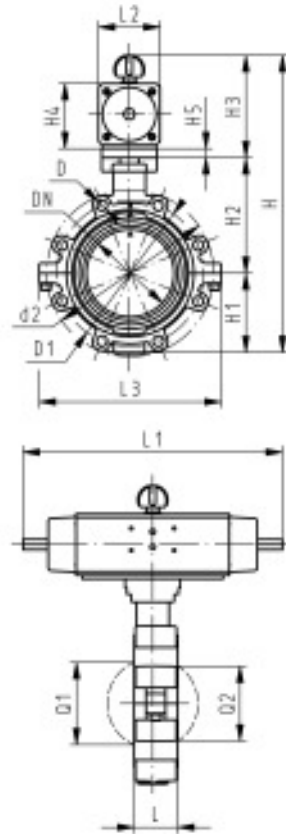
## Lugstyle butterfly valve type 241 PVC-C FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch  | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|-------|----|--------------------------------------------|--------------------|--------------------|--|
| *63       | 50         | 2     | 10 | 1470                                       | <b>199 241 202</b> | <b>199 241 222</b> |  |
| 75        | 65         | 2 1/2 | 10 | 2200                                       | <b>199 241 203</b> | <b>199 241 223</b> |  |
| 90        | 80         | 3     | 10 | 3000                                       | <b>199 241 204</b> | <b>199 241 224</b> |  |
| 110       | 100        | 4     | 10 | 6500                                       | <b>199 241 205</b> | <b>199 241 225</b> |  |
| *140      | 125        | 5     | 10 | 11500                                      | <b>199 241 206</b> | <b>199 241 226</b> |  |
| 160       | 150        | 6     | 10 | 16600                                      | <b>199 241 207</b> | <b>199 241 227</b> |  |
| 225       | 200        | 8     | 10 | 39600                                      | <b>199 241 208</b> | <b>199 241 228</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | PA-30 FO              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 75        | PA-30 FO              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 90        | PA-35 FO              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 110       | PA-40 FO              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| *140      | PA-45 FO              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 160       | PA-50 FO              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 225       | PA-55 FO              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| d<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|------------|--|
| *63       | 150        | 40         |            |  |
| 75        | 160        | 54         | 35         |  |
| 90        | 205        | 67         | 50         |  |
| 110       | 244        | 88         | 74         |  |
| *140      | 272        | 113        | 97         |  |
| 160       | 297        | 139        | 123        |  |
| 225       | 360        | 178        | 169        |  |



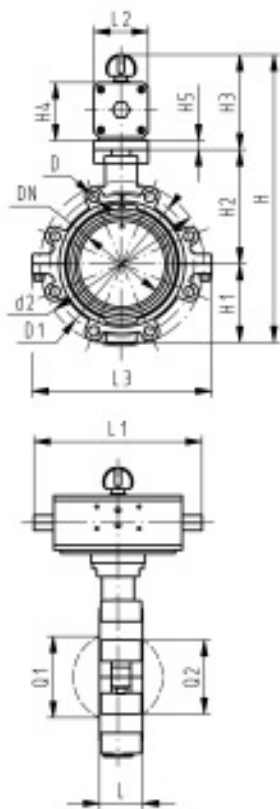
## Lugstyle butterfly valve type 241 PVC-C DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 241 242</b> | <b>199 241 262</b> |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 243</b> | <b>199 241 263</b> |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 244</b> | <b>199 241 264</b> |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 245</b> | <b>199 241 265</b> |  |  |  |  |  |  |  |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 241 246</b> | <b>199 241 266</b> |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 247</b> | <b>199 241 267</b> |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 248</b> | <b>199 241 268</b> |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | PA-35 DA              | M16 | 125        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         |
| 75        | PA-35 DA              | M16 | 145        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        | 55         |
| 90        | PA-40 DA              | M16 | 160        | 184        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        | 60         |
| 110       | PA-45 DA              | M16 | 180        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         |
| *140      | PA-45 DA              | M16 | 210        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         |
| 160       | PA-55 DA              | M20 | 240        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         |
| 225       | PA-55 DA              | M20 | 295        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         |

| d<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|------------|
| *63       | 150        | 40         |            |
| 75        | 160        | 54         | 35         |
| 90        | 205        | 67         | 50         |
| 110       | 244        | 88         | 74         |
| *140      | 272        | 113        | 97         |
| 160       | 297        | 139        | 123        |
| 225       | 360        | 178        | 169        |

# Butterfly valves ABS metric

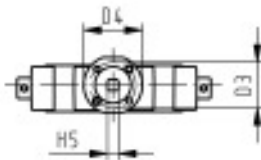
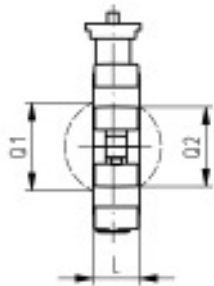
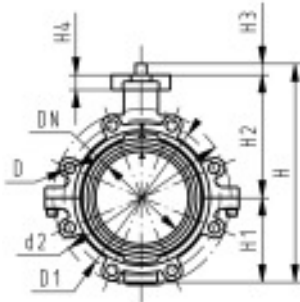
## Lugstyle butterfly valve type 568 ABS Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |
|-----------|------------|------|----|--------------------------------------------|--------------------|
| *63       | 50         | 2    | 10 | 1470                                       | <b>169 568 802</b> |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>169 568 803</b> |
| 90        | 80         | 3    | 10 | 3000                                       | <b>169 568 804</b> |
| 110       | 100        | 4    | 10 | 6500                                       | <b>169 568 805</b> |
| *140      | 125        | 5    | 10 | 11500                                      | <b>169 568 806</b> |
| 160       | 150        | 6    | 10 | 16600                                      | <b>169 568 807</b> |
| 225       | 200        | 8    | 10 | 39600                                      | <b>169 568 808</b> |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|-----|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | 150        | M16 | 125        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |
| *75       | 170        | M16 | 145        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |
| 90        | 184        | M16 | 160        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |
| 110       | 216        | M16 | 180        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |
| *140      | 246        | M16 | 210        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |
| 160       | 273        | M20 | 240        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |
| 225       | 334        | M20 | 295        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |



## Lugstyle butterfly valve type 568 ABS

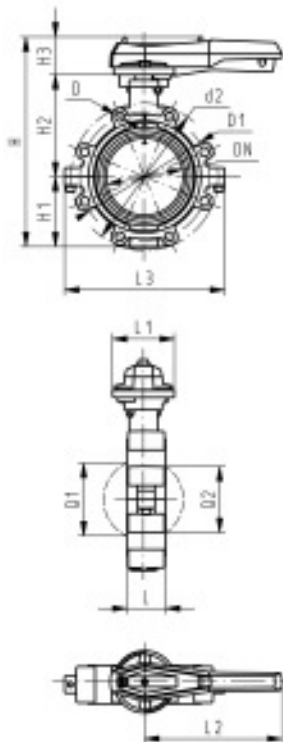
### Hand lever with ratchet settings



#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>169 568 002</b> |  |  |  |  |  |  |  |  |  |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>169 568 003</b> |  |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>169 568 004</b> |  |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>169 568 005</b> |  |  |  |  |  |  |  |  |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>169 568 006</b> |  |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>169 568 007</b> |  |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>169 568 008</b> |  |  |  |  |  |  |  |  |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| *63       | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| *75       | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| *140      | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |



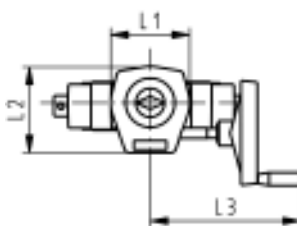
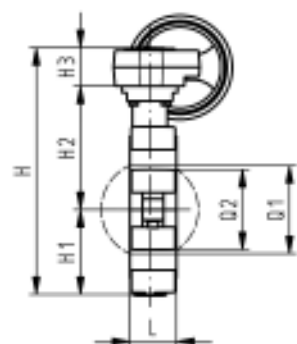
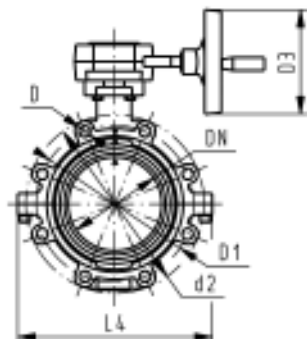
## Lugstyle butterfly valve type 568 ABS Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

\* Available on request



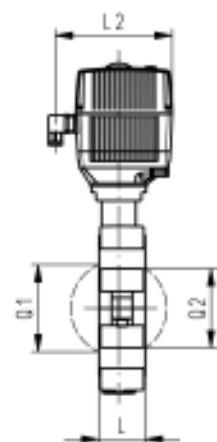
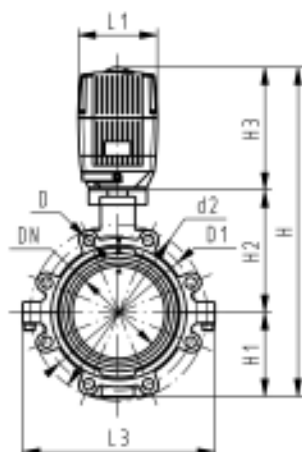
| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>169 568 022</b> |  |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>169 568 023</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>169 568 024</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>169 568 025</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>169 568 026</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>169 568 027</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>169 568 028</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] |  |
|-----------|------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| *63       | 150        | M16 | 125        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |  |
| *75       | 170        | M16 | 145        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         |  |
| 90        | 184        | M16 | 160        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 205        | 67         |  |
| 110       | 216        | M16 | 180        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         |  |
| *140      | 246        | M16 | 210        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        |  |
| 160       | 273        | M20 | 240        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        |  |
| 225       | 334        | M20 | 295        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        |  |

| d<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|--|
| *63       |            |  |
| *75       | 35         |  |
| 90        | 50         |  |
| 110       | 74         |  |
| *140      | 97         |  |
| 160       | 123        |  |
| 225       | 169        |  |

# Butterfly valves electric ABS metric

## Lugstyle butterfly valve type 141 ABS 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 502</b> |  |  |  |  |  |  |  |  |  |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 503</b> |  |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 504</b> |  |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 505</b> |  |  |  |  |  |  |  |  |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 506</b> |  |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 507</b> |  |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 508</b> |  |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| *75       | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| *140      | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| d<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| *63       |            |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *75       | 35         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90        | 50         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110       | 74         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *140      | 97         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160       | 123        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 225       | 169        |  |  |  |  |  |  |  |  |  |  |  |  |  |





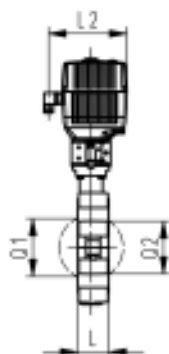
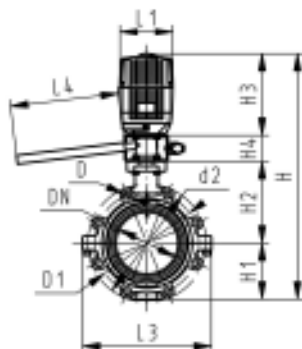
# Lugstyle butterfly valve type 141 ABS 100-230V With manual override



## Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |
|-----------|------------|------|----|--------------------------------------------|--------------------|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 482</b> |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 483</b> |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 484</b> |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 485</b> |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 486</b> |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 487</b> |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 488</b> |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| *75       | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| *140      | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| d<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|------------|
| *63       | 200        | 40         |            |
| *75       | 200        | 54         | 35         |
| 90        | 200        | 67         | 50         |
| 110       | 250        | 88         | 74         |
| *140      | 250        | 113        | 97         |
| 160       | 250        | 139        | 123        |
| 225       | 250        | 178        | 169        |



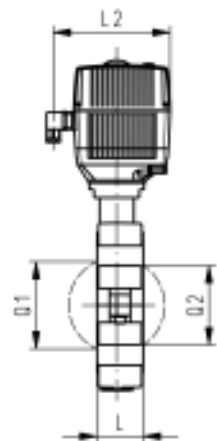
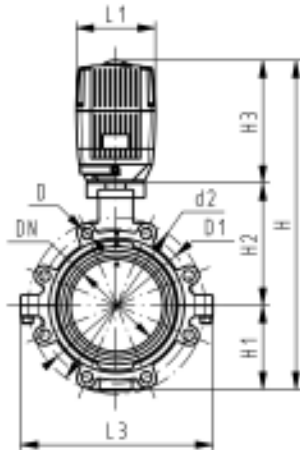
## Lugstyle butterfly valve type 141 ABS 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code       |  |
|-----------|------------|------|----|-----------------------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                              | <b>199 141 542</b> |  |
| *75       | 65         | 2 ½  | 10 | 2200                              | <b>199 141 543</b> |  |
| 90        | 80         | 3    | 10 | 3000                              | <b>199 141 544</b> |  |
| 110       | 100        | 4    | 10 | 6500                              | <b>199 141 545</b> |  |
| *140      | 125        | 5    | 10 | 11500                             | <b>199 141 546</b> |  |
| 160       | 150        | 6    | 10 | 16600                             | <b>199 141 547</b> |  |
| 225       | 200        | 8    | 10 | 39600                             | <b>199 141 548</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| *75       | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| *140      | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| d<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|--|
| *63       |            |  |
| *75       | 35         |  |
| 90        | 50         |  |
| 110       | 74         |  |
| *140      | 97         |  |
| 160       | 123        |  |
| 225       | 169        |  |



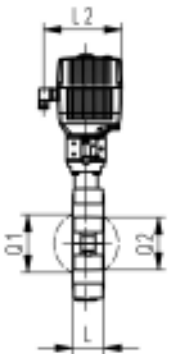
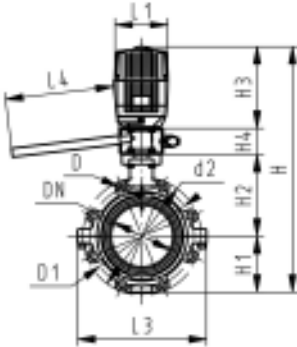
## Lugstyle butterfly valve type 141 ABS 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 141 522</b> |  |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 523</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 524</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 525</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 141 526</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 527</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 528</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| *63       | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| *75       | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| *140      | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| d<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|------------|--|
| *63       | 200        | 40         |            |  |
| *75       | 200        | 54         | 35         |  |
| 90        | 200        | 67         | 50         |  |
| 110       | 250        | 88         | 74         |  |
| *140      | 250        | 113        | 97         |  |
| 160       | 250        | 139        | 123        |  |
| 225       | 250        | 178        | 169        |  |

# Butterfly valves pneumatic ABS metric

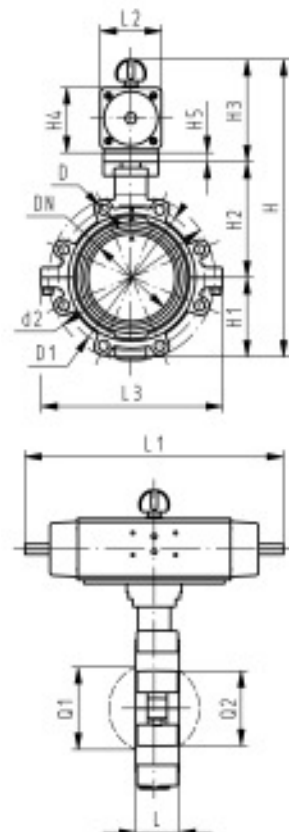
## Lugstyle butterfly valve type 241 ABS FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|-----------------------------------|--------------------|--|--|--|--|--|--|--|--|
| *63       | 50         | 2    | 10 | 1470                              | <b>199 241 402</b> |  |  |  |  |  |  |  |  |
| *75       | 65         | 2 ½  | 10 | 2200                              | <b>199 241 403</b> |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                              | <b>199 241 404</b> |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                              | <b>199 241 405</b> |  |  |  |  |  |  |  |  |
| *140      | 125        | 5    | 10 | 11500                             | <b>199 241 406</b> |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                             | <b>199 241 407</b> |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                             | <b>199 241 408</b> |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | PA-30 FC              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| *75       | PA-30 FC              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 90        | PA-35 FC              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 110       | PA-40 FC              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| *140      | PA-45 FC              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 160       | PA-50 FC              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 225       | PA-55 FC              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| d<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |
|-----------|------------|------------|------------|--|--|--|--|--|--|--|--|--|--|
| *63       | 150        | 40         |            |  |  |  |  |  |  |  |  |  |  |
| *75       | 160        | 54         | 35         |  |  |  |  |  |  |  |  |  |  |
| 90        | 205        | 67         | 50         |  |  |  |  |  |  |  |  |  |  |
| 110       | 244        | 88         | 74         |  |  |  |  |  |  |  |  |  |  |
| *140      | 272        | 113        | 97         |  |  |  |  |  |  |  |  |  |  |
| 160       | 297        | 139        | 123        |  |  |  |  |  |  |  |  |  |  |
| 225       | 360        | 178        | 169        |  |  |  |  |  |  |  |  |  |  |



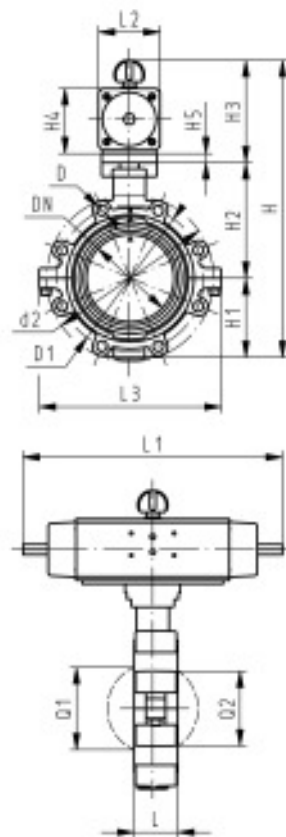
## Lugstyle butterfly valve type 241 ABS FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|
| *63       | 50         | 2    | 10 | 1470                                       | <b>199 241 422</b> |  |
| *75       | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 423</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 424</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 425</b> |  |
| *140      | 125        | 5    | 10 | 11500                                      | <b>199 241 426</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 427</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 428</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | PA-30 FO              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| *75       | PA-30 FO              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 90        | PA-35 FO              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 110       | PA-40 FO              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| *140      | PA-45 FO              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 160       | PA-50 FO              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 225       | PA-55 FO              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| d<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|------------|--|
| *63       | 150        | 40         |            |  |
| *75       | 160        | 54         | 35         |  |
| 90        | 205        | 67         | 50         |  |
| 110       | 244        | 88         | 74         |  |
| *140      | 272        | 113        | 97         |  |
| 160       | 297        | 139        | 123        |  |
| 225       | 360        | 178        | 169        |  |



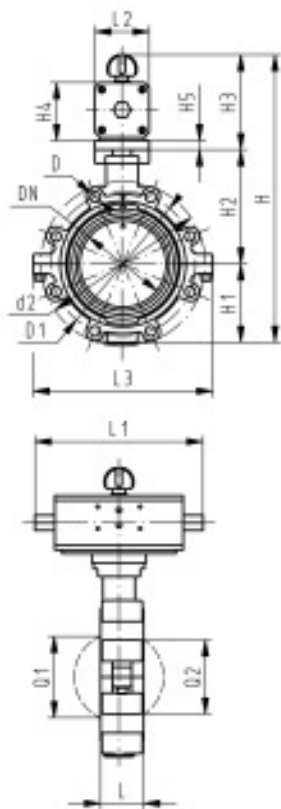
## Lugstyle butterfly valve type 241 ABS DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

\* Available on request

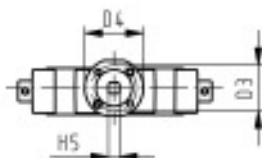
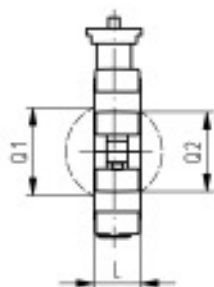
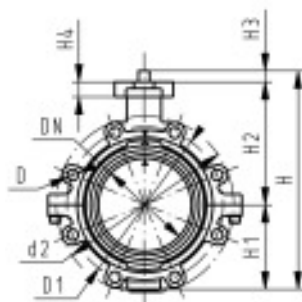


| d<br>[mm] | DN<br>[mm]            | Inch       | PN         | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code |           |            |            |            |            |            |           |            |            |
|-----------|-----------------------|------------|------------|-----------------------------------|--------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| *63       | 50                    | 2          | 10         | 1470                              | 199 241 442  |           |            |            |            |            |            |           |            |            |
| *75       | 65                    | 2 ½        | 10         | 2200                              | 199 241 443  |           |            |            |            |            |            |           |            |            |
| 90        | 80                    | 3          | 10         | 3000                              | 199 241 444  |           |            |            |            |            |            |           |            |            |
| 110       | 100                   | 4          | 10         | 6500                              | 199 241 445  |           |            |            |            |            |            |           |            |            |
| *140      | 125                   | 5          | 10         | 11500                             | 199 241 446  |           |            |            |            |            |            |           |            |            |
| 160       | 150                   | 6          | 10         | 16600                             | 199 241 447  |           |            |            |            |            |            |           |            |            |
| 225       | 200                   | 8          | 10         | 39600                             | 199 241 448  |           |            |            |            |            |            |           |            |            |
| d<br>[mm] | Actuator<br>unit type |            | D          | D1<br>[mm]                        | d2<br>[mm]   | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
| *63       | PA-35 DA              |            | M16        | 125                               | 150          | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         |
| *75       | PA-35 DA              |            | M16        | 145                               | 170          | 330       | 83         | 140        | 107        | 60         |            | 46        | 177        | 55         |
| 90        | PA-40 DA              |            | M16        | 160                               | 184          | 348       | 89         | 146        | 113        | 66         | 49         | 190       | 60         |            |
| 110       | PA-45 DA              |            | M16        | 180                               | 216          | 373       | 104        | 167        | 102        | 71         | 56         | 198       | 65         |            |
| *140      | PA-45 DA              |            | M16        | 210                               | 246          | 409       | 117        | 181        | 111        | 78         | 64         | 235       | 72         |            |
| 160       | PA-55 DA              |            | M20        | 240                               | 273          | 448       | 130        | 189        | 129        | 86         | 72         | 250       | 80         |            |
| 225       | PA-55 DA              |            | M20        | 295                               | 334          | 507       | 158        | 210        | 139        | 96         | 73         | 279       | 90         |            |
| d<br>[mm] | L3<br>[mm]            | Q1<br>[mm] | Q2<br>[mm] |                                   |              |           |            |            |            |            |            |           |            |            |
| *63       | 150                   | 40         |            |                                   |              |           |            |            |            |            |            |           |            |            |
| *75       | 160                   | 54         | 35         |                                   |              |           |            |            |            |            |            |           |            |            |
| 90        | 205                   | 67         | 50         |                                   |              |           |            |            |            |            |            |           |            |            |
| 110       | 244                   | 88         | 74         |                                   |              |           |            |            |            |            |            |           |            |            |
| *140      | 272                   | 113        | 97         |                                   |              |           |            |            |            |            |            |           |            |            |
| 160       | 297                   | 139        | 123        |                                   |              |           |            |            |            |            |            |           |            |            |
| 225       | 360                   | 178        | 169        |                                   |              |           |            |            |            |            |            |           |            |            |



# Butterfly valves PP-H metric

## Lugstyle butterfly valve type 568 PP-H Bare shaft

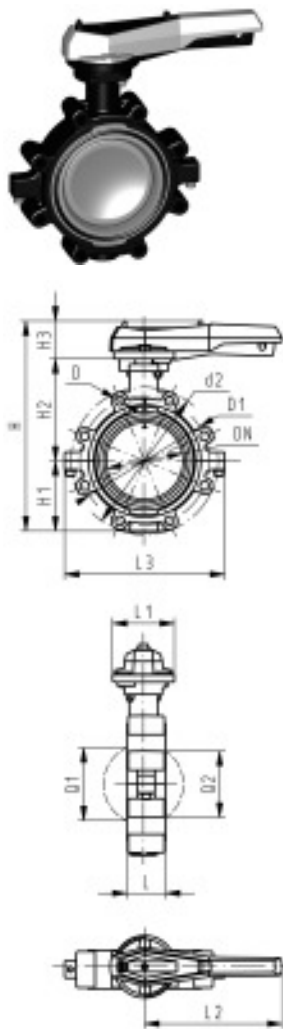


### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>167 568 802</b> | <b>167 568 822</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>167 568 803</b> | <b>167 568 823</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>167 568 804</b> | <b>167 568 824</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>167 568 805</b> | <b>167 568 825</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>167 568 806</b> | <b>167 568 826</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>167 568 807</b> | <b>167 568 827</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>167 568 808</b> | <b>167 568 828</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| 63        | 150        | M16 | 125        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |  |
| 75        | 170        | M16 | 145        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |  |



## Lugstyle butterfly valve type 568 PP-H Hand lever with ratchet settings



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>167 568 002</b> | <b>167 568 022</b> |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>167 568 003</b> | <b>167 568 023</b> |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>167 568 004</b> | <b>167 568 024</b> |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>167 568 005</b> | <b>167 568 025</b> |  |  |  |  |  |  |  |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>167 568 006</b> | <b>167 568 026</b> |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>167 568 007</b> | <b>167 568 027</b> |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>167 568 008</b> | <b>167 568 028</b> |  |  |  |  |  |  |  |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|--|
| 63        | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |  |
| 75        | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |  |
| 140       | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |  |

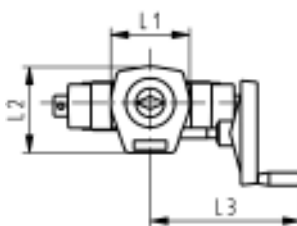
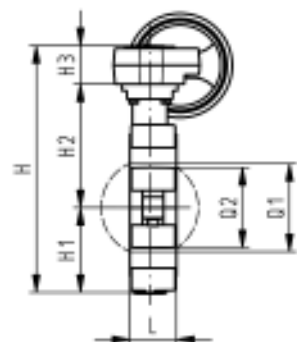
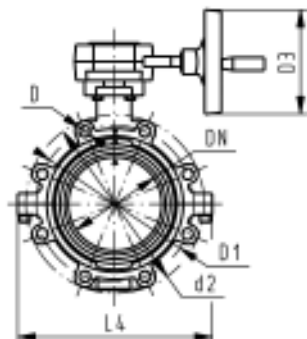


## Lugstyle butterfly valve type 568 PP-H Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

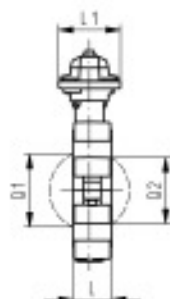
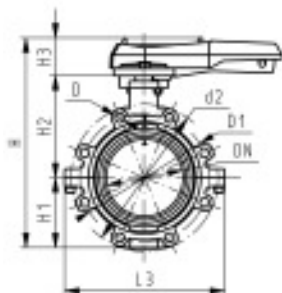


| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>167 568 042</b> | <b>167 568 062</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>167 568 043</b> | <b>167 568 063</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>167 568 044</b> | <b>167 568 064</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>167 568 045</b> | <b>167 568 065</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>167 568 046</b> | <b>167 568 066</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>167 568 047</b> | <b>167 568 067</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>167 568 048</b> | <b>167 568 068</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|--|
| 63        | 150        | M16 | 125        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |            |  |
| 75        | 170        | M16 | 145        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        | 169        |  |

# Butterfly valves PROGEF® SF metric

## PROGEF® PLUS silicone free Lugstyle butterfly valve type 568 PP-H SF Hand lever with ratchet settings



### Model:

- Silicon-free / paint-compatible
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

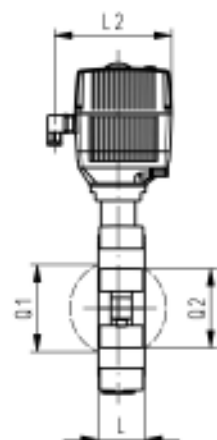
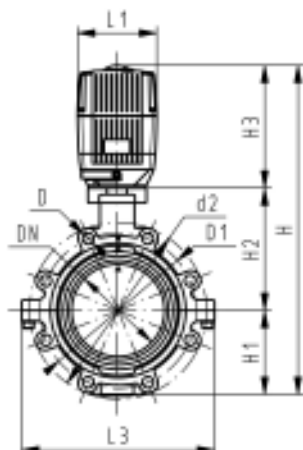
| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>167 568 402</b> | <b>167 568 422</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>167 568 403</b> | <b>167 568 423</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>167 568 404</b> | <b>167 568 424</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>167 568 405</b> | <b>167 568 425</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>167 568 406</b> | <b>167 568 426</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>167 568 407</b> | <b>167 568 427</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>167 568 408</b> | <b>167 568 428</b> |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 63        | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 75        | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |

# Butterfly valves electric PP-H metric

## Lugstyle butterfly valve type 141 PP-H 100-230V

### Without manual override



#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|-----------|------------|------|----|-----------------------------------|--------------|-------------|--|
| 63        | 50         | 2    | 10 | 1470                              | 199 141 362  | 199 141 382 |  |
| 75        | 65         | 2 ½  | 10 | 2200                              | 199 141 363  | 199 141 383 |  |
| 90        | 80         | 3    | 10 | 3000                              | 199 141 364  | 199 141 384 |  |
| 110       | 100        | 4    | 10 | 6500                              | 199 141 365  | 199 141 385 |  |
| 140       | 125        | 5    | 10 | 11500                             | 199 141 366  | 199 141 386 |  |
| 160       | 150        | 6    | 10 | 16600                             | 199 141 367  | 199 141 387 |  |
| 225       | 200        | 8    | 10 | 39600                             | 199 141 368  | 199 141 388 |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |            |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         | 35         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         | 50         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         | 74         |
| 140       | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        | 97         |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        | 123        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        | 169        |

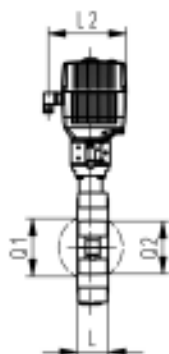
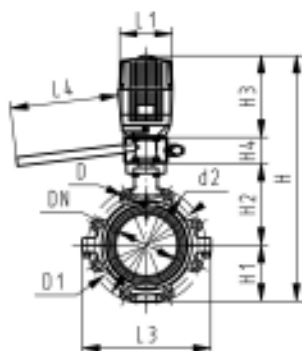


## Lugstyle butterfly valve type 141 PP-H 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 141 322</b> | <b>199 141 342</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 323</b> | <b>199 141 343</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 324</b> | <b>199 141 344</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 325</b> | <b>199 141 345</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 141 326</b> | <b>199 141 346</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 327</b> | <b>199 141 347</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 328</b> | <b>199 141 348</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        | 200        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        | 200        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        | 200        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        | 250        |
| 140       | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        | 250        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        | 250        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        | 250        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |



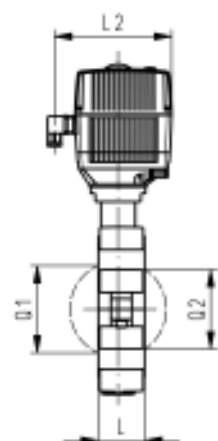
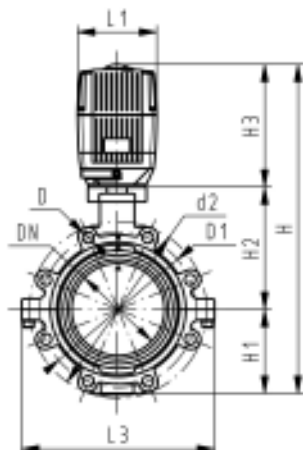


## Lugstyle butterfly valve type 141 PP-H 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |
|-----------|------------|------|----|-----------------------------------|--------------|-------------|
| 63        | 50         | 2    | 10 | 1470                              | 199 141 442  | 199 141 462 |
| 75        | 65         | 2 ½  | 10 | 2200                              | 199 141 443  | 199 141 463 |
| 90        | 80         | 3    | 10 | 3000                              | 199 141 444  | 199 141 464 |
| 110       | 100        | 4    | 10 | 6500                              | 199 141 445  | 199 141 465 |
| 140       | 125        | 5    | 10 | 11500                             | 199 141 446  | 199 141 466 |
| 160       | 150        | 6    | 10 | 16600                             | 199 141 447  | 199 141 467 |
| 225       | 200        | 8    | 10 | 39600                             | 199 141 448  | 199 141 468 |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |            |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         | 35         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         | 50         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         | 74         |
| 140       | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        | 97         |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        | 123        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        | 169        |

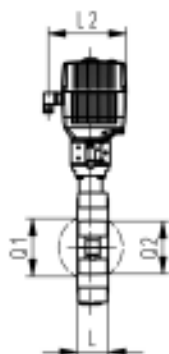
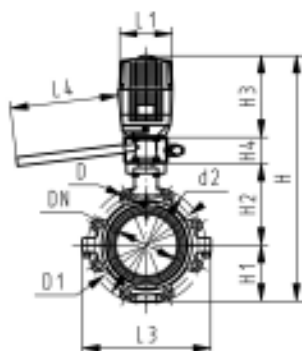


## Lugstyle butterfly valve type 141 PP-H 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



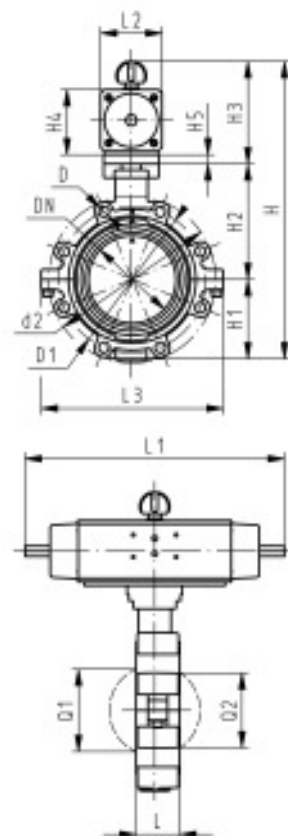
| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|-----------|------------|------|----|--------------------------------------------|--------------|-------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | 199 141 402  | 199 141 422 |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | 199 141 403  | 199 141 423 |  |
| 90        | 80         | 3    | 10 | 3000                                       | 199 141 404  | 199 141 424 |  |
| 110       | 100        | 4    | 10 | 6500                                       | 199 141 405  | 199 141 425 |  |
| 140       | 125        | 5    | 10 | 11500                                      | 199 141 406  | 199 141 426 |  |
| 160       | 150        | 6    | 10 | 16600                                      | 199 141 407  | 199 141 427 |  |
| 225       | 200        | 8    | 10 | 39600                                      | 199 141 408  | 199 141 428 |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        | 200        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        | 200        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        | 200        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        | 250        |
| 140       | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        | 250        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        | 250        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        | 250        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |

# Butterfly valves pneumatic PP-H metric

## Lugstyle butterfly valve type 241 PP-H FC (Fail safe to close) Without manual override



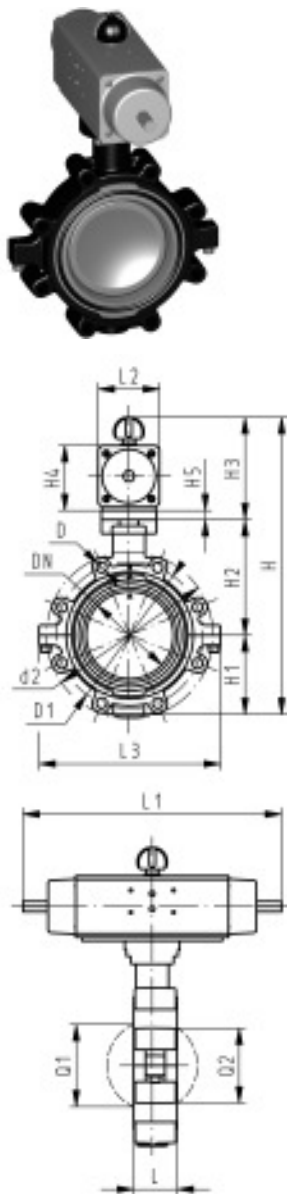
### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |
|-----------|------------|------|----|--------------------------------------------|--------------|-------------|
| 63        | 50         | 2    | 10 | 1470                                       | 199 241 282  | 199 241 302 |
| 75        | 65         | 2 ½  | 10 | 2200                                       | 199 241 283  | 199 241 303 |
| 90        | 80         | 3    | 10 | 3000                                       | 199 241 284  | 199 241 304 |
| 110       | 100        | 4    | 10 | 6500                                       | 199 241 285  | 199 241 305 |
| 140       | 125        | 5    | 10 | 11500                                      | 199 241 286  | 199 241 306 |
| 160       | 150        | 6    | 10 | 16600                                      | 199 241 287  | 199 241 307 |
| 225       | 200        | 8    | 10 | 39600                                      | 199 241 288  | 199 241 308 |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-30 FC              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         | 150        |
| 75        | PA-30 FC              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         | 160        |
| 90        | PA-35 FC              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         | 205        |
| 110       | PA-40 FC              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         | 244        |
| 140       | PA-45 FC              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         | 272        |
| 160       | PA-50 FC              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        | 297        |
| 225       | PA-55 FC              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|
| 63        | 40         |            |
| 75        | 54         | 35         |
| 90        | 67         | 50         |
| 110       | 88         | 74         |
| 140       | 113        | 97         |
| 160       | 139        | 123        |
| 225       | 178        | 169        |



## Lugstyle butterfly valve type 241 PP-H FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------|-------------|--|--|--|--|--|--|--|--|
| 63        | 50         | 2    | 10 | 1470                                       | 199 241 322  | 199 241 342 |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | 199 241 323  | 199 241 343 |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | 199 241 324  | 199 241 344 |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | 199 241 325  | 199 241 345 |  |  |  |  |  |  |  |  |
| 140       | 125        | 5    | 10 | 11500                                      | 199 241 326  | 199 241 346 |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | 199 241 327  | 199 241 347 |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | 199 241 328  | 199 241 348 |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-30 FO              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         | 150        |
| 75        | PA-30 FO              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         | 160        |
| 90        | PA-35 FO              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         | 205        |
| 110       | PA-40 FO              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         | 244        |
| 140       | PA-45 FO              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         | 272        |
| 160       | PA-50 FO              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        | 297        |
| 225       | PA-55 FO              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|------------|------------|--|--|--|--|--|--|--|--|--|--|--|--|
| 63        | 40         |            |  |  |  |  |  |  |  |  |  |  |  |  |
| 75        | 54         | 35         |  |  |  |  |  |  |  |  |  |  |  |  |
| 90        | 67         | 50         |  |  |  |  |  |  |  |  |  |  |  |  |
| 110       | 88         | 74         |  |  |  |  |  |  |  |  |  |  |  |  |
| 140       | 113        | 97         |  |  |  |  |  |  |  |  |  |  |  |  |
| 160       | 139        | 123        |  |  |  |  |  |  |  |  |  |  |  |  |
| 225       | 178        | 169        |  |  |  |  |  |  |  |  |  |  |  |  |

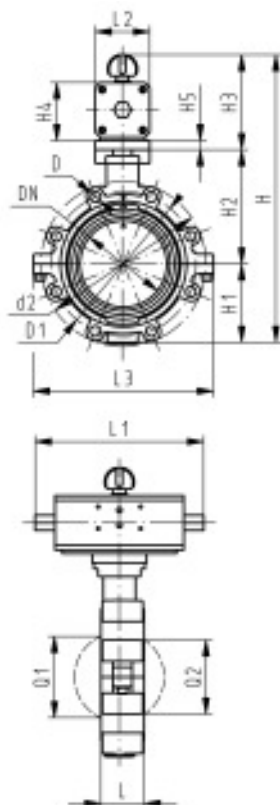


## Lugstyle butterfly valve type 241 PP-H DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 241 362</b> | <b>199 241 382</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 363</b> | <b>199 241 383</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 364</b> | <b>199 241 384</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 365</b> | <b>199 241 385</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 241 366</b> | <b>199 241 386</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 367</b> | <b>199 241 387</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 368</b> | <b>199 241 388</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-35 DA              | M16 | 125        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         | 150        |
| 75        | PA-35 DA              | M16 | 145        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        | 55         | 160        |
| 90        | PA-40 DA              | M16 | 160        | 184        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        | 60         | 205        |
| 110       | PA-45 DA              | M16 | 180        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         | 244        |
| 140       | PA-45 DA              | M16 | 210        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         | 272        |
| 160       | PA-55 DA              | M20 | 240        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         | 297        |
| 225       | PA-55 DA              | M20 | 295        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         | 360        |

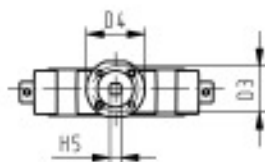
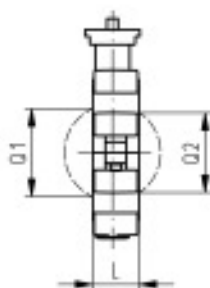
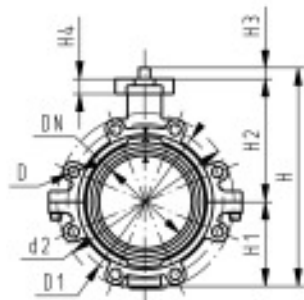
| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |

# Butterfly valves SYGEF® metric

## SYGEF® standard

### Lugstyle butterfly valve type 568 PVDF

#### Bare shaft



#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code |
|-----------|------------|------|----|--------------------------------------------|-------------|
| 63        | 50         | 2    | 10 | 1470                                       | 175 568 822 |
| 75        | 65         | 2 ½  | 10 | 2200                                       | 175 568 823 |
| 90        | 80         | 3    | 10 | 3000                                       | 175 568 824 |
| 110       | 100        | 4    | 10 | 6500                                       | 175 568 825 |
| 140       | 125        | 5    | 10 | 11500                                      | 175 568 826 |
| 160       | 150        | 6    | 10 | 16600                                      | 175 568 827 |
| 225       | 200        | 8    | 10 | 39600                                      | 175 568 828 |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|-----|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| 63        | 150        | M16 | 125        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |
| 75        | 170        | M16 | 145        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |
| 90        | 184        | M16 | 160        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |
| 110       | 216        | M16 | 180        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |
| 140       | 246        | M16 | 210        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |
| 160       | 273        | M20 | 240        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |
| 225       | 334        | M20 | 295        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |



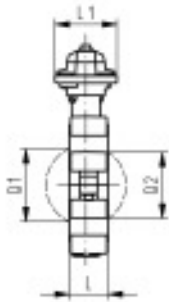
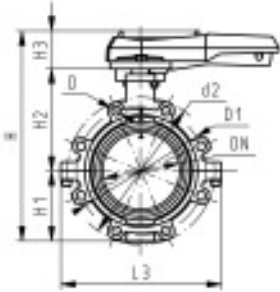


## SYGEF® standard Lugstyle butterfly valve type 568 PVDF Hand lever with ratchet settings



### Model:

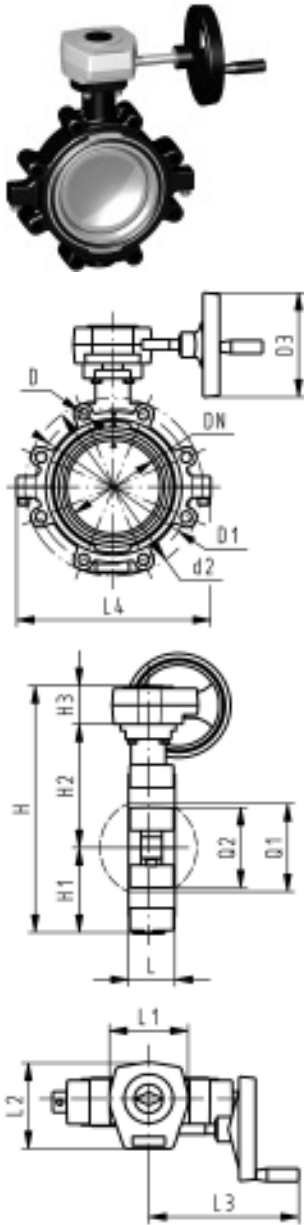
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752



| d<br>[mm] | DN<br>[mm] | Inch  | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |  |  |  |  |  |  |  |
|-----------|------------|-------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|
| 63        | 50         | 2     | 10 | 1470                                       | <b>175 568 002</b> |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 1/2 | 10 | 2200                                       | <b>175 568 003</b> |  |  |  |  |  |  |  |  |
| 90        | 80         | 3     | 10 | 3000                                       | <b>175 568 004</b> |  |  |  |  |  |  |  |  |
| 110       | 100        | 4     | 10 | 6500                                       | <b>175 568 005</b> |  |  |  |  |  |  |  |  |
| 140       | 125        | 5     | 10 | 11500                                      | <b>175 568 006</b> |  |  |  |  |  |  |  |  |
| 160       | 150        | 6     | 10 | 16600                                      | <b>175 568 007</b> |  |  |  |  |  |  |  |  |
| 225       | 200        | 8     | 10 | 39600                                      | <b>175 568 008</b> |  |  |  |  |  |  |  |  |

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|-----|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 63        | 150        | M16 | 125        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 75        | 170        | M16 | 145        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 90        | 184        | M16 | 160        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 205        | 67         | 50         |  |
| 110       | 216        | M16 | 180        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 140       | 246        | M16 | 210        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 160       | 273        | M20 | 240        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 225       | 334        | M20 | 295        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |



## SYGEF® standard

### Lugstyle butterfly valve type 568 PVDF

### Reduction gear with handwheel



#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |  |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>175 568 022</b> |  |  |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>175 568 023</b> |  |  |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>175 568 024</b> |  |  |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>175 568 025</b> |  |  |  |  |  |  |  |  |  |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>175 568 026</b> |  |  |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>175 568 027</b> |  |  |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>175 568 028</b> |  |  |  |  |  |  |  |  |  |  |

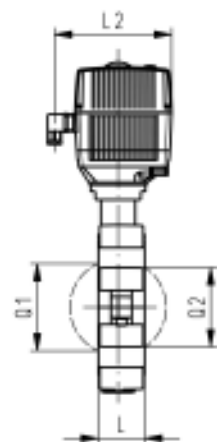
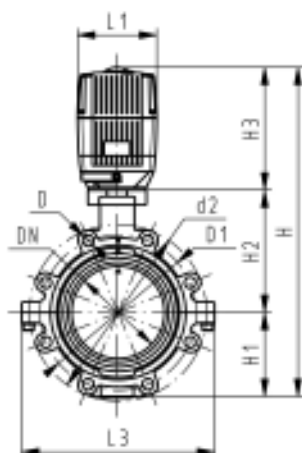
  

| d<br>[mm] | d2<br>[mm] | D   | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|
| 63        | 150        | M16 | 125        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |            |
| 75        | 170        | M16 | 145        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         | 35         |
| 90        | 184        | M16 | 160        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 205        | 67         | 50         |
| 110       | 216        | M16 | 180        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         | 74         |
| 140       | 246        | M16 | 210        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        | 97         |
| 160       | 273        | M20 | 240        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        | 123        |
| 225       | 334        | M20 | 295        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        | 169        |

# Butterfly valves electric SYGEF® metric

## SYGEF® standard

### Lugstyle butterfly valve type 141 100-230V Without manual override



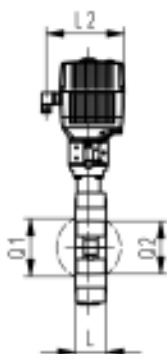
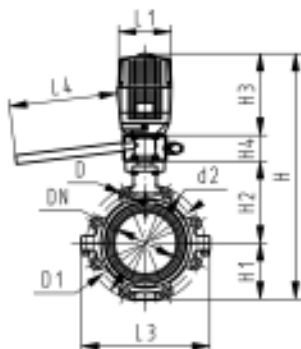
#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | FPM<br>Code        |  |  |  |  |  |  |  |  |  |
|-----------|------------|------|----|-----------------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| 63        | 50         | 2    | 10 | 1470                              | <b>199 141 582</b> |  |  |  |  |  |  |  |  |  |
| 75        | 65         | 2 ½  | 10 | 2200                              | <b>199 141 583</b> |  |  |  |  |  |  |  |  |  |
| 90        | 80         | 3    | 10 | 3000                              | <b>199 141 584</b> |  |  |  |  |  |  |  |  |  |
| 110       | 100        | 4    | 10 | 6500                              | <b>199 141 585</b> |  |  |  |  |  |  |  |  |  |
| 140       | 125        | 5    | 10 | 11500                             | <b>199 141 586</b> |  |  |  |  |  |  |  |  |  |
| 160       | 150        | 6    | 10 | 16600                             | <b>199 141 587</b> |  |  |  |  |  |  |  |  |  |
| 225       | 200        | 8    | 10 | 39600                             | <b>199 141 588</b> |  |  |  |  |  |  |  |  |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |            |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         | 35         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         | 50         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         | 74         |
| 140       | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        | 97         |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        | 123        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        | 169        |



## SYGEF® standard Lugstyle butterfly valve type 141 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|-----------|------------|------|----|--------------------------------------------|--------------------|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 141 562</b> |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 563</b> |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 564</b> |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 565</b> |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 141 566</b> |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 567</b> |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 568</b> |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        | 200        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        | 200        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        | 200        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        | 250        |
| 140       | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        | 250        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        | 250        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        | 250        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|
| 63        | 40         |            |
| 75        | 54         | 35         |
| 90        | 67         | 50         |
| 110       | 88         | 74         |
| 140       | 113        | 97         |
| 160       | 139        | 123        |
| 225       | 178        | 169        |

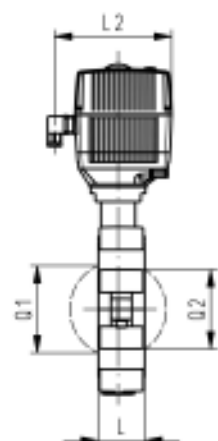
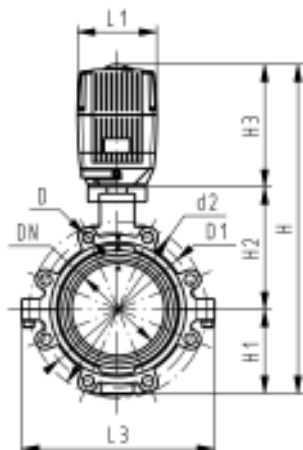


## SYGEF® standard Lugstyle butterfly valve type 141 24V Without manual override



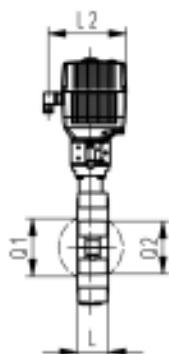
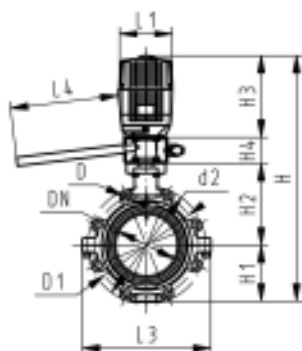
### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>(Δp=1 bar)<br>[l/min] | FPM<br>Code        |  |
|-----------|------------|------|----|-----------------------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                              | <b>199 141 622</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                              | <b>199 141 623</b> |  |
| 90        | 80         | 3    | 10 | 3000                              | <b>199 141 624</b> |  |
| 110       | 100        | 4    | 10 | 6500                              | <b>199 141 625</b> |  |
| 140       | 125        | 5    | 10 | 11500                             | <b>199 141 626</b> |  |
| 160       | 150        | 6    | 10 | 16600                             | <b>199 141 627</b> |  |
| 225       | 200        | 8    | 10 | 39600                             | <b>199 141 628</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |            |
| 75        | EA-31                 | M16 | 145        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         | 35         |
| 90        | EA-31                 | M16 | 160        | 184        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 205        | 67         | 50         |
| 110       | EA-31                 | M16 | 180        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         | 74         |
| 140       | EA-31                 | M16 | 210        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        | 97         |
| 160       | EA-31                 | M20 | 240        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        | 123        |
| 225       | EA-42                 | M20 | 295        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        | 169        |



## SYGEF® standard Lugstyle butterfly valve type 141 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|-----------|------------|------|----|--------------------------------------------|--------------------|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 141 602</b> |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 141 603</b> |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 141 604</b> |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 141 605</b> |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 141 606</b> |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 141 607</b> |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 141 608</b> |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 63        | EA-31                 | M16 | 125        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        | 200        |
| 75        | EA-31                 | M16 | 145        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        | 200        |
| 90        | EA-31                 | M16 | 160        | 184        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 205        | 200        |
| 110       | EA-31                 | M16 | 180        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        | 250        |
| 140       | EA-31                 | M16 | 210        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        | 250        |
| 160       | EA-31                 | M20 | 240        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        | 250        |
| 225       | EA-42                 | M20 | 295        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        | 250        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|
| 63        | 40         |            |
| 75        | 54         | 35         |
| 90        | 67         | 50         |
| 110       | 88         | 74         |
| 140       | 113        | 97         |
| 160       | 139        | 123        |
| 225       | 178        | 169        |

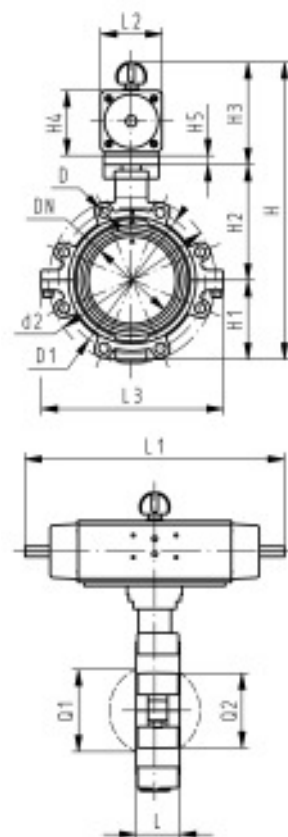
# Butterfly valves pneumatic SYGEF® metric

## SYGEF® standard

### Lugstyle butterfly valve type 241

### FC (Fail safe to close)

### Without manual override



#### Model:

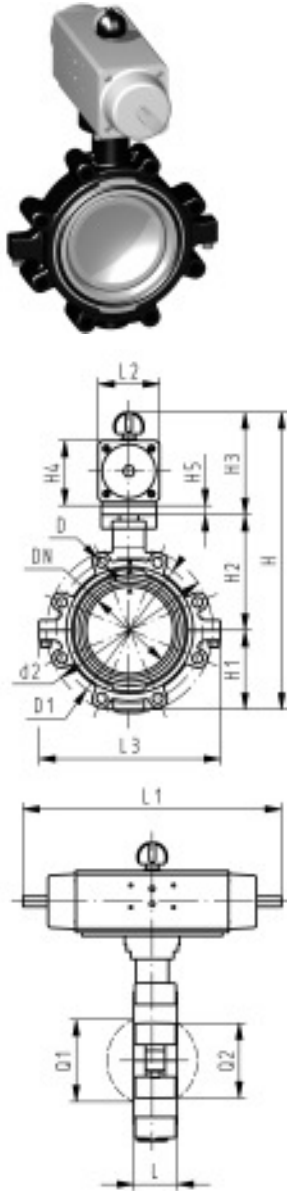
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 241 462</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 463</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 464</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 465</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 241 466</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 467</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 468</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-30 FC              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         | 150        |
| 75        | PA-30 FC              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         | 160        |
| 90        | PA-35 FC              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         | 205        |
| 110       | PA-40 FC              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         | 244        |
| 140       | PA-45 FC              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         | 272        |
| 160       | PA-50 FC              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        | 297        |
| 225       | PA-55 FC              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |





# SYGEF® standard Lugstyle butterfly valve type 241 FO (Fail safe to open) Without manual override



## Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|-----------|------------|------|----|--------------------------------------------|--------------------|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 241 482</b> |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 483</b> |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 484</b> |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 485</b> |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 241 486</b> |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 487</b> |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 488</b> |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-30 FO              | M16 | 125        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         | 150        |
| 75        | PA-30 FO              | M16 | 145        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         | 160        |
| 90        | PA-35 FO              | M16 | 160        | 184        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         | 205        |
| 110       | PA-40 FO              | M16 | 180        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         | 244        |
| 140       | PA-45 FO              | M16 | 210        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         | 272        |
| 160       | PA-50 FO              | M20 | 240        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        | 297        |
| 225       | PA-55 FO              | M20 | 295        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|-----------|------------|------------|
| 63        | 40         |            |
| 75        | 54         | 35         |
| 90        | 67         | 50         |
| 110       | 88         | 74         |
| 140       | 113        | 97         |
| 160       | 139        | 123        |
| 225       | 178        | 169        |

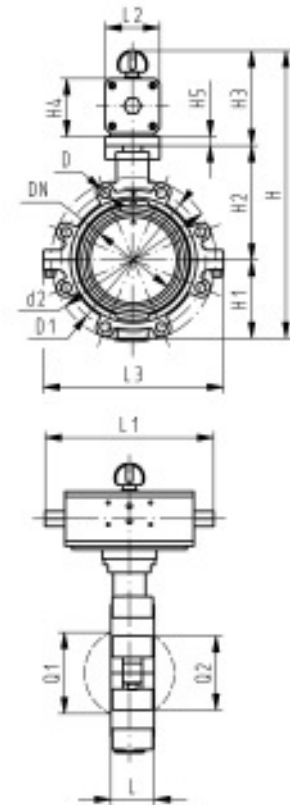


# SYGEF® standard Lugstyle butterfly valve type 241 DA (Double acting) Without manual override



## Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)



| d<br>[mm] | DN<br>[mm] | Inch | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |
|-----------|------------|------|----|--------------------------------------------|--------------------|--|
| 63        | 50         | 2    | 10 | 1470                                       | <b>199 241 502</b> |  |
| 75        | 65         | 2 ½  | 10 | 2200                                       | <b>199 241 503</b> |  |
| 90        | 80         | 3    | 10 | 3000                                       | <b>199 241 504</b> |  |
| 110       | 100        | 4    | 10 | 6500                                       | <b>199 241 505</b> |  |
| 140       | 125        | 5    | 10 | 11500                                      | <b>199 241 506</b> |  |
| 160       | 150        | 6    | 10 | 16600                                      | <b>199 241 507</b> |  |
| 225       | 200        | 8    | 10 | 39600                                      | <b>199 241 508</b> |  |

| d<br>[mm] | Actuator<br>unit type | D   | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------------------|-----|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 63        | PA-35 DA              | M16 | 125        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         | 150        |
| 75        | PA-35 DA              | M16 | 145        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        | 55         | 160        |
| 90        | PA-40 DA              | M16 | 160        | 184        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        | 60         | 205        |
| 110       | PA-45 DA              | M16 | 180        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         | 244        |
| 140       | PA-45 DA              | M16 | 210        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         | 272        |
| 160       | PA-55 DA              | M20 | 240        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         | 297        |
| 225       | PA-55 DA              | M20 | 295        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         | 360        |

| d<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|-----------|------------|------------|--|
| 63        | 40         |            |  |
| 75        | 54         | 35         |  |
| 90        | 67         | 50         |  |
| 110       | 88         | 74         |  |
| 140       | 113        | 97         |  |
| 160       | 139        | 123        |  |
| 225       | 178        | 169        |  |

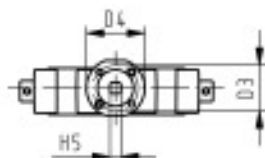
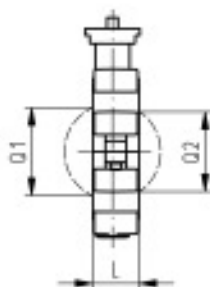
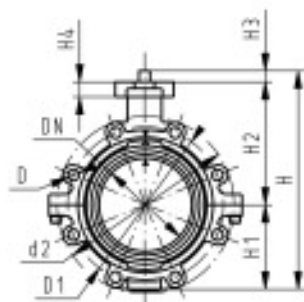
# Butterfly valves PVC-U ANSI

## Lugstyle butterfly valve type 568 PVC-U Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211



| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |
|------|------------|----|--------------------------------------------|--------------------|--------------------|
| 2    | 50         | 10 | 1470                                       | <b>161 568 902</b> | <b>161 568 922</b> |
| 2 ½  | 65         | 10 | 2200                                       | <b>161 568 903</b> | <b>161 568 923</b> |
| 3    | 80         | 10 | 3000                                       | <b>161 568 904</b> | <b>161 568 924</b> |
| 4    | 100        | 10 | 6500                                       | <b>161 568 905</b> | <b>161 568 925</b> |
| 5    | 125        | 10 | 11500                                      | <b>161 568 906</b> | <b>161 568 926</b> |
| 6    | 150        | 10 | 16600                                      | <b>161 568 907</b> | <b>161 568 927</b> |
| 8    | 200        | 10 | 39600                                      | <b>161 568 908</b> | <b>161 568 928</b> |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|---------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | 150        | UNC 5/8 | 121        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |
| 2 ½  | 170        | UNC 5/8 | 138        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |
| 3    | 177        | UNC 5/8 | 152        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |
| 4    | 216        | UNC 5/8 | 191        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |
| 5    | 246        | UNC 3/4 | 216        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |
| 6    | 273        | UNC 3/4 | 241        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |
| 8    | 334        | UNC 3/4 | 298        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |

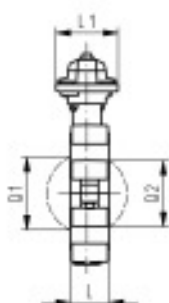
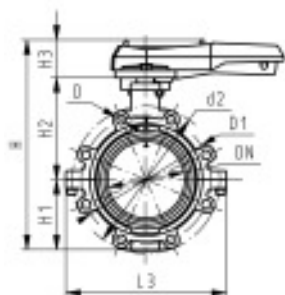


## Lugstyle butterfly valve type 568 PVC-U Hand lever with ratchet settings



### Model:

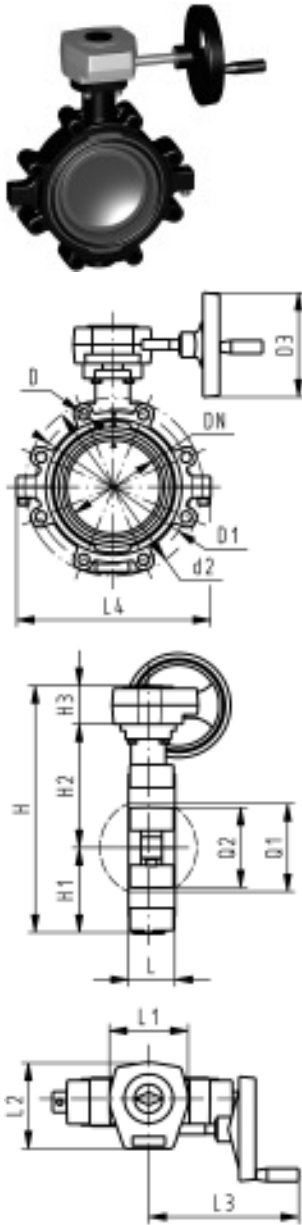
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752



| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |  |  |
|------|------------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|--|--|
| 2    | 50         | 10 | 1470                                       | <b>161 568 102</b> | <b>161 568 122</b> |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 65         | 10 | 2200                                       | <b>161 568 103</b> | <b>161 568 123</b> |  |  |  |  |  |  |  |  |  |  |
| 3    | 80         | 10 | 3000                                       | <b>161 568 104</b> | <b>161 568 124</b> |  |  |  |  |  |  |  |  |  |  |
| 4    | 100        | 10 | 6500                                       | <b>161 568 105</b> | <b>161 568 125</b> |  |  |  |  |  |  |  |  |  |  |
| 5    | 125        | 10 | 11500                                      | <b>161 568 106</b> | <b>161 568 126</b> |  |  |  |  |  |  |  |  |  |  |
| 6    | 150        | 10 | 16600                                      | <b>161 568 107</b> | <b>161 568 127</b> |  |  |  |  |  |  |  |  |  |  |
| 8    | 200        | 10 | 39600                                      | <b>161 568 108</b> | <b>161 568 128</b> |  |  |  |  |  |  |  |  |  |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |
|------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|--|
| 2    | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |  |
| 3    | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |  |  |
| 4    | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |  |
| 5    | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |  |
| 6    | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |  |
| 8    | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |  |



## Lugstyle butterfly valve type 568 PVC-U Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |  |  |
|------|------------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|--|--|
| 2    | 50         | 10 | 1470                                       | <b>161 568 142</b> | <b>161 568 162</b> |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 65         | 10 | 2200                                       | <b>161 568 143</b> | <b>161 568 163</b> |  |  |  |  |  |  |  |  |  |  |
| 3    | 80         | 10 | 3000                                       | <b>161 568 144</b> | <b>161 568 164</b> |  |  |  |  |  |  |  |  |  |  |
| 4    | 100        | 10 | 6500                                       | <b>161 568 145</b> | <b>161 568 165</b> |  |  |  |  |  |  |  |  |  |  |
| 5    | 125        | 10 | 11500                                      | <b>161 568 146</b> | <b>161 568 166</b> |  |  |  |  |  |  |  |  |  |  |
| 6    | 150        | 10 | 16600                                      | <b>161 568 147</b> | <b>161 568 167</b> |  |  |  |  |  |  |  |  |  |  |
| 8    | 200        | 10 | 39600                                      | <b>161 568 148</b> | <b>161 568 168</b> |  |  |  |  |  |  |  |  |  |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] |
|------|------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 2    | 150        | UNC 5/8 | 121        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |
| 2 ½  | 170        | UNC 5/8 | 138        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         |
| 3    | 177        | UNC 5/8 | 152        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 175        | 67         |
| 4    | 216        | UNC 5/8 | 191        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         |
| 5    | 246        | UNC 3/4 | 216        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        |
| 6    | 273        | UNC 3/4 | 241        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        |
| 8    | 334        | UNC 3/4 | 298        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        |

| Inch | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 2    |            |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 35         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3    | 50         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4    | 74         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5    | 97         |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6    | 123        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8    | 169        |  |  |  |  |  |  |  |  |  |  |  |  |  |

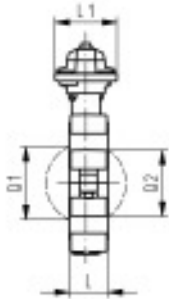
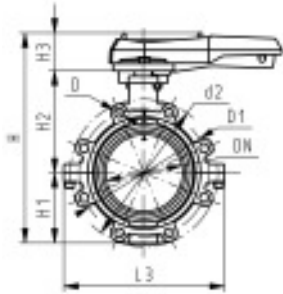
# Butterfly valves PVC-U SF ANSI

## Lugstyle butterfly valve type 568 PVC-U SF Hand lever with ratchet settings



### Model:

- Silicon-free / paint-compatible
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752



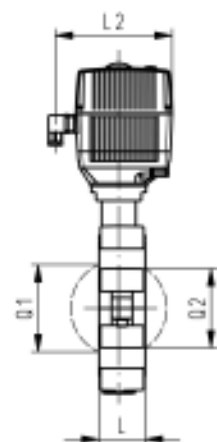
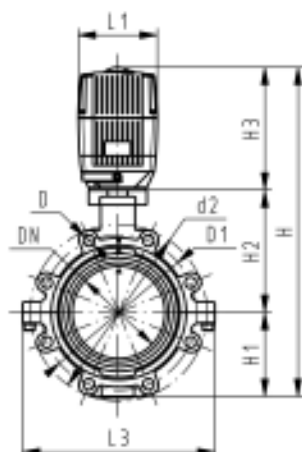
| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|------------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 50         | 10 | 1470                                       | <b>161 568 502</b> | <b>161 568 522</b> |  |
| 2 ½  | 65         | 10 | 2200                                       | <b>161 568 503</b> | <b>161 568 523</b> |  |
| 3    | 80         | 10 | 3000                                       | <b>161 568 504</b> | <b>161 568 524</b> |  |
| 4    | 100        | 10 | 6500                                       | <b>161 568 505</b> | <b>161 568 525</b> |  |
| 5    | 125        | 10 | 11500                                      | <b>161 568 506</b> | <b>161 568 526</b> |  |
| 6    | 150        | 10 | 16600                                      | <b>161 568 507</b> | <b>161 568 527</b> |  |
| 8    | 200        | 10 | 39600                                      | <b>161 568 508</b> | <b>161 568 528</b> |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 2    | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 3    | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |  |
| 4    | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 5    | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 6    | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 8    | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |

# Butterfly valves electric PVC-U ANSI

## Lugstyle butterfly valve type 142 PVC-U 100-230V

### Without manual override



#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |
|------|------------|----|--------------------------------------------|--------------|-------------|
| 2    | 50         | 10 | 1470                                       | 199 142 042  | 199 142 062 |
| 2 ½  | 65         | 10 | 2200                                       | 199 142 043  | 199 142 063 |
| 3    | 80         | 10 | 3000                                       | 199 142 044  | 199 142 064 |
| 4    | 100        | 10 | 6500                                       | 199 142 045  | 199 142 065 |
| 5    | 125        | 10 | 11500                                      | 199 142 046  | 199 142 066 |
| 6    | 150        | 10 | 16600                                      | 199 142 047  | 199 142 067 |
| 8    | 200        | 10 | 39600                                      | 199 142 048  | 199 142 068 |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        | 67         |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| Inch | Q2<br>[mm] |
|------|------------|
| 2    |            |
| 2 ½  | 35         |
| 3    | 50         |
| 4    | 74         |
| 5    | 97         |
| 6    | 123        |
| 8    | 169        |



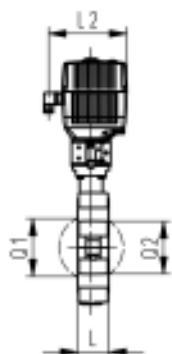
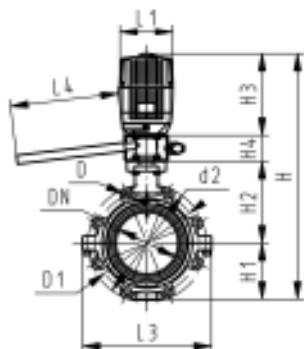


## Lugstyle butterfly valve type 142 PVC-U 100-230V With manual override



### Model:

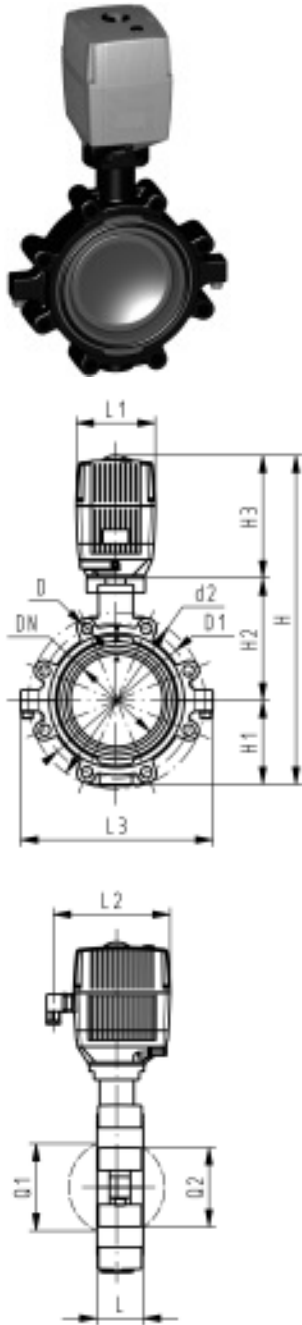
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|------|------------|----|--------------------------------------------|--------------|-------------|--|
| 2    | 50         | 10 | 1470                                       | 199 142 002  | 199 142 022 |  |
| 2 ½  | 65         | 10 | 2200                                       | 199 142 003  | 199 142 023 |  |
| 3    | 80         | 10 | 3000                                       | 199 142 004  | 199 142 024 |  |
| 4    | 100        | 10 | 6500                                       | 199 142 005  | 199 142 025 |  |
| 5    | 125        | 10 | 11500                                      | 199 142 006  | 199 142 026 |  |
| 6    | 150        | 10 | 16600                                      | 199 142 007  | 199 142 027 |  |
| 8    | 200        | 10 | 39600                                      | 199 142 008  | 199 142 028 |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| Inch | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 200        | 40         |            |  |
| 2 ½  | 200        | 54         | 35         |  |
| 3    | 200        | 67         | 50         |  |
| 4    | 250        | 88         | 74         |  |
| 5    | 250        | 113        | 97         |  |
| 6    | 250        | 139        | 123        |  |
| 8    | 250        | 178        | 169        |  |



## Lugstyle butterfly valve type 142 PVC-U 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|------------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 50         | 10 | 1470                                       | <b>199 142 122</b> | <b>199 142 142</b> |  |
| 2 ½  | 65         | 10 | 2200                                       | <b>199 142 123</b> | <b>199 142 143</b> |  |
| 3    | 80         | 10 | 3000                                       | <b>199 142 124</b> | <b>199 142 144</b> |  |
| 4    | 100        | 10 | 6500                                       | <b>199 142 125</b> | <b>199 142 145</b> |  |
| 5    | 125        | 10 | 11500                                      | <b>199 142 126</b> | <b>199 142 146</b> |  |
| 6    | 150        | 10 | 16600                                      | <b>199 142 127</b> | <b>199 142 147</b> |  |
| 8    | 200        | 10 | 39600                                      | <b>199 142 128</b> | <b>199 142 148</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        | 67         |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| Inch | Q2<br>[mm] |  |
|------|------------|--|
| 2    |            |  |
| 2 ½  | 35         |  |
| 3    | 50         |  |
| 4    | 74         |  |
| 5    | 97         |  |
| 6    | 123        |  |
| 8    | 169        |  |

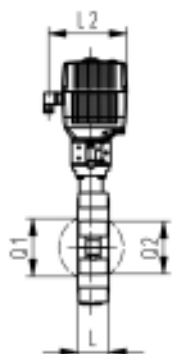
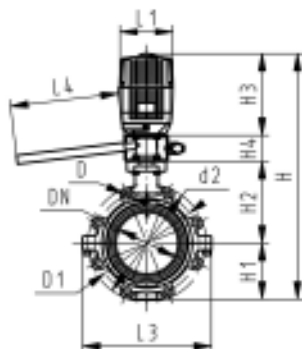


## Lugstyle butterfly valve type 142 PVC-U 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



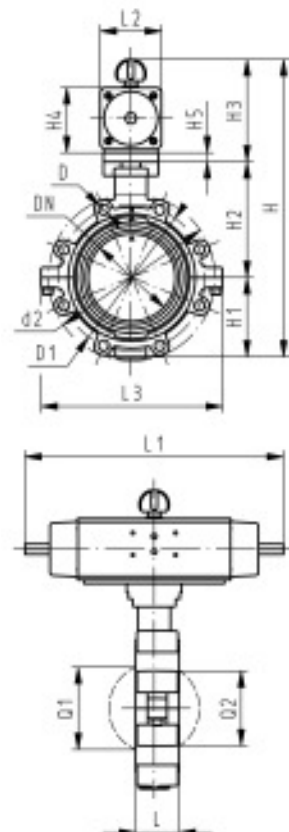
| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|------|------------|----|--------------------------------------------|--------------|-------------|--|
| 2    | 50         | 10 | 1470                                       | 199 142 082  | 199 142 102 |  |
| 2 ½  | 65         | 10 | 2200                                       | 199 142 083  | 199 142 103 |  |
| 3    | 80         | 10 | 3000                                       | 199 142 084  | 199 142 104 |  |
| 4    | 100        | 10 | 6500                                       | 199 142 085  | 199 142 105 |  |
| 5    | 125        | 10 | 11500                                      | 199 142 086  | 199 142 106 |  |
| 6    | 150        | 10 | 16600                                      | 199 142 087  | 199 142 107 |  |
| 8    | 200        | 10 | 39600                                      | 199 142 088  | 199 142 108 |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| Inch | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 200        | 40         |            |  |
| 2 ½  | 200        | 54         | 35         |  |
| 3    | 200        | 67         | 50         |  |
| 4    | 250        | 88         | 74         |  |
| 5    | 250        | 113        | 97         |  |
| 6    | 250        | 139        | 123        |  |
| 8    | 250        | 178        | 169        |  |

# Butterfly valves pneumatic PVC-U ANSI

## Lugstyle butterfly valve type 242 PVC-U FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |  |  |  |  |  |  |  |  |
|------|------------|----|--------------------------------------------|--------------|-------------|--|--|--|--|--|--|--|--|--|
| 2    | 50         | 10 | 1470                                       | 199 242 002  | 199 242 022 |  |  |  |  |  |  |  |  |  |
| 2 ½  | 65         | 10 | 2200                                       | 199 242 003  | 199 242 023 |  |  |  |  |  |  |  |  |  |
| 3    | 80         | 10 | 3000                                       | 199 242 004  | 199 242 024 |  |  |  |  |  |  |  |  |  |
| 4    | 100        | 10 | 6500                                       | 199 242 005  | 199 242 025 |  |  |  |  |  |  |  |  |  |
| 5    | 125        | 10 | 11500                                      | 199 242 006  | 199 242 026 |  |  |  |  |  |  |  |  |  |
| 6    | 150        | 10 | 16600                                      | 199 242 007  | 199 242 027 |  |  |  |  |  |  |  |  |  |
| 8    | 200        | 10 | 39600                                      | 199 242 008  | 199 242 028 |  |  |  |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-30 FC              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 2 ½  | PA-30 FC              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 3    | PA-35 FC              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 4    | PA-40 FC              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| 5    | PA-45 FC              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 6    | PA-50 FC              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 8    | PA-55 FC              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |  |
|------|------------|------------|------------|--|--|--|--|--|--|--|--|--|--|--|
| 2    | 150        | 40         |            |  |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 160        | 54         | 35         |  |  |  |  |  |  |  |  |  |  |  |
| 3    | 175        | 67         | 50         |  |  |  |  |  |  |  |  |  |  |  |
| 4    | 244        | 88         | 74         |  |  |  |  |  |  |  |  |  |  |  |
| 5    | 272        | 113        | 97         |  |  |  |  |  |  |  |  |  |  |  |
| 6    | 297        | 139        | 123        |  |  |  |  |  |  |  |  |  |  |  |
| 8    | 360        | 178        | 169        |  |  |  |  |  |  |  |  |  |  |  |

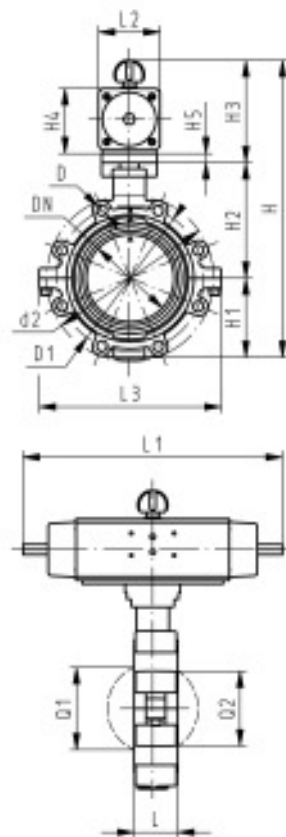


## Lugstyle butterfly valve type 242 PVC-U FO (Fail safe to open) Without manual override



### Model:

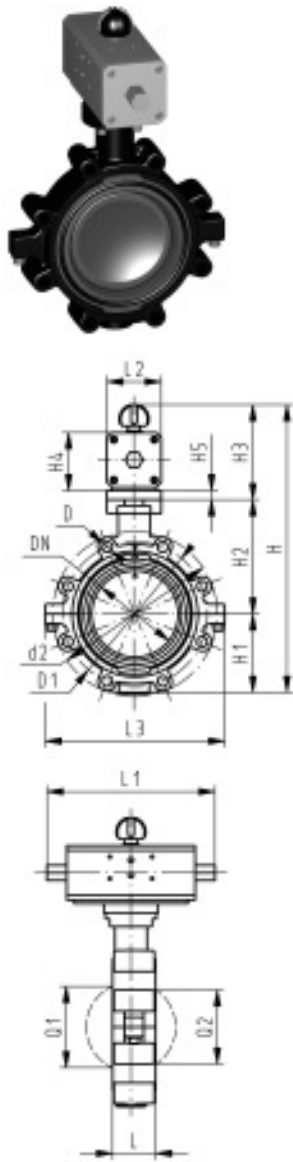
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<



| Inch | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|------------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 50         | 10 | 1470                                       | <b>199 242 042</b> | <b>199 242 062</b> |  |
| 2 ½  | 65         | 10 | 2200                                       | <b>199 242 043</b> | <b>199 242 063</b> |  |
| 3    | 80         | 10 | 3000                                       | <b>199 242 044</b> | <b>199 242 064</b> |  |
| 4    | 100        | 10 | 6500                                       | <b>199 242 045</b> | <b>199 242 065</b> |  |
| 5    | 125        | 10 | 11500                                      | <b>199 242 046</b> | <b>199 242 066</b> |  |
| 6    | 150        | 10 | 16600                                      | <b>199 242 047</b> | <b>199 242 067</b> |  |
| 8    | 200        | 10 | 39600                                      | <b>199 242 048</b> | <b>199 242 068</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-30 FO              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 2 ½  | PA-30 FO              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 3    | PA-35 FO              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 4    | PA-40 FO              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| 5    | PA-45 FO              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 6    | PA-50 FO              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 8    | PA-55 FO              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 150        | 40         |            |  |
| 2 ½  | 160        | 54         | 35         |  |
| 3    | 175        | 67         | 50         |  |
| 4    | 244        | 88         | 74         |  |
| 5    | 272        | 113        | 97         |  |
| 6    | 297        | 139        | 123        |  |
| 8    | 360        | 178        | 169        |  |



## Lugstyle butterfly valve type 242 PVC-U DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

| Inch | DN<br>[mm]            | PN         | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |            |            |            |            |            |           |            |            |
|------|-----------------------|------------|--------------------------------------------|--------------|-------------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | 50                    | 10         | 1470                                       | 199 242 082  | 199 242 102 |            |            |            |            |            |           |            |            |
| 2 ½  | 65                    | 10         | 2200                                       | 199 242 083  | 199 242 103 |            |            |            |            |            |           |            |            |
| 3    | 80                    | 10         | 3000                                       | 199 242 084  | 199 242 104 |            |            |            |            |            |           |            |            |
| 4    | 100                   | 10         | 6500                                       | 199 242 085  | 199 242 105 |            |            |            |            |            |           |            |            |
| 5    | 125                   | 10         | 11500                                      | 199 242 086  | 199 242 106 |            |            |            |            |            |           |            |            |
| 6    | 150                   | 10         | 16600                                      | 199 242 087  | 199 242 107 |            |            |            |            |            |           |            |            |
| 8    | 200                   | 10         | 39600                                      | 199 242 088  | 199 242 108 |            |            |            |            |            |           |            |            |
| Inch | Actuator<br>unit type | D          | D1<br>[mm]                                 | d2<br>[mm]   | H<br>[mm]   | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
| 2    | PA-35 DA              | UNC 5/8    | 121                                        | 150          | 318         | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         |
| 2 ½  | PA-35 DA              | UNC 5/8    | 140                                        | 170          | 330         | 83         | 140        | 107        | 60         | 15         | 46        | 177        | 55         |
| 3    | PA-40 DA              | UNC 5/8    | 153                                        | 177          | 348         | 89         | 146        | 113        | 66         | 15         | 49        | 190        | 60         |
| 4    | PA-45 DA              | UNC 5/8    | 191                                        | 216          | 373         | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         |
| 5    | PA-45 DA              | UNC 3/4    | 216                                        | 246          | 409         | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         |
| 6    | PA-55 DA              | UNC 3/4    | 242                                        | 273          | 448         | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         |
| 8    | PA-55 DA              | UNC 3/4    | 299                                        | 334          | 507         | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         |
| Inch | L3<br>[mm]            | Q1<br>[mm] | Q2<br>[mm]                                 |              |             |            |            |            |            |            |           |            |            |
| 2    | 150                   | 40         |                                            |              |             |            |            |            |            |            |           |            |            |
| 2 ½  | 160                   | 54         | 35                                         |              |             |            |            |            |            |            |           |            |            |
| 3    | 175                   | 67         | 50                                         |              |             |            |            |            |            |            |           |            |            |
| 4    | 244                   | 88         | 74                                         |              |             |            |            |            |            |            |           |            |            |
| 5    | 272                   | 113        | 97                                         |              |             |            |            |            |            |            |           |            |            |
| 6    | 297                   | 139        | 123                                        |              |             |            |            |            |            |            |           |            |            |
| 8    | 360                   | 178        | 169                                        |              |             |            |            |            |            |            |           |            |            |

# Butterfly valves PVC-C ANSI

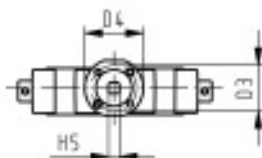
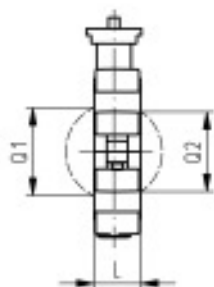
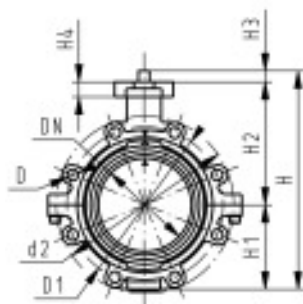
## Lugstyle butterfly valve type 568 PVC-C Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

\* Available on request



| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| *2   | 63        | 50         | 10 | 1470                                       | <b>163 568 902</b> | <b>163 568 922</b> |  |  |  |  |  |  |  |  |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>163 568 903</b> | <b>163 568 923</b> |  |  |  |  |  |  |  |  |
| 3    | 90        | 80         | 10 | 3000                                       | <b>163 568 904</b> | <b>163 568 924</b> |  |  |  |  |  |  |  |  |
| 4    | 110       | 100        | 10 | 6500                                       | <b>163 568 905</b> | <b>163 568 925</b> |  |  |  |  |  |  |  |  |
| *5   | 140       | 125        | 10 | 11500                                      | <b>163 568 906</b> | <b>163 568 926</b> |  |  |  |  |  |  |  |  |
| 6    | 160       | 150        | 10 | 16600                                      | <b>163 568 907</b> | <b>163 568 927</b> |  |  |  |  |  |  |  |  |
| 8    | 225       | 200        | 10 | 39600                                      | <b>163 568 908</b> | <b>163 568 928</b> |  |  |  |  |  |  |  |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|---------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| *2   | 150        | UNC 5/8 | 121        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |  |
| 3    | 177        | UNC 5/8 | 152        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |  |
| 4    | 216        | UNC 5/8 | 191        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |  |
| *5   | 246        | UNC 3/4 | 216        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |  |
| 6    | 273        | UNC 3/4 | 241        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |  |
| 8    | 334        | UNC 3/4 | 298        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |  |





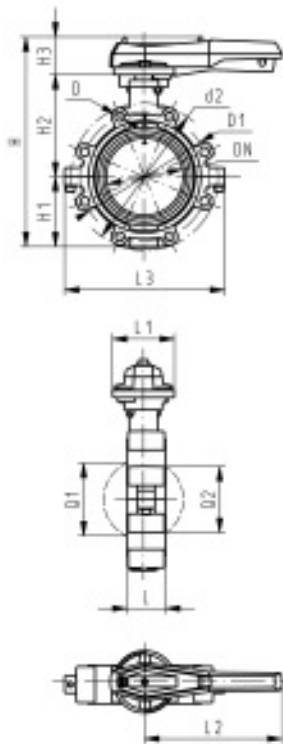
## Lugstyle butterfly valve type 568 PVC-C Hand lever with ratchet settings



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

\* Available on request



| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| *2   | 63        | 50         | 10 | 1470                                       | <b>163 568 102</b> | <b>163 568 122</b> |  |  |  |  |  |  |  |  |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>163 568 103</b> | <b>163 568 123</b> |  |  |  |  |  |  |  |  |
| 3    | 90        | 80         | 10 | 3000                                       | <b>163 568 104</b> | <b>163 568 124</b> |  |  |  |  |  |  |  |  |
| 4    | 110       | 100        | 10 | 6500                                       | <b>163 568 105</b> | <b>163 568 125</b> |  |  |  |  |  |  |  |  |
| *5   | 140       | 125        | 10 | 11500                                      | <b>163 568 106</b> | <b>163 568 126</b> |  |  |  |  |  |  |  |  |
| 6    | 160       | 150        | 10 | 16600                                      | <b>163 568 107</b> | <b>163 568 127</b> |  |  |  |  |  |  |  |  |
| 8    | 225       | 200        | 10 | 39600                                      | <b>163 568 108</b> | <b>163 568 128</b> |  |  |  |  |  |  |  |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| *2   | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |
| 2 ½  | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |
| 3    | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |
| 4    | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |
| *5   | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |
| 6    | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |
| 8    | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |



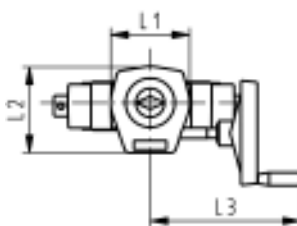
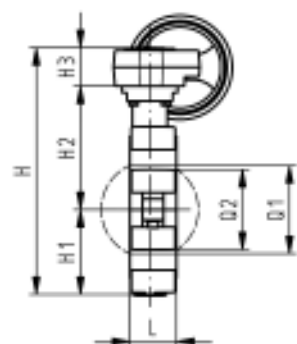
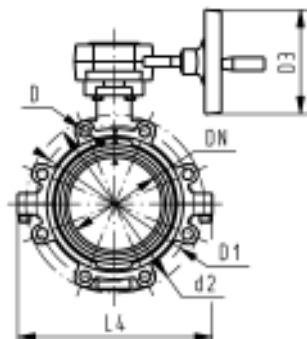
## Lugstyle butterfly valve type 568 PVC-C Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

\* Available on request



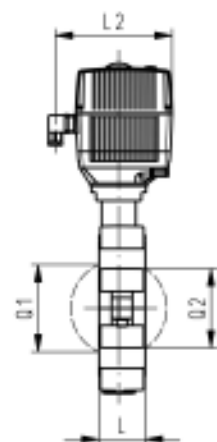
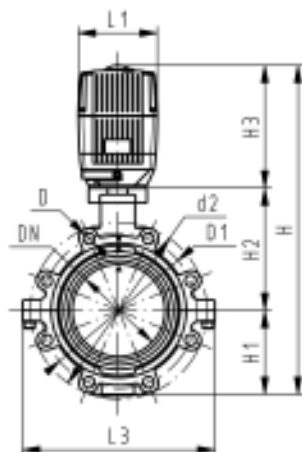
| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|--|
| *2   | 63        | 50         | 10 | 1470                                       | <b>163 568 142</b> | <b>163 568 162</b> |  |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>163 568 143</b> | <b>163 568 163</b> |  |
| 3    | 90        | 80         | 10 | 3000                                       | <b>163 568 144</b> | <b>163 568 164</b> |  |
| 4    | 110       | 100        | 10 | 6500                                       | <b>163 568 145</b> | <b>163 568 165</b> |  |
| *5   | 140       | 125        | 10 | 11500                                      | <b>163 568 146</b> | <b>163 568 166</b> |  |
| 6    | 160       | 150        | 10 | 16600                                      | <b>163 568 147</b> | <b>163 568 167</b> |  |
| 8    | 225       | 200        | 10 | 39600                                      | <b>163 568 148</b> | <b>163 568 168</b> |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |  |
|------|------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|--|
| *2   | 150        | UNC 5/8 | 121        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        |  |
| 3    | 177        | UNC 5/8 | 152        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 175        |  |
| 4    | 216        | UNC 5/8 | 191        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        |  |
| *5   | 246        | UNC 3/4 | 216        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        |  |
| 6    | 273        | UNC 3/4 | 241        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        |  |
| 8    | 334        | UNC 3/4 | 298        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        |  |

| Inch | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|--|
| *2   | 40         |            |  |
| 2 ½  | 54         | 35         |  |
| 3    | 67         | 50         |  |
| 4    | 88         | 74         |  |
| *5   | 113        | 97         |  |
| 6    | 139        | 123        |  |
| 8    | 178        | 169        |  |

# Butterfly valves electric PVC-C ANSI

## Lugstyle butterfly valve type 142 PVC-C 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 142 202</b> | <b>199 142 222</b> |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 203</b> | <b>199 142 223</b> |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 204</b> | <b>199 142 224</b> |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 205</b> | <b>199 142 225</b> |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 142 206</b> | <b>199 142 226</b> |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 207</b> | <b>199 142 227</b> |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 208</b> | <b>199 142 228</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|
| *2   | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        |
| *5   | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        |

| Inch | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|--|
| *2   | 40         |            |  |
| 2 ½  | 54         | 35         |  |
| 3    | 67         | 50         |  |
| 4    | 88         | 74         |  |
| *5   | 113        | 97         |  |
| 6    | 139        | 123        |  |
| 8    | 178        | 169        |  |



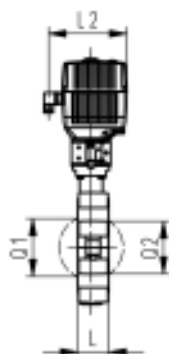
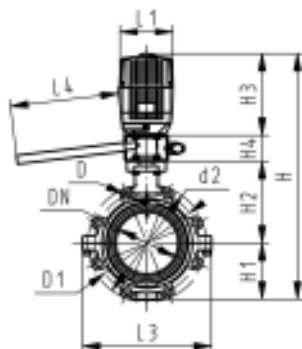
## Lugstyle butterfly valve type 142 PVC-C 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



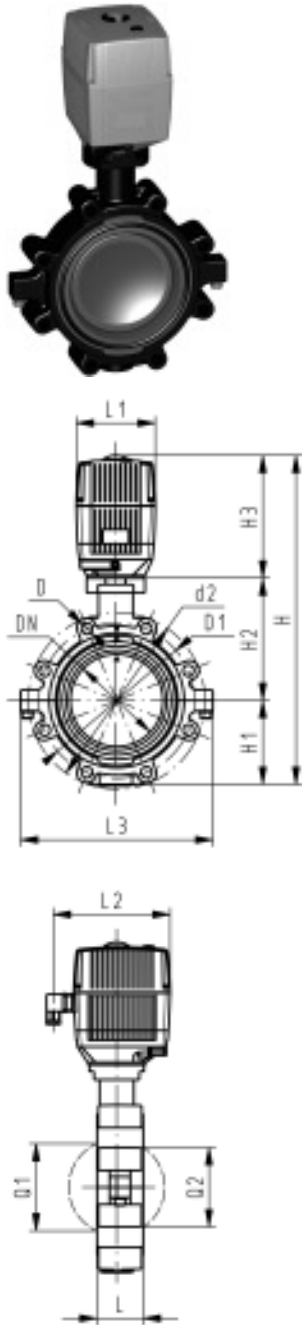
| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 142 162</b> | <b>199 142 182</b> |  |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 163</b> | <b>199 142 183</b> |  |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 164</b> | <b>199 142 184</b> |  |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 165</b> | <b>199 142 185</b> |  |  |  |  |  |  |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 142 166</b> | <b>199 142 186</b> |  |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 167</b> | <b>199 142 187</b> |  |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 168</b> | <b>199 142 188</b> |  |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |  |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| *2   | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        |  |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        |  |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        |  |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        |  |
| *5   | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        |  |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        |  |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        |  |

| Inch | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |
|------|------------|------------|------------|------------|--|--|--|--|--|--|--|--|--|
| *2   | 150        | 200        | 40         |            |  |  |  |  |  |  |  |  |  |
| 2 ½  | 160        | 200        | 54         | 35         |  |  |  |  |  |  |  |  |  |
| 3    | 175        | 200        | 67         | 50         |  |  |  |  |  |  |  |  |  |
| 4    | 244        | 250        | 88         | 74         |  |  |  |  |  |  |  |  |  |
| *5   | 272        | 250        | 113        | 97         |  |  |  |  |  |  |  |  |  |
| 6    | 297        | 250        | 139        | 123        |  |  |  |  |  |  |  |  |  |
| 8    | 360        | 250        | 178        | 169        |  |  |  |  |  |  |  |  |  |



## Lugstyle butterfly valve type 142 PVC-C 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 142 282</b> | <b>199 142 302</b> |  |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 283</b> | <b>199 142 303</b> |  |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 284</b> | <b>199 142 304</b> |  |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 285</b> | <b>199 142 305</b> |  |  |  |  |  |  |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 142 286</b> | <b>199 142 306</b> |  |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 287</b> | <b>199 142 307</b> |  |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 288</b> | <b>199 142 308</b> |  |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|
| *2   | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        |
| *5   | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        |

| Inch | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |
|------|------------|------------|--|--|--|--|--|--|--|--|--|--|
| *2   | 40         |            |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 54         | 35         |  |  |  |  |  |  |  |  |  |  |
| 3    | 67         | 50         |  |  |  |  |  |  |  |  |  |  |
| 4    | 88         | 74         |  |  |  |  |  |  |  |  |  |  |
| *5   | 113        | 97         |  |  |  |  |  |  |  |  |  |  |
| 6    | 139        | 123        |  |  |  |  |  |  |  |  |  |  |
| 8    | 178        | 169        |  |  |  |  |  |  |  |  |  |  |



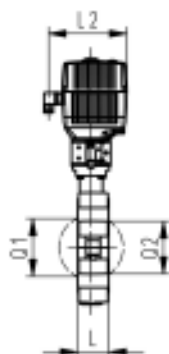
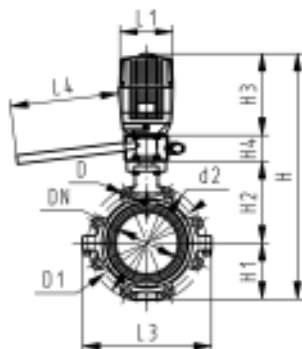
## Lugstyle butterfly valve type 142 PVC-C 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------|-------------|--|--|--|--|--|--|--|
| *2   | 50         | 63        | 10 | 1470                                       | 199 142 242  | 199 142 262 |  |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | 199 142 243  | 199 142 263 |  |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | 199 142 244  | 199 142 264 |  |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | 199 142 245  | 199 142 265 |  |  |  |  |  |  |  |
| *5   | 125        | 140       | 10 | 11500                                      | 199 142 246  | 199 142 266 |  |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | 199 142 247  | 199 142 267 |  |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | 199 142 248  | 199 142 268 |  |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |  |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| *2   | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        |  |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        |  |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        |  |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        |  |
| *5   | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        |  |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        |  |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        |  |

| Inch | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |
|------|------------|------------|------------|------------|--|--|--|--|--|--|--|--|--|
| *2   | 150        | 200        | 40         |            |  |  |  |  |  |  |  |  |  |
| 2 ½  | 160        | 200        | 54         | 35         |  |  |  |  |  |  |  |  |  |
| 3    | 175        | 200        | 67         | 50         |  |  |  |  |  |  |  |  |  |
| 4    | 244        | 250        | 88         | 74         |  |  |  |  |  |  |  |  |  |
| *5   | 272        | 250        | 113        | 97         |  |  |  |  |  |  |  |  |  |
| 6    | 297        | 250        | 139        | 123        |  |  |  |  |  |  |  |  |  |
| 8    | 360        | 250        | 178        | 169        |  |  |  |  |  |  |  |  |  |

# Butterfly valves pneumatic PVC-C ANSI

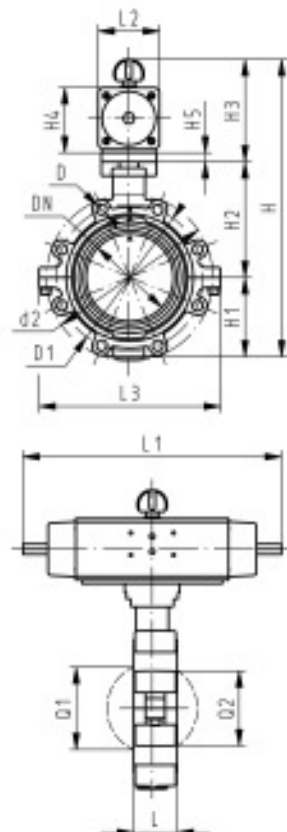
## Lugstyle butterfly valve type 242 PVC-C FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 242 162</b> | <b>199 242 182</b> |  |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 163</b> | <b>199 242 183</b> |  |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 164</b> | <b>199 242 184</b> |  |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 165</b> | <b>199 242 185</b> |  |  |  |  |  |  |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 242 166</b> | <b>199 242 186</b> |  |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 167</b> | <b>199 242 187</b> |  |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 168</b> | <b>199 242 188</b> |  |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|
| *2   | PA-30 FC              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        |
| 2 ½  | PA-30 FC              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        |
| 3    | PA-35 FC              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        |
| 4    | PA-40 FC              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        |
| *5   | PA-45 FC              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        |
| 6    | PA-50 FC              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        |
| 8    | PA-55 FC              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        |

| Inch | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|------------|------------|
| *2   | 65         | 150        | 40         |            |
| 2 ½  | 65         | 160        | 54         | 35         |
| 3    | 72         | 175        | 67         | 50         |
| 4    | 80         | 244        | 88         | 74         |
| *5   | 90         | 272        | 113        | 97         |
| 6    | 100        | 297        | 139        | 123        |
| 8    | 112        | 360        | 178        | 169        |





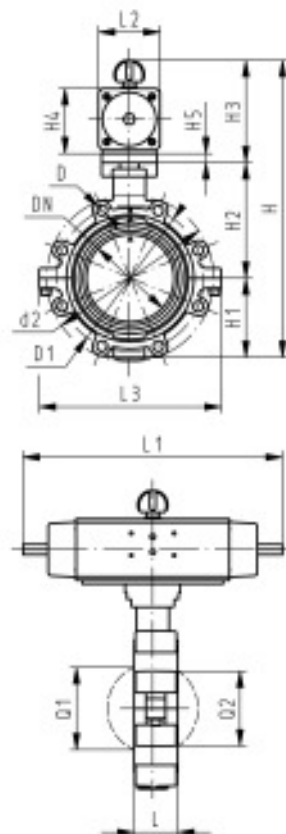
## Lugstyle butterfly valve type 242 PVC-C FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| Inch | DN<br>[mm]            | d<br>[mm]  | PN         | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |            |            |            |            |            |           |            |
|------|-----------------------|------------|------------|--------------------------------------------|--------------------|--------------------|------------|------------|------------|------------|------------|-----------|------------|
| *2   | 50                    | 63         | 10         | 1470                                       | <b>199 242 202</b> | <b>199 242 222</b> |            |            |            |            |            |           |            |
| 2 ½  | 65                    | 75         | 10         | 2200                                       | <b>199 242 203</b> | <b>199 242 223</b> |            |            |            |            |            |           |            |
| 3    | 80                    | 90         | 10         | 3000                                       | <b>199 242 204</b> | <b>199 242 224</b> |            |            |            |            |            |           |            |
| 4    | 100                   | 110        | 10         | 6500                                       | <b>199 242 205</b> | <b>199 242 225</b> |            |            |            |            |            |           |            |
| *5   | 125                   | 140        | 10         | 11500                                      | <b>199 242 206</b> | <b>199 242 226</b> |            |            |            |            |            |           |            |
| 6    | 150                   | 160        | 10         | 16600                                      | <b>199 242 207</b> | <b>199 242 227</b> |            |            |            |            |            |           |            |
| 8    | 200                   | 225        | 10         | 39600                                      | <b>199 242 208</b> | <b>199 242 228</b> |            |            |            |            |            |           |            |
| Inch | Actuator<br>unit type |            | D          | D1<br>[mm]                                 | d2<br>[mm]         | H<br>[mm]          | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] |
| *2   | PA-30 FO              |            | UNC 5/8    | 121                                        | 150                | 328                | 77         | 134        | 117        | 70         | 15         | 45        | 276        |
| 2 ½  | PA-30 FO              |            | UNC 5/8    | 140                                        | 170                | 340                | 83         | 140        | 117        | 70         | 15         | 46        | 276        |
| 3    | PA-35 FO              |            | UNC 5/8    | 153                                        | 177                | 361                | 89         | 146        | 126        | 78         | 15         | 49        | 326        |
| 4    | PA-40 FO              |            | UNC 5/8    | 191                                        | 216                | 400                | 104        | 167        | 129        | 86         |            | 56        | 370        |
| *5   | PA-45 FO              |            | UNC 3/4    | 216                                        | 246                | 437                | 117        | 181        | 139        | 96         |            | 64        | 411        |
| 6    | PA-50 FO              |            | UNC 3/4    | 242                                        | 273                | 468                | 130        | 189        | 149        | 106        |            | 72        | 423        |
| 8    | PA-55 FO              |            | UNC 3/4    | 299                                        | 334                | 529                | 158        | 210        | 161        | 118        |            | 73        | 452        |
| Inch | L2<br>[mm]            | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm]                                 |                    |                    |            |            |            |            |            |           |            |
| *2   | 65                    | 150        | 40         |                                            |                    |                    |            |            |            |            |            |           |            |
| 2 ½  | 65                    | 160        | 54         | 35                                         |                    |                    |            |            |            |            |            |           |            |
| 3    | 72                    | 175        | 67         | 50                                         |                    |                    |            |            |            |            |            |           |            |
| 4    | 80                    | 244        | 88         | 74                                         |                    |                    |            |            |            |            |            |           |            |
| *5   | 90                    | 272        | 113        | 97                                         |                    |                    |            |            |            |            |            |           |            |
| 6    | 100                   | 297        | 139        | 123                                        |                    |                    |            |            |            |            |            |           |            |
| 8    | 112                   | 360        | 178        | 169                                        |                    |                    |            |            |            |            |            |           |            |



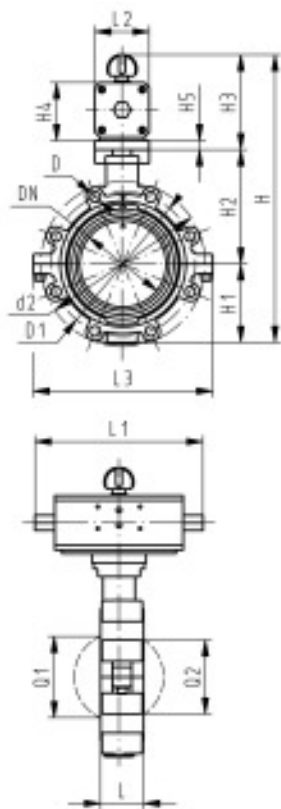
## Lugstyle butterfly valve type 242 PVC-C DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 242 242</b> | <b>199 242 262</b> |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 243</b> | <b>199 242 263</b> |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 244</b> | <b>199 242 264</b> |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 245</b> | <b>199 242 265</b> |  |  |  |  |  |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 242 246</b> | <b>199 242 266</b> |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 247</b> | <b>199 242 267</b> |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 248</b> | <b>199 242 268</b> |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|
| *2   | PA-35 DA              | UNC 5/8 | 121        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        |
| 2 ½  | PA-35 DA              | UNC 5/8 | 140        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        |
| 3    | PA-40 DA              | UNC 5/8 | 153        | 177        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        |
| 4    | PA-45 DA              | UNC 5/8 | 191        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        |
| *5   | PA-45 DA              | UNC 3/4 | 216        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        |
| 6    | PA-55 DA              | UNC 3/4 | 242        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        |
| 8    | PA-55 DA              | UNC 3/4 | 299        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        |

| Inch | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|------------|------------|
| *2   | 55         | 150        | 40         |            |
| 2 ½  | 55         | 160        | 54         | 35         |
| 3    | 60         | 175        | 67         | 50         |
| 4    | 65         | 244        | 88         | 74         |
| *5   | 72         | 272        | 113        | 97         |
| 6    | 80         | 297        | 139        | 123        |
| 8    | 90         | 360        | 178        | 169        |

# Butterfly valves ABS ANSI

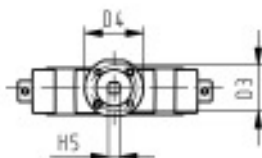
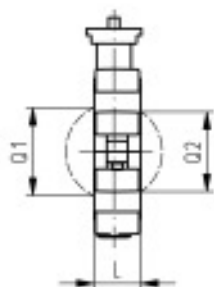
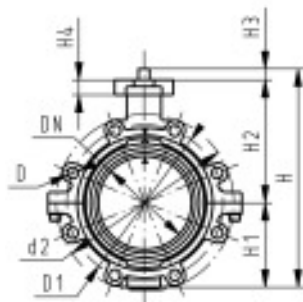
## Lugstyle butterfly valve type 568 ABS Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

\* Available on request



| Inch   | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |  |
|--------|-----------|------------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| *2     | 63        | 50         | 10 | 1470                                       | <b>169 568 902</b> |  |  |  |  |  |  |  |  |  |
| *2 1/2 | 75        | 65         | 10 | 2200                                       | <b>169 568 903</b> |  |  |  |  |  |  |  |  |  |
| 3      | 90        | 80         | 10 | 3000                                       | <b>169 568 904</b> |  |  |  |  |  |  |  |  |  |
| 4      | 110       | 100        | 10 | 6500                                       | <b>169 568 905</b> |  |  |  |  |  |  |  |  |  |
| *5     | 140       | 125        | 10 | 11500                                      | <b>169 568 906</b> |  |  |  |  |  |  |  |  |  |
| 6      | 160       | 150        | 10 | 16600                                      | <b>169 568 907</b> |  |  |  |  |  |  |  |  |  |
| 8      | 225       | 200        | 10 | 39600                                      | <b>169 568 908</b> |  |  |  |  |  |  |  |  |  |

| Inch   | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|--------|------------|---------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|--|
| *2     | 150        | UNC 5/8 | 121        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |  |
| *2 1/2 | 170        | UNC 5/8 | 138        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |  |
| 3      | 177        | UNC 5/8 | 152        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |  |
| 4      | 216        | UNC 5/8 | 191        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |  |
| *5     | 246        | UNC 3/4 | 216        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |  |
| 6      | 273        | UNC 3/4 | 241        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |  |
| 8      | 334        | UNC 3/4 | 298        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |  |



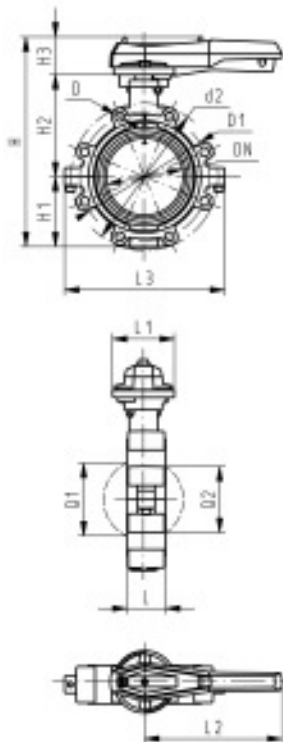
## Lugstyle butterfly valve type 568 ABS Hand lever with ratchet settings



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

\* Available on request



| Inch   | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |  |
|--------|-----------|------------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| *2     | 63        | 50         | 10 | 1470                                       | <b>169 568 102</b> |  |  |  |  |  |  |  |  |  |
| *2 1/2 | 75        | 65         | 10 | 2200                                       | <b>169 568 103</b> |  |  |  |  |  |  |  |  |  |
| 3      | 90        | 80         | 10 | 3000                                       | <b>169 568 104</b> |  |  |  |  |  |  |  |  |  |
| 4      | 110       | 100        | 10 | 6500                                       | <b>169 568 105</b> |  |  |  |  |  |  |  |  |  |
| *5     | 140       | 125        | 10 | 11500                                      | <b>169 568 106</b> |  |  |  |  |  |  |  |  |  |
| 6      | 160       | 150        | 10 | 16600                                      | <b>169 568 107</b> |  |  |  |  |  |  |  |  |  |
| 8      | 225       | 200        | 10 | 39600                                      | <b>169 568 108</b> |  |  |  |  |  |  |  |  |  |

| Inch   | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|--------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| *2     | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |
| *2 1/2 | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |
| 3      | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |
| 4      | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |
| *5     | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |
| 6      | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |
| 8      | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |



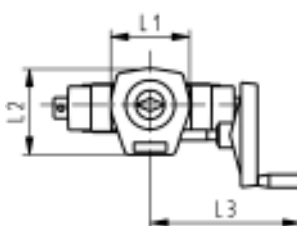
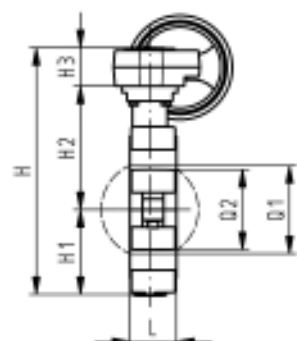
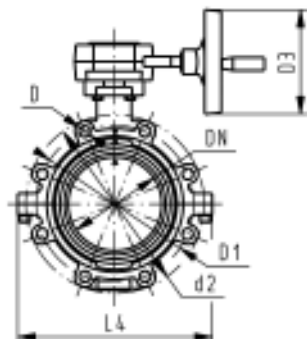
## Lugstyle butterfly valve type 568 ABS Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

\* Available on request



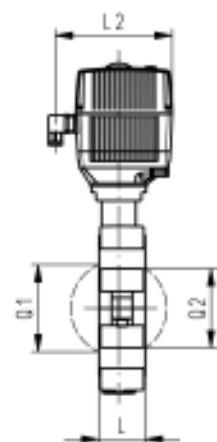
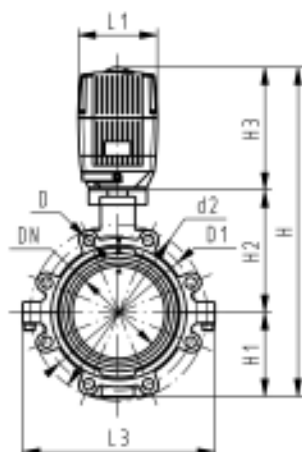
| Inch   | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |
|--------|-----------|------------|----|--------------------------------------------|--------------------|
| *2     | 63        | 50         | 10 | 1470                                       | <b>169 568 122</b> |
| *2 1/2 | 75        | 65         | 10 | 2200                                       | <b>169 568 123</b> |
| 3      | 90        | 80         | 10 | 3000                                       | <b>169 568 124</b> |
| 4      | 110       | 100        | 10 | 6500                                       | <b>169 568 125</b> |
| *5     | 140       | 125        | 10 | 11500                                      | <b>169 568 126</b> |
| 6      | 160       | 150        | 10 | 16600                                      | <b>169 568 127</b> |
| 8      | 225       | 200        | 10 | 39600                                      | <b>169 568 128</b> |

| Inch   | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
|--------|------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| *2     | 150        | UNC 5/8 | 121        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        |
| *2 1/2 | 170        | UNC 5/8 | 138        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        |
| 3      | 177        | UNC 5/8 | 152        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 175        |
| 4      | 216        | UNC 5/8 | 191        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        |
| *5     | 246        | UNC 3/4 | 216        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        |
| 6      | 273        | UNC 3/4 | 241        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        |
| 8      | 334        | UNC 3/4 | 298        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        |

| Inch   | Q1<br>[mm] | Q2<br>[mm] |
|--------|------------|------------|
| *2     | 40         |            |
| *2 1/2 | 54         | 35         |
| 3      | 67         | 50         |
| 4      | 88         | 74         |
| *5     | 113        | 97         |
| 6      | 139        | 123        |
| 8      | 178        | 169        |

# Butterfly valves electric ABS ANSI

## Lugstyle butterfly valve type 142 ABS 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |
|------|------------|-----------|----|--------------------------------------------|--------------------|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 142 502</b> |
| *2 ½ | 65         | 75        | 10 | 2200                                       | <b>199 142 503</b> |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 504</b> |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 505</b> |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 142 506</b> |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 507</b> |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 508</b> |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|
| *2   | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        |
| *2 ½ | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        |
| *5   | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        |

| Inch | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|
| *2   | 40         |            |
| *2 ½ | 54         | 35         |
| 3    | 67         | 50         |
| 4    | 88         | 74         |
| *5   | 113        | 97         |
| 6    | 139        | 123        |
| 8    | 178        | 169        |



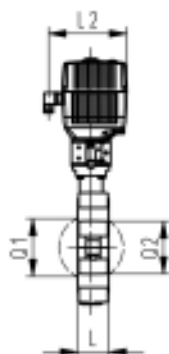
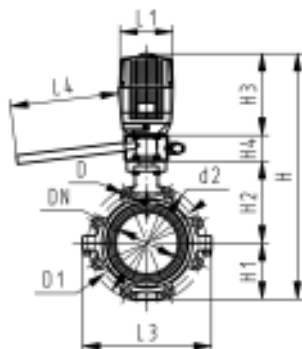
## Lugstyle butterfly valve type 142 ABS 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| Inch   | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |
|--------|------------|-----------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|
| *2     | 50         | 63        | 10 | 1470                                       | <b>199 142 482</b> |  |  |  |  |  |  |  |  |
| *2 1/2 | 65         | 75        | 10 | 2200                                       | <b>199 142 483</b> |  |  |  |  |  |  |  |  |
| 3      | 80         | 90        | 10 | 3000                                       | <b>199 142 484</b> |  |  |  |  |  |  |  |  |
| 4      | 100        | 110       | 10 | 6500                                       | <b>199 142 485</b> |  |  |  |  |  |  |  |  |
| *5     | 125        | 140       | 10 | 11500                                      | <b>199 142 486</b> |  |  |  |  |  |  |  |  |
| 6      | 150        | 160       | 10 | 16600                                      | <b>199 142 487</b> |  |  |  |  |  |  |  |  |
| 8      | 200        | 225       | 10 | 39600                                      | <b>199 142 488</b> |  |  |  |  |  |  |  |  |

| Inch   | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|--------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| *2     | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        |
| *2 1/2 | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        |
| 3      | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        |
| 4      | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        |
| *5     | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        |
| 6      | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        |
| 8      | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        |

| Inch   | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |
|--------|------------|------------|------------|------------|--|--|--|--|--|--|--|--|--|
| *2     | 150        | 200        | 40         |            |  |  |  |  |  |  |  |  |  |
| *2 1/2 | 160        | 200        | 54         | 35         |  |  |  |  |  |  |  |  |  |
| 3      | 175        | 200        | 67         | 50         |  |  |  |  |  |  |  |  |  |
| 4      | 244        | 250        | 88         | 74         |  |  |  |  |  |  |  |  |  |
| *5     | 272        | 250        | 113        | 97         |  |  |  |  |  |  |  |  |  |
| 6      | 297        | 250        | 139        | 123        |  |  |  |  |  |  |  |  |  |
| 8      | 360        | 250        | 178        | 169        |  |  |  |  |  |  |  |  |  |





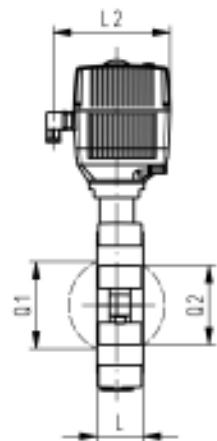
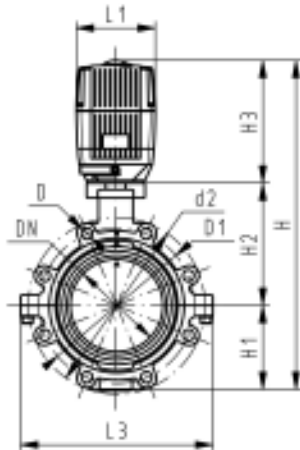
## Lugstyle butterfly valve type 142 ABS 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 142 542</b> |  |
| *2 ½ | 65         | 75        | 10 | 2200                                       | <b>199 142 543</b> |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 544</b> |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 545</b> |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 142 546</b> |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 547</b> |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 548</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|
| *2   | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        |
| *2 ½ | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        |
| *5   | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        |

| Inch | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|--|
| *2   | 40         |            |  |
| *2 ½ | 54         | 35         |  |
| 3    | 67         | 50         |  |
| 4    | 88         | 74         |  |
| *5   | 113        | 97         |  |
| 6    | 139        | 123        |  |
| 8    | 178        | 169        |  |



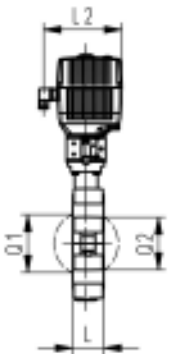
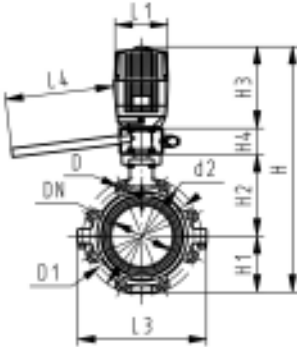
## Lugstyle butterfly valve type 142 ABS 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

\* Available on request



| Inch   | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |  |  |  |  |  |  |  |
|--------|------------|-----------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|
| *2     | 50         | 63        | 10 | 1470                                       | <b>199 142 522</b> |  |  |  |  |  |  |  |  |
| *2 1/2 | 65         | 75        | 10 | 2200                                       | <b>199 142 523</b> |  |  |  |  |  |  |  |  |
| 3      | 80         | 90        | 10 | 3000                                       | <b>199 142 524</b> |  |  |  |  |  |  |  |  |
| 4      | 100        | 110       | 10 | 6500                                       | <b>199 142 525</b> |  |  |  |  |  |  |  |  |
| *5     | 125        | 140       | 10 | 11500                                      | <b>199 142 526</b> |  |  |  |  |  |  |  |  |
| 6      | 150        | 160       | 10 | 16600                                      | <b>199 142 527</b> |  |  |  |  |  |  |  |  |
| 8      | 200        | 225       | 10 | 39600                                      | <b>199 142 528</b> |  |  |  |  |  |  |  |  |

| Inch   | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|--------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| *2     | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        |
| *2 1/2 | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        |
| 3      | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        |
| 4      | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        |
| *5     | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        |
| 6      | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        |
| 8      | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        |

| Inch   | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|--------|------------|------------|------------|------------|
| *2     | 150        | 200        | 40         |            |
| *2 1/2 | 160        | 200        | 54         | 35         |
| 3      | 175        | 200        | 67         | 50         |
| 4      | 244        | 250        | 88         | 74         |
| *5     | 272        | 250        | 113        | 97         |
| 6      | 297        | 250        | 139        | 123        |
| 8      | 360        | 250        | 178        | 169        |

# Butterfly valves pneumatic ABS ANSI

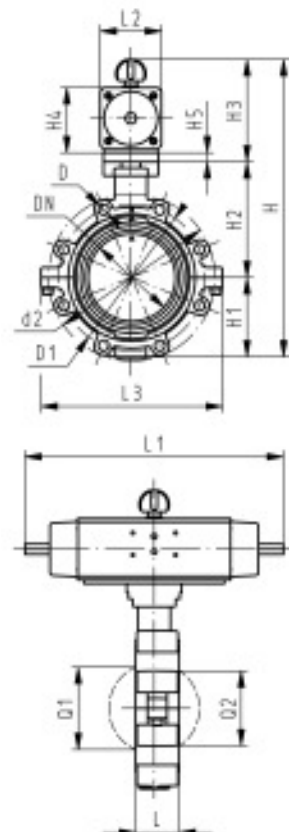
## Lugstyle butterfly valve type 242 ABS FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| Inch | DN<br>[mm]            | d<br>[mm]  | PN         | kv-value<br>(Δp=1 bar)<br>[l/min] | EPDM<br>Code       |           |            |            |            |            |            |           |            |
|------|-----------------------|------------|------------|-----------------------------------|--------------------|-----------|------------|------------|------------|------------|------------|-----------|------------|
| *2   | 50                    | 63         | 10         | 1470                              | <b>199 242 402</b> |           |            |            |            |            |            |           |            |
| *2 ½ | 65                    | 75         | 10         | 2200                              | <b>199 242 403</b> |           |            |            |            |            |            |           |            |
| 3    | 80                    | 90         | 10         | 3000                              | <b>199 242 404</b> |           |            |            |            |            |            |           |            |
| 4    | 100                   | 110        | 10         | 6500                              | <b>199 242 405</b> |           |            |            |            |            |            |           |            |
| *5   | 125                   | 140        | 10         | 11500                             | <b>199 242 406</b> |           |            |            |            |            |            |           |            |
| 6    | 150                   | 160        | 10         | 16600                             | <b>199 242 407</b> |           |            |            |            |            |            |           |            |
| 8    | 200                   | 225        | 10         | 39600                             | <b>199 242 408</b> |           |            |            |            |            |            |           |            |
| Inch | Actuator<br>unit type |            | D          | D1<br>[mm]                        | d2<br>[mm]         | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] |
| *2   | PA-30 FC              |            | UNC 5/8    | 121                               | 150                | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        |
| *2 ½ | PA-30 FC              |            | UNC 5/8    | 140                               | 170                | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        |
| 3    | PA-35 FC              |            | UNC 5/8    | 153                               | 177                | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        |
| 4    | PA-40 FC              |            | UNC 5/8    | 191                               | 216                | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        |
| *5   | PA-45 FC              |            | UNC 3/4    | 216                               | 246                | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        |
| 6    | PA-50 FC              |            | UNC 3/4    | 242                               | 273                | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        |
| 8    | PA-55 FC              |            | UNC 3/4    | 299                               | 334                | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        |
| Inch | L2<br>[mm]            | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm]                        |                    |           |            |            |            |            |            |           |            |
| *2   | 65                    | 150        | 40         |                                   |                    |           |            |            |            |            |            |           |            |
| *2 ½ | 65                    | 160        | 54         | 35                                |                    |           |            |            |            |            |            |           |            |
| 3    | 72                    | 175        | 67         | 50                                |                    |           |            |            |            |            |            |           |            |
| 4    | 80                    | 244        | 88         | 74                                |                    |           |            |            |            |            |            |           |            |
| *5   | 90                    | 272        | 113        | 97                                |                    |           |            |            |            |            |            |           |            |
| 6    | 100                   | 297        | 139        | 123                               |                    |           |            |            |            |            |            |           |            |
| 8    | 112                   | 360        | 178        | 169                               |                    |           |            |            |            |            |            |           |            |



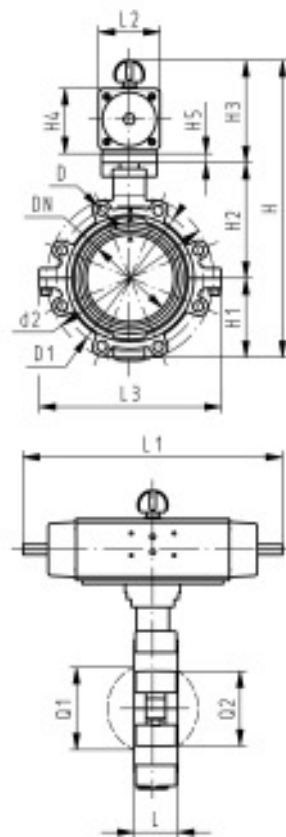
## Lugstyle butterfly valve type 242 ABS FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

\* Available on request



| Inch   | DN<br>[mm]            | d<br>[mm]  | PN         | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |           |            |            |            |            |            |           |            |
|--------|-----------------------|------------|------------|--------------------------------------------|--------------------|-----------|------------|------------|------------|------------|------------|-----------|------------|
| *2     | 50                    | 63         | 10         | 1470                                       | <b>199 242 422</b> |           |            |            |            |            |            |           |            |
| *2 1/2 | 65                    | 75         | 10         | 2200                                       | <b>199 242 423</b> |           |            |            |            |            |            |           |            |
| 3      | 80                    | 90         | 10         | 3000                                       | <b>199 242 424</b> |           |            |            |            |            |            |           |            |
| 4      | 100                   | 110        | 10         | 6500                                       | <b>199 242 425</b> |           |            |            |            |            |            |           |            |
| *5     | 125                   | 140        | 10         | 11500                                      | <b>199 242 426</b> |           |            |            |            |            |            |           |            |
| 6      | 150                   | 160        | 10         | 16600                                      | <b>199 242 427</b> |           |            |            |            |            |            |           |            |
| 8      | 200                   | 225        | 10         | 39600                                      | <b>199 242 428</b> |           |            |            |            |            |            |           |            |
| Inch   | Actuator<br>unit type |            | D          | D1<br>[mm]                                 | d2<br>[mm]         | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] |
| *2     | PA-30 FO              |            | UNC 5/8    | 121                                        | 150                | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        |
| *2 1/2 | PA-30 FO              |            | UNC 5/8    | 140                                        | 170                | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        |
| 3      | PA-35 FO              |            | UNC 5/8    | 153                                        | 177                | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        |
| 4      | PA-40 FO              |            | UNC 5/8    | 191                                        | 216                | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        |
| *5     | PA-45 FO              |            | UNC 3/4    | 216                                        | 246                | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        |
| 6      | PA-50 FO              |            | UNC 3/4    | 242                                        | 273                | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        |
| 8      | PA-55 FO              |            | UNC 3/4    | 299                                        | 334                | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        |
| Inch   | L2<br>[mm]            | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm]                                 |                    |           |            |            |            |            |            |           |            |
| *2     | 65                    | 150        | 40         |                                            |                    |           |            |            |            |            |            |           |            |
| *2 1/2 | 65                    | 160        | 54         | 35                                         |                    |           |            |            |            |            |            |           |            |
| 3      | 72                    | 175        | 67         | 50                                         |                    |           |            |            |            |            |            |           |            |
| 4      | 80                    | 244        | 88         | 74                                         |                    |           |            |            |            |            |            |           |            |
| *5     | 90                    | 272        | 113        | 97                                         |                    |           |            |            |            |            |            |           |            |
| 6      | 100                   | 297        | 139        | 123                                        |                    |           |            |            |            |            |            |           |            |
| 8      | 112                   | 360        | 178        | 169                                        |                    |           |            |            |            |            |            |           |            |



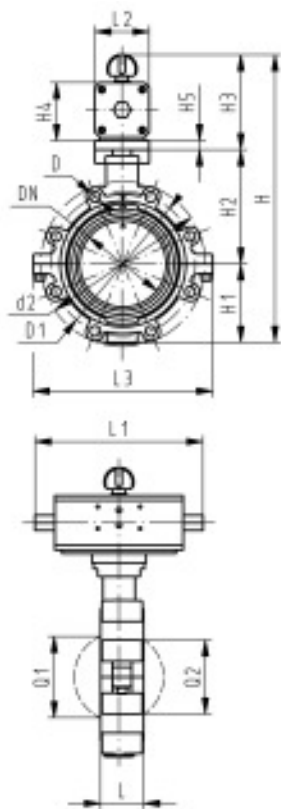
## Lugstyle butterfly valve type 242 ABS DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

\* Available on request



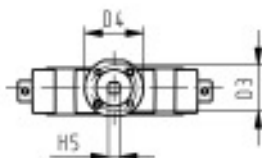
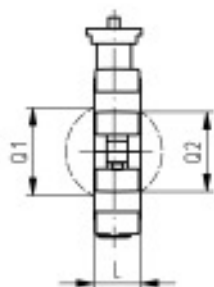
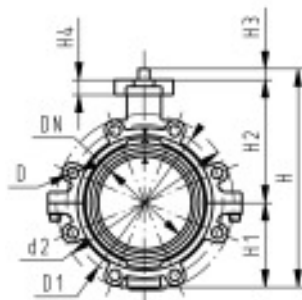
| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--|
| *2   | 50         | 63        | 10 | 1470                                       | <b>199 242 442</b> |  |
| *2 ½ | 65         | 75        | 10 | 2200                                       | <b>199 242 443</b> |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 444</b> |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 445</b> |  |
| *5   | 125        | 140       | 10 | 11500                                      | <b>199 242 446</b> |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 447</b> |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 448</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|
| *2   | PA-35 DA              | UNC 5/8 | 121        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        |
| *2 ½ | PA-35 DA              | UNC 5/8 | 140        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        |
| 3    | PA-40 DA              | UNC 5/8 | 153        | 177        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        |
| 4    | PA-45 DA              | UNC 5/8 | 191        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        |
| *5   | PA-45 DA              | UNC 3/4 | 216        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        |
| 6    | PA-55 DA              | UNC 3/4 | 242        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        |
| 8    | PA-55 DA              | UNC 3/4 | 299        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        |

| Inch | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|------------|--|
| *2   | 55         | 150        | 40         |            |  |
| *2 ½ | 55         | 160        | 54         | 35         |  |
| 3    | 60         | 175        | 67         | 50         |  |
| 4    | 65         | 244        | 88         | 74         |  |
| *5   | 72         | 272        | 113        | 97         |  |
| 6    | 80         | 297        | 139        | 123        |  |
| 8    | 90         | 360        | 178        | 169        |  |

# Butterfly valves PP-H ANSI

## Lugstyle butterfly valve type 568 PP-H Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|
| 2    | 63        | 50         | 10 | 1470                                       | <b>167 568 902</b> | <b>167 568 922</b> |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>167 568 903</b> | <b>167 568 923</b> |
| 3    | 90        | 80         | 10 | 3000                                       | <b>167 568 904</b> | <b>167 568 924</b> |
| 4    | 110       | 100        | 10 | 6500                                       | <b>167 568 905</b> | <b>167 568 925</b> |
| 5    | 140       | 125        | 10 | 11500                                      | <b>167 568 906</b> | <b>167 568 926</b> |
| 6    | 160       | 150        | 10 | 16600                                      | <b>167 568 907</b> | <b>167 568 927</b> |
| 8    | 225       | 200        | 10 | 39600                                      | <b>167 568 908</b> | <b>167 568 928</b> |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|---------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | 150        | UNC 5/8 | 121        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |
| 2 ½  | 170        | UNC 5/8 | 138        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |
| 3    | 177        | UNC 5/8 | 152        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |
| 4    | 216        | UNC 5/8 | 191        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |
| 5    | 246        | UNC 3/4 | 216        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |
| 6    | 273        | UNC 3/4 | 241        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |
| 8    | 334        | UNC 3/4 | 298        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |

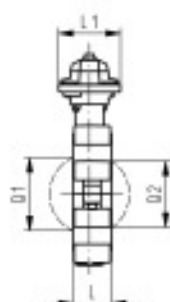
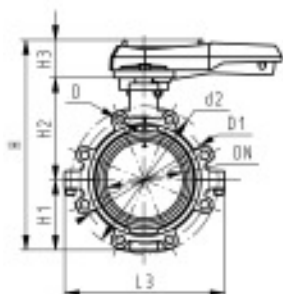


## Lugstyle butterfly valve type 568 PP-H Hand lever with ratchet settings



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752



| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 63        | 50         | 10 | 1470                                       | <b>167 568 102</b> | <b>167 568 122</b> |  |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>167 568 103</b> | <b>167 568 123</b> |  |
| 3    | 90        | 80         | 10 | 3000                                       | <b>167 568 104</b> | <b>167 568 124</b> |  |
| 4    | 110       | 100        | 10 | 6500                                       | <b>167 568 105</b> | <b>167 568 125</b> |  |
| 5    | 140       | 125        | 10 | 11500                                      | <b>167 568 106</b> | <b>167 568 126</b> |  |
| 6    | 160       | 150        | 10 | 16600                                      | <b>167 568 107</b> | <b>167 568 127</b> |  |
| 8    | 225       | 200        | 10 | 39600                                      | <b>167 568 108</b> | <b>167 568 128</b> |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 2    | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 3    | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |  |
| 4    | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 5    | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 6    | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 8    | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |



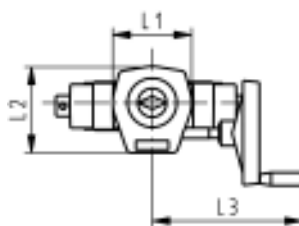
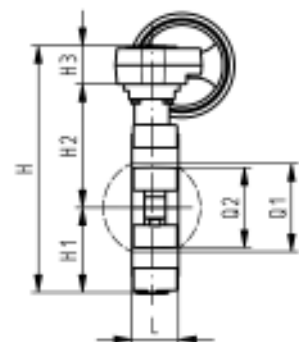
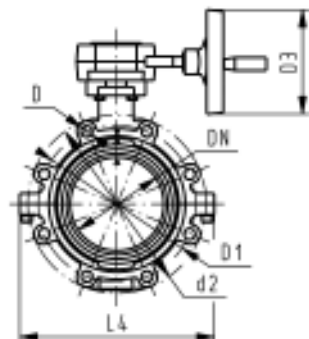


## Lugstyle butterfly valve type 568 PP-H Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752



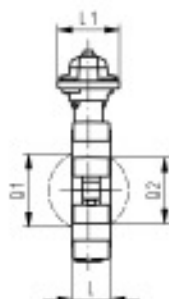
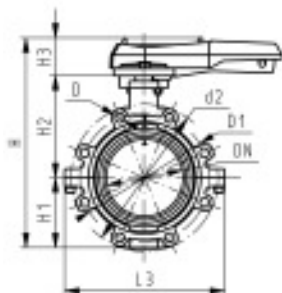
| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 63        | 50         | 10 | 1470                                       | <b>167 568 142</b> | <b>167 568 162</b> |  |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>167 568 143</b> | <b>167 568 163</b> |  |
| 3    | 90        | 80         | 10 | 3000                                       | <b>167 568 144</b> | <b>167 568 164</b> |  |
| 4    | 110       | 100        | 10 | 6500                                       | <b>167 568 145</b> | <b>167 568 165</b> |  |
| 5    | 140       | 125        | 10 | 11500                                      | <b>167 568 146</b> | <b>167 568 166</b> |  |
| 6    | 160       | 150        | 10 | 16600                                      | <b>167 568 147</b> | <b>167 568 167</b> |  |
| 8    | 225       | 200        | 10 | 39600                                      | <b>167 568 148</b> | <b>167 568 168</b> |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] |  |
|------|------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 2    | 150        | UNC 5/8 | 121        | 160        | 279       | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 160        | 291       | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         |  |
| 3    | 177        | UNC 5/8 | 152        | 160        | 303       | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 175        | 67         |  |
| 4    | 216        | UNC 5/8 | 191        | 160        | 339       | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         |  |
| 5    | 246        | UNC 3/4 | 216        | 160        | 366       | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        |  |
| 6    | 273        | UNC 3/4 | 241        | 160        | 387       | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        |  |
| 8    | 334        | UNC 3/4 | 298        | 160        | 436       | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        |  |

| Inch | Q2<br>[mm] |  |
|------|------------|--|
| 2    |            |  |
| 2 ½  | 35         |  |
| 3    | 50         |  |
| 4    | 74         |  |
| 5    | 97         |  |
| 6    | 123        |  |
| 8    | 169        |  |

# Butterfly valves PROGEF® SF ANSI

## PROGEF® PLUS silicone free Lugstyle butterfly valve 568 PP-H SF ANSI Hand lever with ratchet settings



### Model:

- Silicon-free / paint-compatible
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

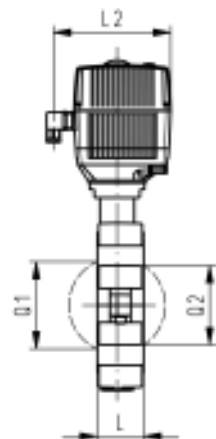
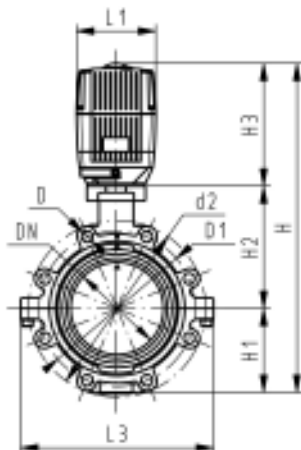
| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |
|------|-----------|------------|----|--------------------------------------------|--------------------|--------------------|
| 2    | 63        | 50         | 10 | 1470                                       | <b>167 568 502</b> | <b>167 568 522</b> |
| 2 ½  | 75        | 65         | 10 | 2200                                       | <b>167 568 503</b> | <b>167 568 523</b> |
| 3    | 90        | 80         | 10 | 3000                                       | <b>167 568 504</b> | <b>167 568 524</b> |
| 4    | 110       | 100        | 10 | 6500                                       | <b>167 568 505</b> | <b>167 568 525</b> |
| 5    | 140       | 125        | 10 | 11500                                      | <b>167 568 506</b> | <b>167 568 526</b> |
| 6    | 160       | 150        | 10 | 16600                                      | <b>167 568 507</b> | <b>167 568 527</b> |
| 8    | 225       | 200        | 10 | 39600                                      | <b>167 568 508</b> | <b>167 568 528</b> |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|
| 2    | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |
| 2 ½  | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |
| 3    | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |
| 4    | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |
| 5    | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |
| 6    | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |
| 8    | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |

# Butterfly valves electric PP-H ANSI

## Lugstyle butterfly valve type 142 PP-H 100-230V

### Without manual override



#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|------|------------|-----------|----|--------------------------------------------|--------------|-------------|--|
| 2    | 50         | 63        | 10 | 1470                                       | 199 142 362  | 199 142 382 |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | 199 142 363  | 199 142 383 |  |
| 3    | 80         | 90        | 10 | 3000                                       | 199 142 364  | 199 142 384 |  |
| 4    | 100        | 110       | 10 | 6500                                       | 199 142 365  | 199 142 385 |  |
| 5    | 125        | 140       | 10 | 11500                                      | 199 142 366  | 199 142 386 |  |
| 6    | 150        | 160       | 10 | 16600                                      | 199 142 367  | 199 142 387 |  |
| 8    | 200        | 225       | 10 | 39600                                      | 199 142 368  | 199 142 388 |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        | 67         |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| Inch | Q2<br>[mm] |  |
|------|------------|--|
| 2    |            |  |
| 2 ½  | 35         |  |
| 3    | 50         |  |
| 4    | 74         |  |
| 5    | 97         |  |
| 6    | 123        |  |
| 8    | 169        |  |

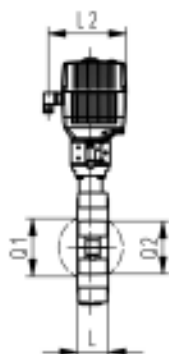
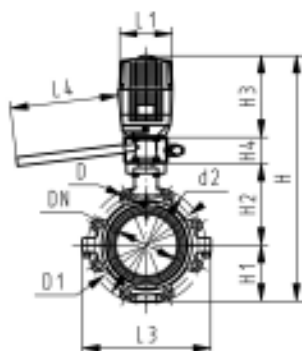


## Lugstyle butterfly valve type 142 PP-H 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 142 322</b> | <b>199 142 342</b> |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 323</b> | <b>199 142 343</b> |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 324</b> | <b>199 142 344</b> |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 325</b> | <b>199 142 345</b> |  |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 142 326</b> | <b>199 142 346</b> |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 327</b> | <b>199 142 347</b> |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 328</b> | <b>199 142 348</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| Inch | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 200        | 40         |            |  |
| 2 ½  | 200        | 54         | 35         |  |
| 3    | 200        | 67         | 50         |  |
| 4    | 250        | 88         | 74         |  |
| 5    | 250        | 113        | 97         |  |
| 6    | 250        | 139        | 123        |  |
| 8    | 250        | 178        | 169        |  |

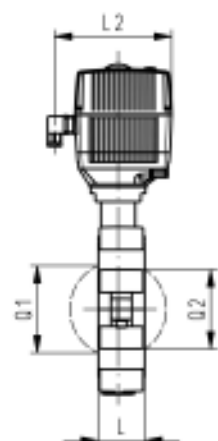
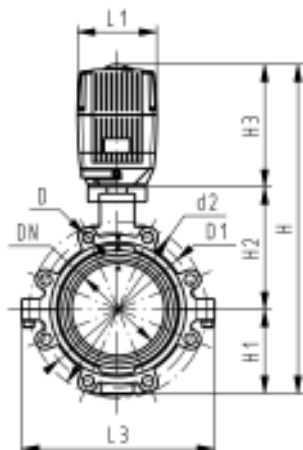


## Lugstyle butterfly valve type 142 PP-H 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |
|------|------------|-----------|----|--------------------------------------------|--------------|-------------|
| 2    | 50         | 63        | 10 | 1470                                       | 199 142 442  | 199 142 462 |
| 2 ½  | 65         | 75        | 10 | 2200                                       | 199 142 443  | 199 142 463 |
| 3    | 80         | 90        | 10 | 3000                                       | 199 142 444  | 199 142 464 |
| 4    | 100        | 110       | 10 | 6500                                       | 199 142 445  | 199 142 465 |
| 5    | 125        | 140       | 10 | 11500                                      | 199 142 446  | 199 142 466 |
| 6    | 150        | 160       | 10 | 16600                                      | 199 142 447  | 199 142 467 |
| 8    | 200        | 225       | 10 | 39600                                      | 199 142 448  | 199 142 468 |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        | 67         |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| Inch | Q2<br>[mm] |
|------|------------|
| 2    |            |
| 2 ½  | 35         |
| 3    | 50         |
| 4    | 74         |
| 5    | 97         |
| 6    | 123        |
| 8    | 169        |

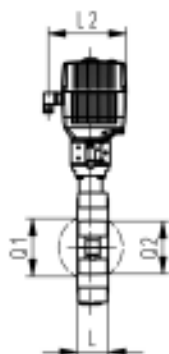
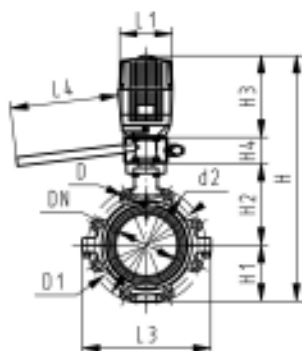


## Lugstyle butterfly valve type 142 PP-H 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



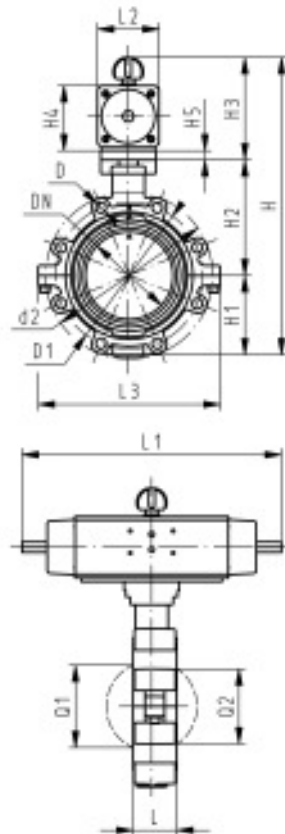
| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |  |
|------|------------|-----------|----|--------------------------------------------|--------------|-------------|--|
| 2    | 50         | 63        | 10 | 1470                                       | 199 142 402  | 199 142 422 |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | 199 142 403  | 199 142 423 |  |
| 3    | 80         | 90        | 10 | 3000                                       | 199 142 404  | 199 142 424 |  |
| 4    | 100        | 110       | 10 | 6500                                       | 199 142 405  | 199 142 425 |  |
| 5    | 125        | 140       | 10 | 11500                                      | 199 142 406  | 199 142 426 |  |
| 6    | 150        | 160       | 10 | 16600                                      | 199 142 407  | 199 142 427 |  |
| 8    | 200        | 225       | 10 | 39600                                      | 199 142 408  | 199 142 428 |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| Inch | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 200        | 40         |            |  |
| 2 ½  | 200        | 54         | 35         |  |
| 3    | 200        | 67         | 50         |  |
| 4    | 250        | 88         | 74         |  |
| 5    | 250        | 113        | 97         |  |
| 6    | 250        | 139        | 123        |  |
| 8    | 250        | 178        | 169        |  |

# Butterfly valves pneumatic PP-H ANSI

## Lugstyle butterfly valve type 242 PP-H FC (Fail safe to close) Without manual override



### Model:

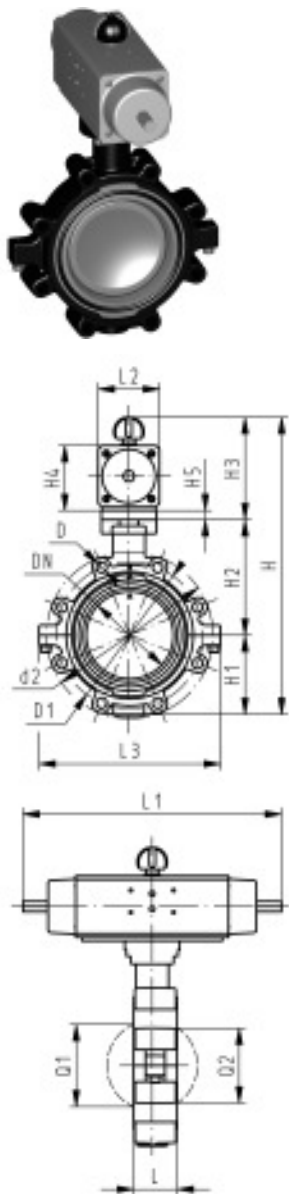
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code | FPM<br>Code |
|------|------------|-----------|----|--------------------------------------------|--------------|-------------|
| 2    | 50         | 63        | 10 | 1470                                       | 199 242 282  | 199 242 302 |
| 2 ½  | 65         | 75        | 10 | 2200                                       | 199 242 283  | 199 242 303 |
| 3    | 80         | 90        | 10 | 3000                                       | 199 242 284  | 199 242 304 |
| 4    | 100        | 110       | 10 | 6500                                       | 199 242 285  | 199 242 305 |
| 5    | 125        | 140       | 10 | 11500                                      | 199 242 286  | 199 242 306 |
| 6    | 150        | 160       | 10 | 16600                                      | 199 242 287  | 199 242 307 |
| 8    | 200        | 225       | 10 | 39600                                      | 199 242 288  | 199 242 308 |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-30 FC              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 2 ½  | PA-30 FC              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 3    | PA-35 FC              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 4    | PA-40 FC              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| 5    | PA-45 FC              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 6    | PA-50 FC              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 8    | PA-55 FC              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|------------|
| 2    | 150        | 40         |            |
| 2 ½  | 160        | 54         | 35         |
| 3    | 175        | 67         | 50         |
| 4    | 244        | 88         | 74         |
| 5    | 272        | 113        | 97         |
| 6    | 297        | 139        | 123        |
| 8    | 360        | 178        | 169        |





## Lugstyle butterfly valve type 242 PP-H FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 242 322</b> | <b>199 242 342</b> |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 323</b> | <b>199 242 343</b> |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 324</b> | <b>199 242 344</b> |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 325</b> | <b>199 242 345</b> |  |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 242 326</b> | <b>199 242 346</b> |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 327</b> | <b>199 242 347</b> |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 328</b> | <b>199 242 348</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-30 FO              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 2 ½  | PA-30 FO              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 3    | PA-35 FO              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 4    | PA-40 FO              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| 5    | PA-45 FO              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 6    | PA-50 FO              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 8    | PA-55 FO              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 150        | 40         |            |  |
| 2 ½  | 160        | 54         | 35         |  |
| 3    | 175        | 67         | 50         |  |
| 4    | 244        | 88         | 74         |  |
| 5    | 272        | 113        | 97         |  |
| 6    | 297        | 139        | 123        |  |
| 8    | 360        | 178        | 169        |  |

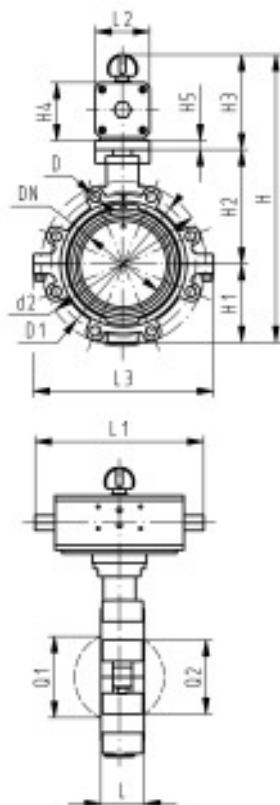


## Lugstyle butterfly valve type 242 PP-H DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | EPDM<br>Code       | FPM<br>Code        |  |  |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--------------------|--|--|--|--|--|--|--|--|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 242 362</b> | <b>199 242 382</b> |  |  |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 363</b> | <b>199 242 383</b> |  |  |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 364</b> | <b>199 242 384</b> |  |  |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 365</b> | <b>199 242 385</b> |  |  |  |  |  |  |  |  |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 242 366</b> | <b>199 242 386</b> |  |  |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 367</b> | <b>199 242 387</b> |  |  |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 368</b> | <b>199 242 388</b> |  |  |  |  |  |  |  |  |

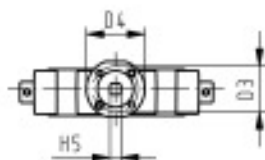
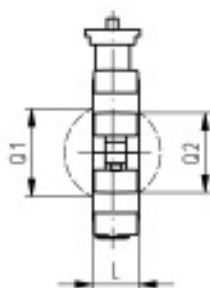
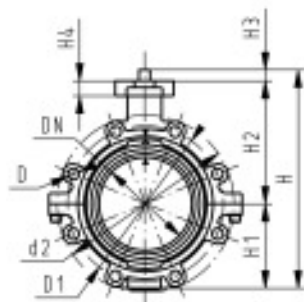
| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-35 DA              | UNC 5/8 | 121        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         |
| 2 ½  | PA-35 DA              | UNC 5/8 | 140        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        | 55         |
| 3    | PA-40 DA              | UNC 5/8 | 153        | 177        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        | 60         |
| 4    | PA-45 DA              | UNC 5/8 | 191        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         |
| 5    | PA-45 DA              | UNC 3/4 | 216        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         |
| 6    | PA-55 DA              | UNC 3/4 | 242        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         |
| 8    | PA-55 DA              | UNC 3/4 | 299        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |  |
|------|------------|------------|------------|--|--|--|--|--|--|--|--|--|--|--|
| 2    | 150        | 40         |            |  |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 160        | 54         | 35         |  |  |  |  |  |  |  |  |  |  |  |
| 3    | 175        | 67         | 50         |  |  |  |  |  |  |  |  |  |  |  |
| 4    | 244        | 88         | 74         |  |  |  |  |  |  |  |  |  |  |  |
| 5    | 272        | 113        | 97         |  |  |  |  |  |  |  |  |  |  |  |
| 6    | 297        | 139        | 123        |  |  |  |  |  |  |  |  |  |  |  |
| 8    | 360        | 178        | 169        |  |  |  |  |  |  |  |  |  |  |  |

# Butterfly valves SYGEF® ANSI

## SYGEF® standard Lugstyle butterfly valve 568 PVDF ANSI Bare shaft



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Interface F07 according to DIN/ISO 5211

| Inch | d<br>[mm] | DN<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code |
|------|-----------|------------|----|--------------------------------------------|-------------|
| 2    | 63        | 50         | 10 | 1470                                       | 175 568 922 |
| 2 ½  | 75        | 65         | 10 | 2200                                       | 175 568 923 |
| 3    | 90        | 80         | 10 | 3000                                       | 175 568 924 |
| 4    | 110       | 100        | 10 | 6500                                       | 175 568 925 |
| 5    | 140       | 125        | 10 | 11500                                      | 175 568 926 |
| 6    | 160       | 150        | 10 | 16600                                      | 175 568 927 |
| 8    | 225       | 200        | 10 | 39600                                      | 175 568 928 |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | D3<br>[mm] | D4<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|---------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | 150        | UNC 5/8 | 121        | 70         | 90         | 222       | 77         | 134        | 27         | 23         | 45        | 40         |            |
| 2 ½  | 170        | UNC 5/8 | 138        | 70         | 90         | 235       | 83         | 140        | 27         | 23         | 46        | 54         | 35         |
| 3    | 177        | UNC 5/8 | 152        | 70         | 90         | 247       | 89         | 146        | 27         | 23         | 49        | 67         | 50         |
| 4    | 216        | UNC 5/8 | 191        | 70         | 90         | 287       | 104        | 167        | 16         | 23         | 56        | 88         | 74         |
| 5    | 246        | UNC 3/4 | 216        | 70         | 90         | 313       | 117        | 181        | 16         | 23         | 64        | 113        | 97         |
| 6    | 273        | UNC 3/4 | 241        | 70         | 90         | 335       | 130        | 189        | 19         | 23         | 72        | 139        | 123        |
| 8    | 334        | UNC 3/4 | 298        | 70         | 90         | 387       | 158        | 210        | 19         | 23         | 73        | 178        | 169        |

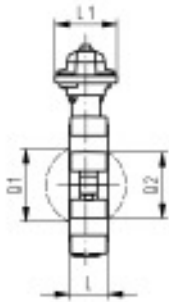
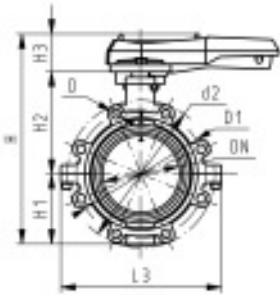


# SYGEF® standard Lugstyle butterfly valve 568 PVDF ANSI Hand lever with ratchet settings



## Model:

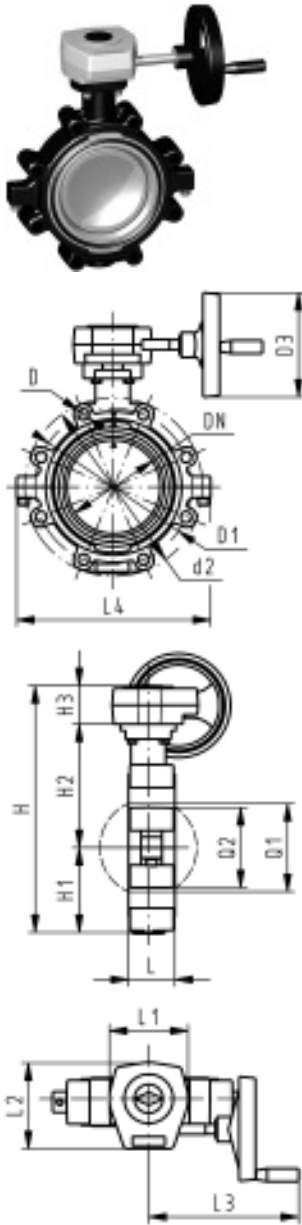
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752



| Inch | d<br>[mm] | DN  | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |  |  |  |  |  |  |  |  |
|------|-----------|-----|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|
| 2    | 63        | 50  | 10 | 1470                                       | <b>175 568 102</b> |  |  |  |  |  |  |  |  |  |
| 2 ½  | 75        | 65  | 10 | 2200                                       | <b>175 568 103</b> |  |  |  |  |  |  |  |  |  |
| 3    | 90        | 80  | 10 | 3000                                       | <b>175 568 104</b> |  |  |  |  |  |  |  |  |  |
| 4    | 110       | 100 | 10 | 6500                                       | <b>175 568 105</b> |  |  |  |  |  |  |  |  |  |
| 5    | 140       | 125 | 10 | 11500                                      | <b>175 568 106</b> |  |  |  |  |  |  |  |  |  |
| 6    | 160       | 150 | 10 | 16600                                      | <b>175 568 107</b> |  |  |  |  |  |  |  |  |  |
| 8    | 225       | 200 | 10 | 39600                                      | <b>175 568 108</b> |  |  |  |  |  |  |  |  |  |

| Inch | d2<br>[mm] | D       | D1<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|---------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 2    | 150        | UNC 5/8 | 121        | 265       | 77         | 134        | 54         | 45        | 106        | 205        | 150        | 40         |            |  |
| 2 ½  | 170        | UNC 5/8 | 138        | 277       | 83         | 140        | 54         | 46        | 106        | 205        | 160        | 54         | 35         |  |
| 3    | 177        | UNC 5/8 | 152        | 289       | 89         | 146        | 54         | 49        | 106        | 205        | 175        | 67         | 50         |  |
| 4    | 216        | UNC 5/8 | 191        | 326       | 104        | 167        | 55         | 56        | 106        | 255        | 244        | 88         | 74         |  |
| 5    | 246        | UNC 3/4 | 216        | 353       | 117        | 181        | 55         | 64        | 106        | 255        | 272        | 113        | 97         |  |
| 6    | 273        | UNC 3/4 | 241        | 374       | 130        | 189        | 55         | 72        | 106        | 255        | 297        | 139        | 123        |  |
| 8    | 334        | UNC 3/4 | 298        | 435       | 158        | 210        | 67         | 73        | 140        | 408        | 360        | 178        | 169        |  |



## SYGEF® standard Lugstyle butterfly valve 568 PVDF ANSI Reduction gear with handwheel



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752

| Inch | d<br>[mm]  | DN<br>[mm] | PN         | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |            |            |            |           |            |            |            |            |            |  |
|------|------------|------------|------------|--------------------------------------------|--------------------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|--|
| 2    | 63         | 50         | 10         | 1470                                       | <b>175 568 122</b> |            |            |            |           |            |            |            |            |            |  |
| 2 ½  | 75         | 65         | 10         | 2200                                       | <b>175 568 123</b> |            |            |            |           |            |            |            |            |            |  |
| 3    | 90         | 80         | 10         | 3000                                       | <b>175 568 124</b> |            |            |            |           |            |            |            |            |            |  |
| 4    | 110        | 100        | 10         | 6500                                       | <b>175 568 125</b> |            |            |            |           |            |            |            |            |            |  |
| 5    | 140        | 125        | 10         | 11500                                      | <b>175 568 126</b> |            |            |            |           |            |            |            |            |            |  |
| 6    | 160        | 150        | 10         | 16600                                      | <b>175 568 127</b> |            |            |            |           |            |            |            |            |            |  |
| 8    | 225        | 200        | 10         | 39600                                      | <b>175 568 128</b> |            |            |            |           |            |            |            |            |            |  |
| Inch | d2<br>[mm] | D          | D1<br>[mm] | D3<br>[mm]                                 | H<br>[mm]          | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | Q1<br>[mm] |  |
| 2    | 150        | UNC 5/8    | 121        | 160                                        | 279                | 77         | 134        | 68         | 45        | 120        | 132        | 236        | 150        | 40         |  |
| 2 ½  | 170        | UNC 5/8    | 138        | 160                                        | 291                | 83         | 140        | 68         | 46        | 120        | 132        | 236        | 160        | 54         |  |
| 3    | 177        | UNC 5/8    | 152        | 160                                        | 303                | 89         | 146        | 68         | 49        | 120        | 132        | 236        | 175        | 67         |  |
| 4    | 216        | UNC 5/8    | 191        | 160                                        | 339                | 104        | 167        | 68         | 56        | 120        | 132        | 236        | 244        | 88         |  |
| 5    | 246        | UNC 3/4    | 216        | 160                                        | 366                | 117        | 181        | 68         | 64        | 120        | 132        | 236        | 272        | 113        |  |
| 6    | 273        | UNC 3/4    | 241        | 160                                        | 387                | 130        | 189        | 68         | 72        | 120        | 132        | 236        | 297        | 139        |  |
| 8    | 334        | UNC 3/4    | 298        | 160                                        | 436                | 158        | 210        | 68         | 73        | 120        | 132        | 236        | 360        | 178        |  |
| Inch | Q2<br>[mm] |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 2    |            |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 2 ½  | 35         |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 3    | 50         |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 4    | 74         |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 5    | 97         |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 6    | 123        |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |
| 8    | 169        |            |            |                                            |                    |            |            |            |           |            |            |            |            |            |  |

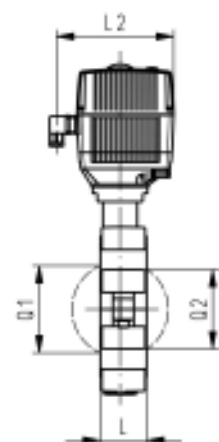
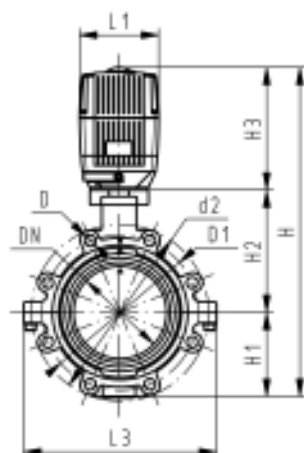
# Butterfly valves electric SYGEF® ANSI

## SYGEF® standard

### Lugstyle butterfly valve type 142

#### 100-230V ANSI

#### Without manual override



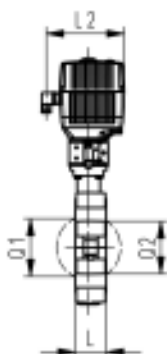
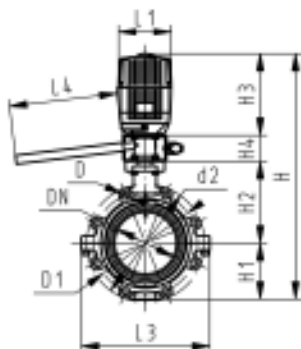
#### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|------|------------|-----------|----|--------------------------------------------|--------------------|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 142 582</b> |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 583</b> |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 584</b> |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 585</b> |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 142 586</b> |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 587</b> |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 588</b> |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        | 67         |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| Inch | Q2<br>[mm] |
|------|------------|
| 2    |            |
| 2 ½  | 35         |
| 3    | 50         |
| 4    | 74         |
| 5    | 97         |
| 6    | 123        |
| 8    | 169        |



# SYGEF® standard Lugstyle butterfly valve type 142 100-230V ANSI With manual override



## Model:

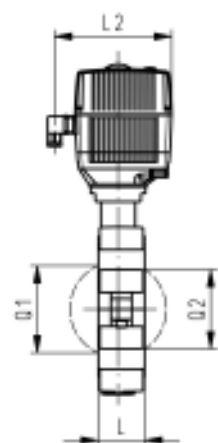
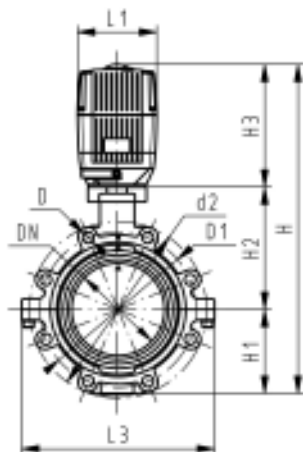
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|------|------------|-----------|----|--------------------------------------------|--------------------|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 142 562</b> |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 563</b> |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 564</b> |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 565</b> |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 142 566</b> |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 567</b> |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 568</b> |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| Inch | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|------------|
| 2    | 200        | 40         |            |
| 2 ½  | 200        | 54         | 35         |
| 3    | 200        | 67         | 50         |
| 4    | 250        | 88         | 74         |
| 5    | 250        | 113        | 97         |
| 6    | 250        | 139        | 123        |
| 8    | 250        | 178        | 169        |





## SYGEF® standard Lugstyle butterfly valve type 142 24V ANSI Without manual override



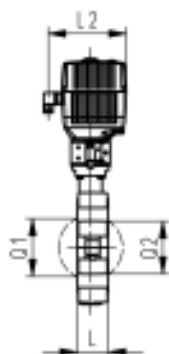
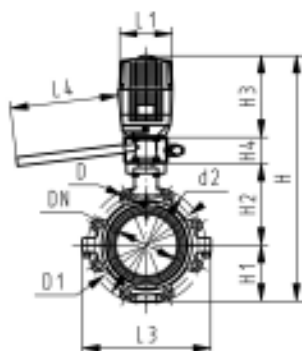
### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|------|------------|-----------|----|--------------------------------------------|--------------------|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 142 622</b> |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 623</b> |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 624</b> |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 625</b> |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 142 626</b> |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 627</b> |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 628</b> |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Q1<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 399       | 77         | 134        | 188        | 45        | 122        | 180        | 150        | 40         |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 411       | 83         | 140        | 188        | 46        | 122        | 180        | 160        | 54         |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 423       | 89         | 146        | 188        | 49        | 122        | 180        | 175        | 67         |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 459       | 104        | 167        | 188        | 56        | 122        | 180        | 244        | 88         |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 486       | 117        | 181        | 188        | 64        | 122        | 180        | 272        | 113        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 507       | 130        | 189        | 188        | 72        | 122        | 180        | 297        | 139        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 576       | 158        | 210        | 208        | 73        | 122        | 180        | 360        | 178        |

| Inch | Q2<br>[mm] |
|------|------------|
| 2    |            |
| 2 ½  | 35         |
| 3    | 50         |
| 4    | 74         |
| 5    | 97         |
| 6    | 123        |
| 8    | 169        |



## SYGEF® standard Lugstyle butterfly valve type 142 24V ANSI With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|------|------------|-----------|----|--------------------------------------------|--------------------|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 142 602</b> |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 142 603</b> |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 142 604</b> |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 142 605</b> |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 142 606</b> |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 142 607</b> |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 142 608</b> |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 2    | EA-31                 | UNC 5/8 | 121        | 150        | 459       | 77         | 134        | 188        | 60         | 45        | 122        | 180        | 150        |
| 2 ½  | EA-31                 | UNC 5/8 | 140        | 170        | 471       | 83         | 140        | 188        | 60         | 46        | 122        | 180        | 160        |
| 3    | EA-31                 | UNC 5/8 | 153        | 177        | 483       | 89         | 146        | 188        | 60         | 49        | 122        | 180        | 175        |
| 4    | EA-31                 | UNC 5/8 | 191        | 216        | 519       | 104        | 167        | 188        | 60         | 56        | 122        | 180        | 244        |
| 5    | EA-31                 | UNC 3/4 | 216        | 246        | 546       | 117        | 181        | 188        | 60         | 64        | 122        | 180        | 272        |
| 6    | EA-31                 | UNC 3/4 | 242        | 273        | 567       | 130        | 189        | 188        | 60         | 72        | 122        | 180        | 297        |
| 8    | EA-42                 | UNC 3/4 | 299        | 334        | 636       | 158        | 210        | 208        | 60         | 73        | 122        | 180        | 360        |

| Inch | L4<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|------------|
| 2    | 200        | 40         |            |
| 2 ½  | 200        | 54         | 35         |
| 3    | 200        | 67         | 50         |
| 4    | 250        | 88         | 74         |
| 5    | 250        | 113        | 97         |
| 6    | 250        | 139        | 123        |
| 8    | 250        | 178        | 169        |

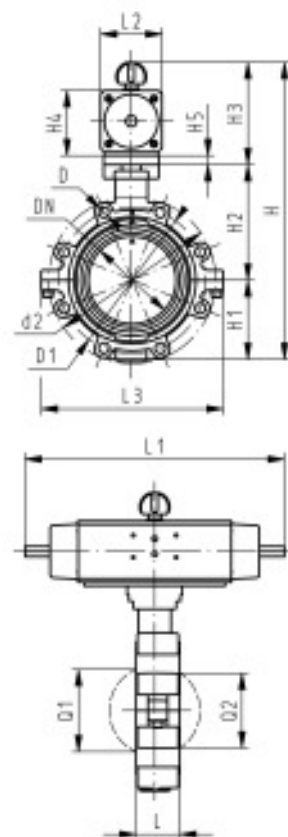
# Butterfly valves pneumatic SYGEF® ANSI

**SYGEF® standard**

**Lugstyle butterfly valve type 242 ANSI**

**FC (Fail safe to close)**

**Without manual override**



**Model:**

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)

| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |  |  |  |  |  |  |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--|--|--|--|--|--|--|--|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 242 462</b> |  |  |  |  |  |  |  |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 463</b> |  |  |  |  |  |  |  |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 464</b> |  |  |  |  |  |  |  |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 465</b> |  |  |  |  |  |  |  |  |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 242 466</b> |  |  |  |  |  |  |  |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 467</b> |  |  |  |  |  |  |  |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 468</b> |  |  |  |  |  |  |  |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-30 FC              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 2 ½  | PA-30 FC              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 3    | PA-35 FC              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 4    | PA-40 FC              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| 5    | PA-45 FC              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 6    | PA-50 FC              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 8    | PA-55 FC              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |  |  |  |  |  |  |  |  |  |
|------|------------|------------|------------|--|--|--|--|--|--|--|--|--|--|
| 2    | 150        | 40         |            |  |  |  |  |  |  |  |  |  |  |
| 2 ½  | 160        | 54         | 35         |  |  |  |  |  |  |  |  |  |  |
| 3    | 175        | 67         | 50         |  |  |  |  |  |  |  |  |  |  |
| 4    | 244        | 88         | 74         |  |  |  |  |  |  |  |  |  |  |
| 5    | 272        | 113        | 97         |  |  |  |  |  |  |  |  |  |  |
| 6    | 297        | 139        | 123        |  |  |  |  |  |  |  |  |  |  |
| 8    | 360        | 178        | 169        |  |  |  |  |  |  |  |  |  |  |

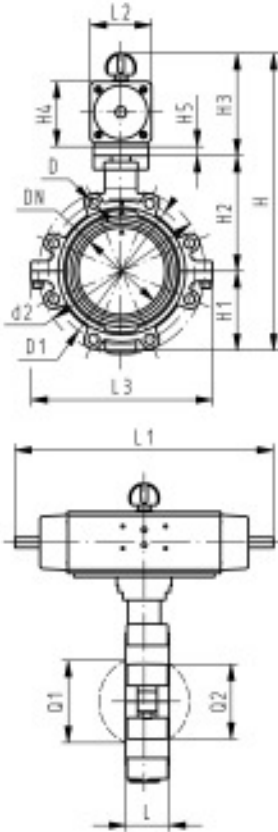


# SYGEF® standard Lugstyle butterfly valve type 242 ANSI FO (Fail safe to open) Without manual override



## Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |
|------|------------|-----------|----|--------------------------------------------|--------------------|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 242 482</b> |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 483</b> |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 484</b> |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 485</b> |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 242 486</b> |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 487</b> |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 488</b> |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-30 FO              | UNC 5/8 | 121        | 150        | 328       | 77         | 134        | 117        | 70         | 15         | 45        | 276        | 65         |
| 2 ½  | PA-30 FO              | UNC 5/8 | 140        | 170        | 340       | 83         | 140        | 117        | 70         | 15         | 46        | 276        | 65         |
| 3    | PA-35 FO              | UNC 5/8 | 153        | 177        | 361       | 89         | 146        | 126        | 78         | 15         | 49        | 326        | 72         |
| 4    | PA-40 FO              | UNC 5/8 | 191        | 216        | 400       | 104        | 167        | 129        | 86         |            | 56        | 370        | 80         |
| 5    | PA-45 FO              | UNC 3/4 | 216        | 246        | 437       | 117        | 181        | 139        | 96         |            | 64        | 411        | 90         |
| 6    | PA-50 FO              | UNC 3/4 | 242        | 273        | 468       | 130        | 189        | 149        | 106        |            | 72        | 423        | 100        |
| 8    | PA-55 FO              | UNC 3/4 | 299        | 334        | 529       | 158        | 210        | 161        | 118        |            | 73        | 452        | 112        |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |
|------|------------|------------|------------|
| 2    | 150        | 40         |            |
| 2 ½  | 160        | 54         | 35         |
| 3    | 175        | 67         | 50         |
| 4    | 244        | 88         | 74         |
| 5    | 272        | 113        | 97         |
| 6    | 297        | 139        | 123        |
| 8    | 360        | 178        | 169        |

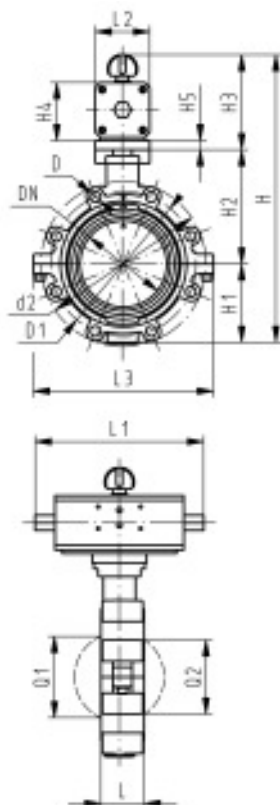


# SYGEF® standard Lugstyle butterfly valve type 242 ANSI DA (Double acting) Without manual override



## Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI B 16.5 Class 150
- Overall length according to EN 558-1, ISO 5752
- Control range 90°<)



| Inch | DN<br>[mm] | d<br>[mm] | PN | kv-value<br>( $\Delta p=1$ bar)<br>[l/min] | FPM<br>Code        |  |
|------|------------|-----------|----|--------------------------------------------|--------------------|--|
| 2    | 50         | 63        | 10 | 1470                                       | <b>199 242 502</b> |  |
| 2 ½  | 65         | 75        | 10 | 2200                                       | <b>199 242 503</b> |  |
| 3    | 80         | 90        | 10 | 3000                                       | <b>199 242 504</b> |  |
| 4    | 100        | 110       | 10 | 6500                                       | <b>199 242 505</b> |  |
| 5    | 125        | 140       | 10 | 11500                                      | <b>199 242 506</b> |  |
| 6    | 150        | 160       | 10 | 16600                                      | <b>199 242 507</b> |  |
| 8    | 200        | 225       | 10 | 39600                                      | <b>199 242 508</b> |  |

| Inch | Actuator<br>unit type | D       | D1<br>[mm] | d2<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | H5<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------|-----------------------|---------|------------|------------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| 2    | PA-35 DA              | UNC 5/8 | 121        | 150        | 318       | 77         | 134        | 107        | 60         | 15         | 45        | 177        | 55         |
| 2 ½  | PA-35 DA              | UNC 5/8 | 140        | 170        | 330       | 83         | 140        | 107        | 60         | 15         | 46        | 177        | 55         |
| 3    | PA-40 DA              | UNC 5/8 | 153        | 177        | 348       | 89         | 146        | 113        | 66         | 15         | 49        | 190        | 60         |
| 4    | PA-45 DA              | UNC 5/8 | 191        | 216        | 373       | 104        | 167        | 102        | 71         |            | 56        | 198        | 65         |
| 5    | PA-45 DA              | UNC 3/4 | 216        | 246        | 409       | 117        | 181        | 111        | 78         |            | 64        | 235        | 72         |
| 6    | PA-55 DA              | UNC 3/4 | 242        | 273        | 448       | 130        | 189        | 129        | 86         |            | 72        | 250        | 80         |
| 8    | PA-55 DA              | UNC 3/4 | 299        | 334        | 507       | 158        | 210        | 139        | 96         |            | 73        | 279        | 90         |

| Inch | L3<br>[mm] | Q1<br>[mm] | Q2<br>[mm] |  |
|------|------------|------------|------------|--|
| 2    | 150        | 40         |            |  |
| 2 ½  | 160        | 54         | 35         |  |
| 3    | 175        | 67         | 50         |  |
| 4    | 244        | 88         | 74         |  |
| 5    | 272        | 113        | 97         |  |
| 6    | 297        | 139        | 123        |  |
| 8    | 360        | 178        | 169        |  |

# Assembly parts for butterfly valves

## Intermediate element

### Pneumatic type 240 / 241 / 242

#### Without manual override



| d   | DN  | Type       | Code        |
|-----|-----|------------|-------------|
| 63  | 50  | PA30 FC/FO | 198 000 595 |
| 63  | 50  | PA35 DA    | 198 000 595 |
| 75  | 65  | PA30 FC/FO | 198 000 595 |
| 75  | 65  | PA35 DA    | 198 000 595 |
| 90  | 80  | PA40 DA    | 198 000 595 |
| 90  | 80  | PA35 FC/FO | 198 000 596 |
| 110 | 100 | PA40 FC/FO | 198 000 600 |
| 110 | 100 | PA45 DA    | 198 000 600 |
| 140 | 125 | PA45 DA    | 198 000 600 |
| 140 | 125 | PA45 FC/FO | 198 000 597 |
| 160 | 150 | PA55 DA    | 198 000 600 |
| 160 | 150 | PA50 FC    | 198 000 599 |
| 225 | 200 | PA55 FC/FO | 198 000 598 |
| 225 | 200 | PA55 DA    | 198 000 600 |

#### Code

198 000 595  
198 000 596  
198 000 600  
198 000 597  
198 000 598  
198 000 599

## Intermediate element

### Electric type 140 / 141 / 142

#### Without manual override



| d   | DN  | Type | Code        |
|-----|-----|------|-------------|
| 63  | 50  | EA31 | 198 000 601 |
| 75  | 65  | EA31 | 198 000 601 |
| 90  | 80  | EA31 | 198 000 601 |
| 110 | 100 | EA31 | 198 000 602 |
| 140 | 125 | EA31 | 198 000 602 |
| 160 | 150 | EA31 | 198 000 599 |
| 225 | 200 | EA42 | 198 000 603 |

#### Code

198 000 601  
198 000 602  
198 000 603

## Intermediate element

### Electric type 140 / 141 / 142

#### With manual override



| d-d<br>[mm] | DN-DN<br>[mm] | Type of actuator | Code        |
|-------------|---------------|------------------|-------------|
| 63 - 90     | 50 - 80       | EA31             | 198 000 623 |
| 110 - 140   | 100 - 125     | EA31             | 198 000 624 |
| 160 -       | 150 -         | EA31             | 198 000 625 |
| 225 -       | 200 -         | EA42             | 198 000 627 |

**Intermediate element**  
**Gear operated with handwheel 567 / 568**



| d   | DN  | Code        |
|-----|-----|-------------|
| 63  | 50  | 198 000 621 |
| 75  | 65  | 198 000 621 |
| 90  | 80  | 198 000 621 |
| 110 | 100 | 198 000 622 |
| 140 | 125 | 198 000 622 |
| 160 | 150 | 198 000 599 |
| 225 | 200 | 198 000 599 |

| d<br>[mm] | DN<br>[mm] | Code               |  |
|-----------|------------|--------------------|--|
| 63        | 50         | <b>198 000 621</b> |  |
| 110       | 100        | <b>198 000 622</b> |  |



# Flange Adaptor

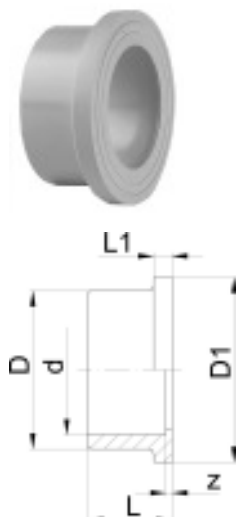
## PVC-U

### Flange adaptor PVC-U

#### Joining face flat / serrated metric

##### Model:

- Solvent cement socket metric



| d<br>[mm] | DN<br>[mm] | PN | Code        | D<br>[mm] | D1<br>[mm] | L<br>[mm] | L1<br>[mm] | z<br>[mm] |  |
|-----------|------------|----|-------------|-----------|------------|-----------|------------|-----------|--|
| 63        | 50         | 16 | 721 790 111 | 77        | 90         | 41        | 9          | 3         |  |
| 75        | 65         | 16 | 721 790 112 | 91        | 106        | 47        | 10         | 3         |  |
| 90        | 80         | 16 | 721 790 113 | 108       | 125        | 56        | 11         | 5         |  |
| 110       | 100        | 16 | 721 790 114 | 131       | 150        | 66        | 12         | 5         |  |
| 140       | 125        | 16 | 721 790 116 | 165       | 188        | 81        | 14         | 5         |  |
| 160       | 150        | 16 | 721 790 117 | 188       | 213        | 91        | 16         | 5         |  |
| 225       | 200        | 10 | 721 790 120 | 248       | 274        | 125       | 25         | 6         |  |

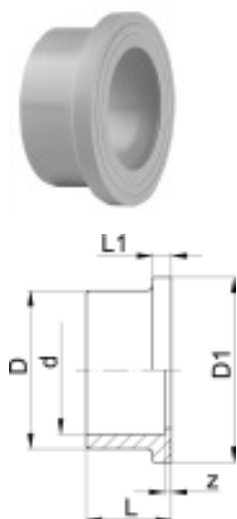
## PVC-C

### Flange adaptor PVC-C

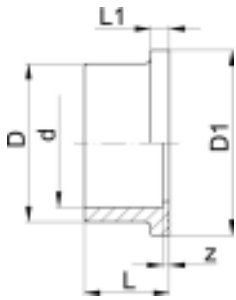
#### Joining face flat / serrated metric

##### Model:

- Solvent cement socket metric



| d<br>[mm] | DN<br>[mm] | PN | Code        | z<br>[mm] | D<br>[mm] | D1<br>[mm] | L<br>[mm] | L1<br>[mm] |  |
|-----------|------------|----|-------------|-----------|-----------|------------|-----------|------------|--|
| 63        | 50         | 16 | 723 790 111 | 3         | 76        | 90         | 41        | 9          |  |
| 75        | 65         | 16 | 723 790 112 | 3         | 91        | 106        | 47        | 10         |  |
| 90        | 80         | 16 | 723 790 113 | 5         | 108       | 125        | 56        | 11         |  |
| 110       | 100        | 16 | 723 790 114 | 5         | 131       | 150        | 66        | 12         |  |
| 160       | 150        | 16 | 723 790 117 | 5         | 188       | 213        | 91        | 16         |  |
| 225       | 200        | 10 | 723 790 120 | 6         | 248       | 274        | 125       | 25         |  |



## ABS

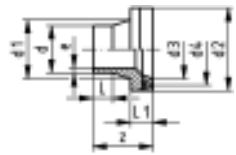
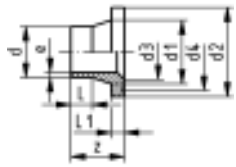
### Flange adaptor ABS metric

#### Jointing face flat / serrated metric

##### Model:

- Solvent cement socket metric

| d<br>[mm] | DN<br>[mm] | PN | Code               | D<br>[mm] | D1<br>[mm] | L<br>[mm] | L1<br>[mm] | z<br>[mm] |  |
|-----------|------------|----|--------------------|-----------|------------|-----------|------------|-----------|--|
| 63        | 50         | 10 | <b>729 790 111</b> | 76        | 90         | 41        | 9          | 3         |  |
| 75        | 65         | 10 | <b>729 790 112</b> | 91        | 106        | 47        | 10         | 3         |  |
| 90        | 80         | 10 | <b>729 790 113</b> | 108       | 125        | 56        | 11         | 5         |  |
| 110       | 100        | 10 | <b>729 790 114</b> | 131       | 150        | 66        | 12         | 5         |  |
| 140       | 125        | 10 | <b>729 790 116</b> | 165       | 188        | 81        | 14         | 5         |  |
| 160       | 150        | 10 | <b>729 790 117</b> | 188       | 213        | 91        | 16         | 5         |  |
| 225       | 200        | 10 | <b>729 790 120</b> | 248       | 274        | 125       | 25         | 6         |  |



## PP-H

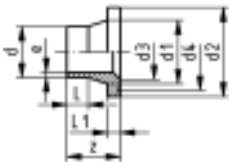
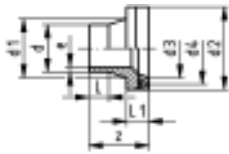
### Special flange adaptor PP-H S8,3/SDR17,6

#### Jointing face flat / serrated

##### Model:

- Conventional butt fusion according to DVS2207
- In connection with +GF+ butterfly valves, chamfered and ready for use

| d<br>[mm] | DN<br>[mm] | Code               | D<br>[mm] | D1<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | e<br>[mm] |  |
|-----------|------------|--------------------|-----------|------------|-----------|------------|------------|-----------|--|
| 63        | 50         | <b>727 798 536</b> | 75        | 102        | 50        | 14         | 18         | 3,6       |  |
| 75        | 65         | <b>727 798 412</b> | 89        | 122        | 80        | 16         | 43         | 4,3       |  |
| 90        | 80         | <b>727 798 413</b> | 105       | 138        | 80        | 17         | 41         | 5,1       |  |
| 110       | 100        | <b>727 798 414</b> | 125       | 158        | 80        | 18         | 40         | 6,3       |  |
| 140       | 125        | <b>727 798 541</b> | 155       | 188        | 80        | 18         | 34         | 8,0       |  |
| 160       | 150        | <b>727 798 842</b> | 175       | 212        | 92        | 18         | 41         | 9,1       |  |
| 225       | 200        | <b>727 798 845</b> | 235       | 268        | 100       | 24         | 44         | 12,8      |  |



## PP-H

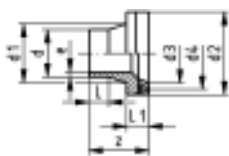
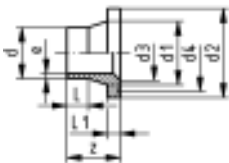
### Special flange adaptor PP-H S5/SDR11

#### Jointing face flat / serrated

##### Model:

- Conventional butt fusion according to DVS2207
- In connection with +GF+ butterfly valves, chamfered and ready for use

| d<br>[mm] | DN<br>[mm] | Code        | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | e<br>[mm] |  |
|-----------|------------|-------------|-----------|------------|------------|-----------|------------|------------|-----------|--|
| 63        | 50         | 727 798 511 | 75        | 102        |            | 68        | 14         | 38         | 5,8       |  |
| 75        | 65         | 727 798 812 |           |            |            | 43        | 16         |            | 6,8       |  |
| 90        | 80         | 727 798 813 |           |            |            | 28        | 17         |            | 8,2       |  |
| 110       | 100        | 727 798 814 |           |            |            | 28        | 18         |            | 10,0      |  |
| 140       | 125        | 727 798 816 |           |            |            | 37        | 25         |            | 12,7      |  |
| 160       | 150        | 727 798 817 |           |            |            | 41        | 25         |            | 14,6      |  |
| 225       | 200        | 727 798 820 |           |            |            | 36        | 32         |            | 20,5      |  |



## PE

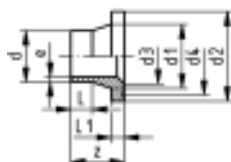
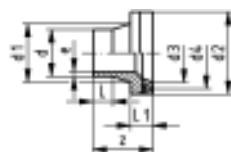
### Special flange adaptor PE100 S8,3/SDR17,6

#### Jointing face flat / serrated

##### Model:

- Conventional butt fusion according to DVS2207
- In connection with +GF+ butterfly valves, chamfered and ready for use

| d<br>[mm] | DN<br>[mm] | Code        | D<br>[mm] | D1<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | e<br>[mm] |  |
|-----------|------------|-------------|-----------|------------|-----------|------------|------------|-----------|--|
| 63        | 50         | 753 798 536 | 75        | 102        | 50        | 14         | 18         | 3,6       |  |
| 75        | 65         | 753 798 512 | 89        | 122        | 80        | 16         | 14         | 4,3       |  |
| 90        | 80         | 753 798 513 | 105       | 138        | 80        | 17         | 43         | 5,1       |  |
| 110       | 100        | 753 798 514 | 125       | 158        | 80        | 18         | 37         | 6,3       |  |
| 140       | 125        | 753 798 541 | 155       | 188        | 80        | 18         | 34         | 8,0       |  |
| 160       | 150        | 753 798 842 | 175       | 212        | 80        | 18         | 34         | 9,1       |  |
| 225       | 200        | 753 798 845 | 235       | 268        | 100       | 24         | 46         | 12,8      |  |

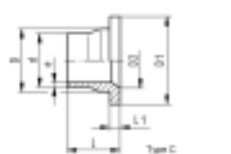
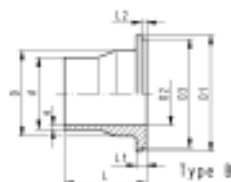


## PE Special flange adaptor PE100 S5/SDR11 Jointing face flat / serrated

### Model:

- Conventional butt fusion according to DVS2207
- In connection with +GF+ butterfly valves, chamfered and ready for use

| d<br>[mm] | DN<br>[mm] | Code               | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | e<br>[mm] |  |
|-----------|------------|--------------------|-----------|------------|------------|-----------|------------|------------|-----------|--|
| 63        | 50         | <b>753 798 611</b> | 75        | 102        |            | 63        | 14         | 31         | 5,8       |  |
| 75        | 65         | <b>753 798 812</b> |           |            |            | 27        | 16         |            | 6,8       |  |
| 90        | 80         | <b>753 798 813</b> |           |            |            | 28        | 17         |            | 8,2       |  |
| 110       | 100        | <b>753 798 814</b> |           |            |            | 28        | 18         |            | 10,0      |  |
| 140       | 125        | <b>753 798 816</b> |           |            |            | 37        | 25         |            | 12,7      |  |
| 160       | 150        | <b>753 798 817</b> |           |            |            | 40        | 25         |            | 14,6      |  |
| 225       | 200        | <b>753 798 820</b> |           |            |            | 28        | 32         |            | 20,5      |  |



## SYGEF® standard Flange adaptor PVDF Jointing face flat / serrated

### Model:

- In connection with +GF+ butterfly valves, chamfered and ready for use

| d<br>[mm] | DN<br>[mm] | PN | Code               | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | e<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | Type |  |
|-----------|------------|----|--------------------|-----------|------------|------------|------------|-----------|-----------|------------|------------|------|--|
| 63        | 50         | 16 | <b>735 798 811</b> | 75        | 102        | 56         | 133        | 3.0       | 72        | 9          | 4          | A    |  |
| 75        | 65         | 16 | <b>735 798 812</b> | 89        | 122        | 66         |            | 3.6       | 80        | 10         |            | A    |  |
| 90        | 80         | 16 | <b>735 798 813</b> | 105       | 138        | 78         |            | 4.3       | 81        | 12         |            | B    |  |
| 110       | 100        | 16 | <b>735 798 814</b> | 125       | 158        | 100        |            | 5.3       | 81        | 13         |            | C    |  |
| 140       | 125        | 16 | <b>735 798 816</b> | 155       | 188        | 127        |            | 6.7       | 90        | 16         |            | C    |  |
| 160       | 150        | 16 | <b>735 798 817</b> | 175       | 212        | 151        |            | 7.7       | 93        | 17         |            | C    |  |
| 225       | 200        | 16 | <b>735 798 820</b> | 235       | 268        | 203        |            | 10.8      | 102       | 22         |            | C    |  |

# Flange

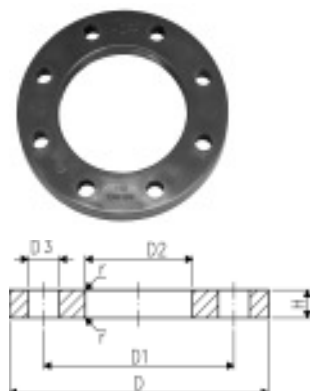
21 70 00

## Backing flange PVC-U metric

### Model:

- For socket systems
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10

### \* Connecting dimension: ISO 2536



| d<br>[mm] | DN<br>[mm] | Inch | PN | Code        | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | r<br>[mm] | AL | SC  |
|-----------|------------|------|----|-------------|-----------|------------|------------|------------|-----------|-----------|----|-----|
| 63        | 50         | 2    | 10 | 721 700 011 | 165       | 125        | 78         | 18         | 18        | 3         | 4  | M16 |
| 75        | 65         | 2 ½  | 10 | 721 700 012 | 185       | 145        | 92         | 18         | 19        | 3         | 4  | M16 |
| 90        | 80         | 3    | 10 | 721 700 013 | 200       | 160        | 110        | 18         | 20        | 3         | 8  | M16 |
| 110       | 100        | 4    | 10 | 721 700 014 | 220       | 180        | 133        | 18         | 22        | 3         | 8  | M16 |
| 140       | 125        | 5    | 10 | 721 700 016 | 250       | 210        | 167        | 18         | 26        | 4         | 8  | M16 |
| 160       | 150        | 6    | 10 | 721 700 017 | 285       | 240        | 190        | 22         | 28        | 4         | 8  | M20 |
| 225       | 200        | 8    | 10 | 721 700 020 | 340       | 295        | 250        | 22         | 32        | 4         | 8  | M20 |

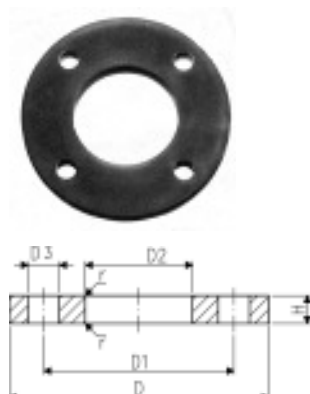
21 70 22

## Backing flange PVC-U Inch ASTM / ANSI

### Model:

- For socket systems
- For Flange Adaptors BS (ANSI)
- Connecting dimension: ANSI B 16.5 class 150 (ASTM D 4024), BS EN 1759

### \* Only for use with metric flange adaptors



| d<br>[mm] | DN<br>[mm] | Inch | PN | Code        | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | r<br>[mm] | AL |
|-----------|------------|------|----|-------------|-----------|------------|------------|------------|-----------|-----------|----|
|           | 50         | 2    | 10 | 721 702 211 | 165       | 121        | 78         | 19         | 18        | 3         | 4  |
|           | 65         | 2 ½  | 10 | 721 702 212 | 185       | 140        | 92         | 19         | 19        | 3         | 4  |
|           | 80         | 3    | 10 | 721 702 213 | 200       | 152        | 110        | 19         | 20        | 3         | 4  |
|           | 100        | 4    | 10 | 721 702 214 | 220       | 190        | 138        | 19         | 22        | 3         | 8  |
| *110      | 100        | 4    | 10 | 161 483 180 | 220       | 190        | 133        | 19         | 22        | 3         | 8  |
|           | 125        | 5    | 10 | 721 702 216 | 250       | 216        | 167        | 22         | 26        | 4         | 8  |
|           | 150        | 6    | 10 | 721 702 217 | 285       | 241        | 200        | 22         | 28        | 4         | 8  |
| *160      | 150        | 6    | 10 | 161 483 181 | 285       | 241        | 190        | 22         | 28        | 4         | 8  |
|           | 200        | 8    | 10 | 721 702 220 | 340       | 298        | 250        | 22         | 32        | 4         | 8  |

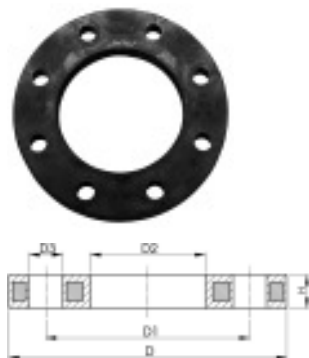
27 70 02

## Backing flange PP/Steel For socket systems metric

### Model:

- PP-GF (30% glass-fibre reinforced) with steel ring
- Connecting dimensions: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10

### \* Connecting dimension: ISO 2536



| d<br>[mm] | DN<br>[mm] | PN | Code               | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | AL | SC  |  |
|-----------|------------|----|--------------------|-----------|------------|------------|------------|-----------|----|-----|--|
| 63        | 50         | 16 | <b>727 700 211</b> | 165       | 125        | 78         | 18         | 18        | 4  | M16 |  |
| 75        | 65         | 16 | <b>727 700 212</b> | 185       | 145        | 92         | 18         | 18        | 4  | M16 |  |
| 90        | 80         | 16 | <b>727 700 213</b> | 200       | 160        | 110        | 18         | 20        | 8  | M16 |  |
| 110       | 100        | 16 | <b>727 700 214</b> | 220       | 180        | 133        | 18         | 20        | 8  | M16 |  |
| 140       | 125        | 16 | <b>727 700 216</b> | 250       | 210        | 167        | 18         | 24        | 8  | M16 |  |
| 160       | 150        | 16 | <b>727 700 217</b> | 285       | 240        | 190        | 22         | 24        | 8  | M20 |  |
| 225       | 200        | 16 | <b>727 700 220</b> | 340       | 295        | 250        | 22         | 27        | 8  | M20 |  |

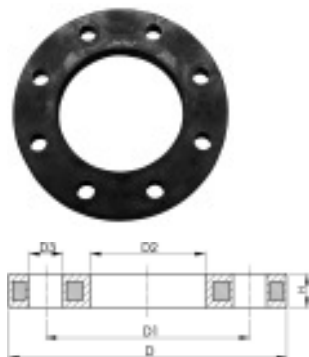
27 70 12

## Backing flange PP/Steel For socket systems Inch/ANSI

### Model:

- For socket systems
- For Flange Adaptors BS (ANSI)
- Material: PP (30 % glass-fibre reinforced) with steel ring
- Connecting dimension ANSI B 16.5 / ASTM D 4024

- DN100 and DN150: only for use with original metric flange adaptors



| d<br>[mm] | DN<br>[mm] | Inch  | PN | Code               | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | AL |  |
|-----------|------------|-------|----|--------------------|-----------|------------|------------|------------|-----------|----|--|
| 63        | 50         | 2     | 16 | <b>727 701 211</b> | 165       | 121        | 78         | 19         | 18        | 4  |  |
| 75        | 65         | 2 1/2 | 16 | <b>727 701 212</b> | 185       | 140        | 92         | 19         | 18        | 4  |  |
| 90        | 80         | 3     | 16 | <b>727 701 213</b> | 200       | 152        | 110        | 19         | 20        | 4  |  |
| 110       | 100        | 4     | 16 | <b>727 701 214</b> | 229       | 190        | 133        | 19         | 20        | 8  |  |
| 180       | 150        | 6     | 16 | <b>727 701 217</b> | 285       | 241        | 190        | 22         | 24        | 8  |  |
| 200       | 200        | 8     | 16 | <b>727 701 220</b> | 340       | 298        | 250        | 22         | 27        | 8  |  |

27 70 04  
27 70 05

## Backing flange PP-V For socket systems metric

### Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)



| d<br>[mm] | DN<br>[mm] | PN | Code        | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | AL | SC  |  |
|-----------|------------|----|-------------|-----------|------------|------------|------------|-----------|----|-----|--|
| 63        | 50         | 16 | 727 700 411 | 165       | 125        | 78         | 18         | 24        | 4  | M16 |  |
| 75        | 65         | 16 | 727 700 412 | 185       | 145        | 92         | 18         | 26        | 4  | M16 |  |
| 90        | 80         | 16 | 727 700 413 | 200       | 160        | 110        | 18         | 27        | 8  | M16 |  |
| 110       | 100        | 16 | 727 700 414 | 220       | 180        | 133        | 18         | 28        | 8  | M16 |  |
| 140       | 125        | 16 | 727 700 416 | 250       | 210        | 167        | 18         | 30        | 8  | M16 |  |
| 160       | 150        | 16 | 727 700 417 | 285       | 241        | 190        | 22         | 32        | 8  | M20 |  |
| 225       | 200        | 16 | 727 700 420 | 340       | 295        | 250        | 22         | 34        | 8  | M20 |  |

27 70 14  
27 70 15

## Backing flange PP-V For socket systems Inch/ANSI

### Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- Connection dimensions according to ANSI B 16.5, ASTM D 4024; bolt circle class 150

<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)



| d<br>[mm] | DN<br>[mm] | Inch  | PN | Code        | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | AL | SC  |  |
|-----------|------------|-------|----|-------------|-----------|------------|------------|------------|-----------|----|-----|--|
|           | 50         | 2     | 16 | 727 701 411 | 165       | 121        | 78         | 19         | 24        | 4  | M16 |  |
|           | 65         | 2 1/2 | 16 | 727 701 412 | 185       | 140        | 92         | 19         | 26        | 4  | M16 |  |
|           | 80         | 3     | 16 | 727 701 413 | 200       | 152        | 110        | 19         | 27        | 4  | M16 |  |
|           | 100        | 4     | 16 | 727 701 414 | 229       | 190        | 133        | 19         | 28        | 8  | M16 |  |
| 160       | 150        | 6     | 16 | 727 700 417 | 285       | 241        | 190        | 22         | 32        | 8  | M20 |  |
| 225       | 200        | 9     | 16 | 727 700 420 | 340       | 295        | 250        | 22         | 34        | 8  | M20 |  |



27 70 04  
27 70 05

## Backing flange PP-V For butt fusion systems metric

### Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)

| d<br>[mm] | DN<br>[mm] | PN | Code               | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | AL | SC  |  |
|-----------|------------|----|--------------------|-----------|------------|------------|------------|-----------|----|-----|--|
| 63        | 50         | 16 | <b>727 700 411</b> | 165       | 125        | 78         | 18         | 24        | 4  | M16 |  |
| 75        | 65         | 16 | <b>727 700 412</b> | 185       | 145        | 92         | 18         | 26        | 4  | M16 |  |
| 90        | 80         | 16 | <b>727 700 513</b> | 200       | 160        | 108        | 18         | 27        | 8  | M16 |  |
| 125       | 100        | 16 | <b>727 700 515</b> | 220       | 180        | 135        | 18         | 28        | 8  | M16 |  |
| 140       | 125        | 16 | <b>727 700 516</b> | 250       | 210        | 158        | 18         | 30        | 8  | M16 |  |
| 160       | 150        | 16 | <b>727 700 517</b> | 285       | 241        | 178        | 22         | 32        | 8  | M20 |  |
| 225       | 200        | 16 | <b>727 700 520</b> | 340       | 295        | 238        | 22         | 34        | 8  | M20 |  |



27 70 14  
27 70 15

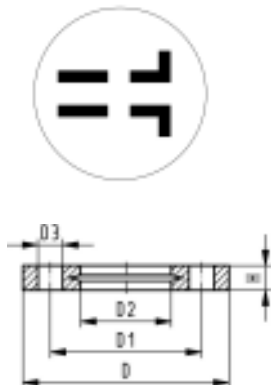
## Backing flange PP-V For butt fusion systems Inch/ANSI

### Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- Connection dimensions according to ANSI B 16.5, ASTM D 4024; bolt circle class 150

<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)

| d<br>[mm] | DN<br>[mm] | Inch | PN | Code               | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | H<br>[mm] | AL | SC  |  |
|-----------|------------|------|----|--------------------|-----------|------------|------------|------------|-----------|----|-----|--|
|           | 50         | 2    | 16 | <b>727 701 411</b> | 165       | 121        | 78         | 19         | 24        | 4  | M16 |  |
|           | 65         | 2 ½  | 16 | <b>727 701 412</b> | 185       | 140        | 92         | 19         | 26        | 4  | M16 |  |
|           | 80         | 3    | 16 | <b>727 701 513</b> | 200       | 152        | 108        | 19         | 27        | 4  | M16 |  |
|           | 100        | 4    | 16 | <b>727 701 514</b> | 229       | 190        | 128        | 19         | 28        | 8  | M16 |  |
| 160       | 150        | 6    | 16 | <b>727 700 517</b> | 285       | 241        | 178        | 22         | 32        | 8  | M20 |  |
| 225       | 200        | 9    | 16 | <b>727 700 520</b> | 340       | 295        | 238        | 22         | 34        | 8  | M20 |  |



# Seals

EPDM 48 40 01  
FPM 49 40 01

## Flat gasket

### Model:

- G-ST-P/K Profil
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**



| d<br>[mm] | DN<br>[mm] | EPDM<br>Code | FPM<br>Code | D<br>[mm] | D1<br>[mm] | H<br>[mm] | H1<br>[mm] |  |
|-----------|------------|--------------|-------------|-----------|------------|-----------|------------|--|
| 50        |            | 748 440 105  | 749 440 105 | 92        |            | 4         | 3          |  |
| 63        |            | 748 440 106  | 749 440 106 | 107       |            | 5         | 4          |  |
| 75        |            | 748 440 107  | 749 440 107 | 127       |            | 5         | 4          |  |
| 90        |            | 748 440 108  | 749 440 108 | 142       |            | 5         | 4          |  |
| 110       |            | 748 440 109  | 749 440 109 | 162       |            | 6         | 5          |  |
| 140       |            | 748 440 111  | 749 440 111 | 192       |            | 6         | 5          |  |
| 160       |            | 748 440 112  | 749 440 112 | 218       |            | 8         | 6          |  |

EPDM 48 40 01  
FPM 49 40 01

## Flat gasket

### Model:

- Hardness approx. 65° Shore



| d<br>[mm] | DN<br>[mm] | Inch | PN | EPDM<br>Code | FPM<br>Code | D<br>[mm] | D1<br>[mm] | H<br>[mm] |  |
|-----------|------------|------|----|--------------|-------------|-----------|------------|-----------|--|
| 63        | 50         | 2    | 10 | 748 400 020  | 749 400 020 | 88        | 63         | 3         |  |
| 75        | 65         | 2 ½  | 10 | 748 400 021  | 749 400 021 | 104       | 75         | 3         |  |
| 90        | 80         | 3    | 10 | 748 400 022  | 749 400 022 | 123       | 90         | 3         |  |
| 110       | 100        | 4    | 10 | 748 400 023  | 749 400 023 | 148       | 110        | 4         |  |
| 140       | 125        | 5    | 10 | 748 400 025  | 749 400 025 | 186       | 140        | 4         |  |
| 160       | 150        | 6    | 10 | 748 400 026  | 749 400 026 | 211       | 160        | 4         |  |
| 225       | 200        | 8    | 6  | 748 400 027  | 749 400 027 | 272       | 220        | 5         |  |

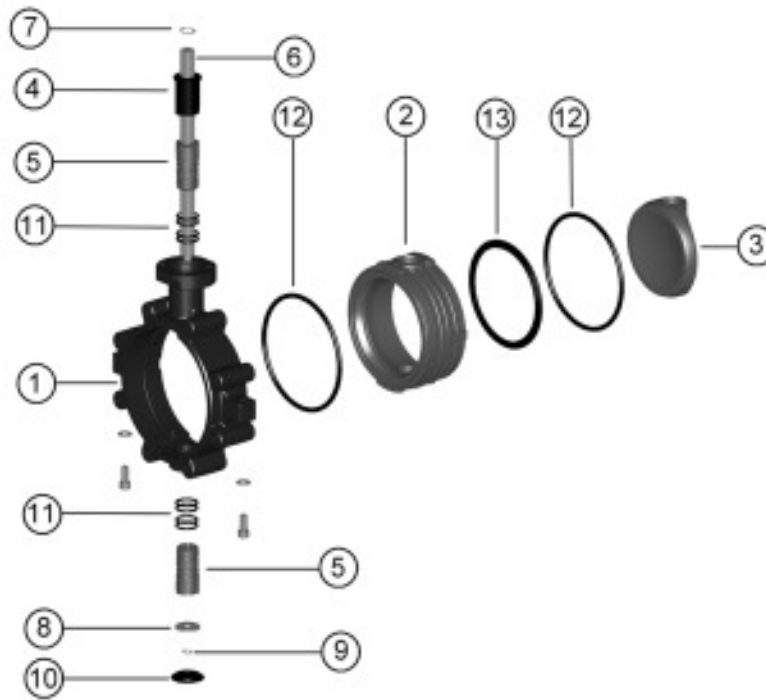


# Option

## Hand lever with fine adjustment to type 567/568

| Size | DN-DN<br>[mm] | Code               |  |
|------|---------------|--------------------|--|
| 1    | 50 - 80       | <b>161 486 325</b> |  |
| 2    | 100 - 125     | <b>161 486 326</b> |  |
| 2    | - 150         | <b>161 486 327</b> |  |
| 3    | - 200         | <b>161 486 328</b> |  |

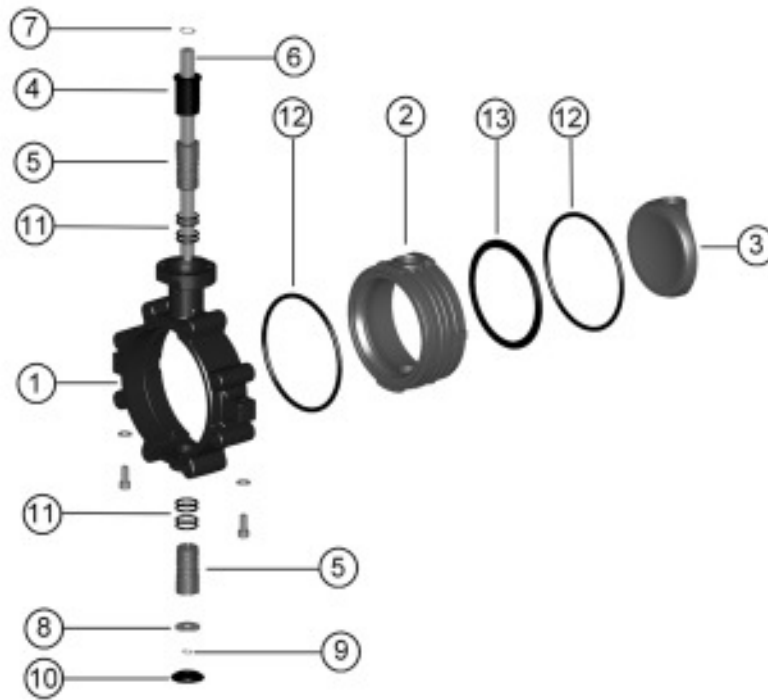
## Spare parts for butterfly valve type 568 PVC-U Hand lever with index plate



| No. | Article / Material                | Pieces |
|-----|-----------------------------------|--------|
| 3   | Disc PVC-U                        | 1      |
| 5   | Bearing bush                      | 2      |
| 11  | Bush PVC-U                        |        |
| 11  | O-ring EPDM                       | 2      |
| 5   | Bearing bush                      |        |
| 11  | Bush PVC-U                        | 2      |
| 11  | O-ring FPM                        |        |
| 2   | Inner body                        | 1      |
| 13  | Body PVC-U                        |        |
| 13  | Profile seal EPDM                 | 1      |
| 2   | Inner body                        | 1      |
| 13  | Body PVC-U                        |        |
| 13  | Profile seal FPM                  | 1      |
| 12  | Flange gasket EPDM                | 2      |
| 12  | Flange gasket FPM                 | 2      |
| 4   | End stop PP Glasfiber Reinforced  | 1      |
| 6   | Shaft set                         | 1      |
| 7+9 | Shaft Chrom Steel 1.4301 AISI 304 |        |
| 8   | Retention ring                    | 2      |
| 8   | Washer                            | 1      |
|     | Lever with index plate            | 1      |

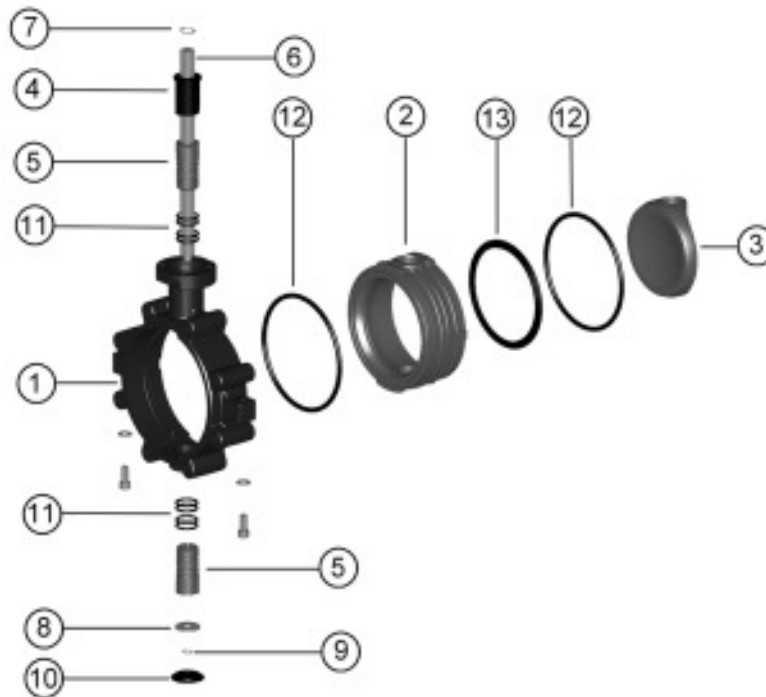
| d63 DN50    | d75 DN65    | d90 DN80    | d110 DN100  | d140 DN125  | d160 DN150  | d225 DN200  |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 161 490 889 | 161 490 890 | 161 490 891 | 161 490 892 | 161 490 893 | 161 490 894 | 161 490 895 |
| 161 486 886 | 161 486 886 | 161 486 886 | 161 486 887 | 161 486 887 | 161 486 888 | 161 486 888 |
| 161 486 892 | 161 486 892 | 161 486 892 | 161 486 893 | 161 486 893 | 161 486 894 | 161 486 894 |
| 161 486 861 | 161 486 862 | 161 486 863 | 161 486 864 | 161 486 865 | 161 486 866 | 161 486 867 |
| 161 486 873 | 161 486 874 | 161 486 875 | 161 486 876 | 161 486 877 | 161 486 878 | 161 486 879 |
| 161 486 959 | 161 486 960 | 161 486 961 | 161 486 962 | 161 486 963 | 161 486 964 | 161 486 965 |
| 161 486 979 | 161 486 980 | 161 486 981 | 161 486 982 | 161 486 983 | 161 486 984 | 161 486 985 |
| 167 486 251 | 167 486 251 | 167 486 251 | 167 483 252 | 167 483 252 | 167 483 253 | 167 483 253 |
| 161 486 899 | 161 486 900 | 161 486 901 | 161 486 902 | 161 486 903 | 161 486 904 | 161 486 905 |
| 161 486 690 | 161 486 690 | 161 486 690 | 161 486 691 | 161 486 691 | 161 486 694 | 161 486 695 |

## Spare parts for butterfly valve type 568 PVC-C Hand lever with index plate



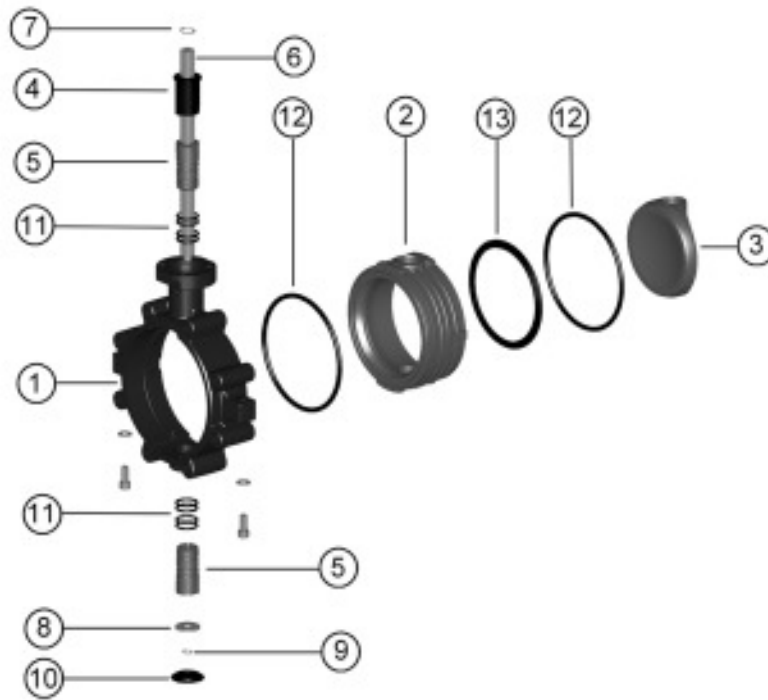
| No. | Article / Material                | Pieces | d63 DN50    | d75 DN65    | d90 DN80    | d110 DN100  | d140 DN125  | d160 DN150  | d225 DN200  |
|-----|-----------------------------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 3   | Disc PVC-C                        | 1      | 163 481 451 | 163 481 452 | 163 481 453 | 163 481 454 | 163 481 455 | 163 481 456 | 163 481 457 |
| 5   | Bearing bush                      | 2      | 163 481 576 | 163 481 576 | 163 481 576 | 163 481 577 | 163 481 577 | 163 481 578 | 163 481 578 |
| 11  | Bush PVC-C                        |        |             |             |             |             |             |             |             |
| 11  | O-ring EPDM                       | 2      |             |             |             |             |             |             |             |
| 5   | Bearing bush                      |        | 163 481 582 | 163 481 582 | 163 481 582 | 163 481 583 | 163 481 583 | 163 481 584 | 163 481 584 |
| 11  | Bush PVC-C                        | 2      |             |             |             |             |             |             |             |
| 11  | O-ring FPM                        |        |             |             |             |             |             |             |             |
| 2   | Inner body                        | 1      | 163 481 591 | 163 481 592 | 163 481 593 | 163 481 594 | 163 481 595 | 163 481 596 | 163 481 597 |
| 13  | Body PVC-C                        |        |             |             |             |             |             |             |             |
| 13  | Profile seal EPDM                 | 1      |             |             |             |             |             |             |             |
| 2   | Inner body                        | 1      | 163 481 603 | 163 481 604 | 163 481 605 | 163 481 606 | 163 481 607 | 163 481 608 | 163 481 609 |
| 13  | Body PVC-C                        |        |             |             |             |             |             |             |             |
| 13  | Profile seal FPM                  | 1      |             |             |             |             |             |             |             |
| 12  | Flange gasket EPDM                | 2      | 161 486 959 | 161 486 960 | 161 486 961 | 161 486 962 | 161 486 963 | 161 486 964 | 161 486 965 |
| 12  | Flange gasket FPM                 | 2      | 161 486 979 | 161 486 980 | 161 486 981 | 161 486 982 | 161 486 983 | 161 486 984 | 161 486 985 |
| 4   | End stop PP Glasfiber Reinforced  | 1      | 167 486 251 | 167 486 251 | 167 486 251 | 167 483 252 | 167 483 252 | 167 483 253 | 167 483 253 |
| 6   | Shaft set                         | 1      | 161 486 899 | 161 486 900 | 161 486 901 | 161 486 902 | 161 486 903 | 161 486 904 | 161 486 905 |
| 7+9 | Shaft Chrom Steel 1.4301 AISI 304 |        |             |             |             |             |             |             |             |
| 8   | Retention ring                    | 2      |             |             |             |             |             |             |             |
| 8   | Washer                            | 1      |             |             |             |             |             |             |             |
|     | Lever with index plate            | 1      | 161 486 690 | 161 486 690 | 161 486 690 | 161 486 691 | 161 486 691 | 161 486 694 | 161 486 695 |

## Spare parts for butterfly valve type 568 ABS Hand lever with index plate



| No. | Article / Material               | Pieces | d63 DN50    | d75 DN65    | d90 DN80    | d110 DN100  | d140 DN125  | d160 DN150  | d225 DN200  |
|-----|----------------------------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 3   | Disc ABS                         | 1      | 169 480 951 | 169 480 952 | 169 480 953 | 169 480 954 | 169 480 955 | 169 480 956 | 169 480 957 |
| 5   | Bearing bush                     | 2      | 167 484 259 | 167 484 259 | 167 484 259 | 167 484 260 | 167 484 260 | 167 484 261 | 167 484 261 |
| 11  | Bush PP-H                        | 2      |             |             |             |             |             |             |             |
| 11  | O-ring EPDM                      | 2      |             |             |             |             |             |             |             |
| 5   | Bearing bush                     | 2      | 167 484 265 | 167 484 265 | 167 484 265 | 167 484 266 | 167 484 266 | 167 484 267 | 167 484 267 |
| 11  | Bush PP-H                        | 2      |             |             |             |             |             |             |             |
| 11  | O-ring FPM                       | 2      |             |             |             |             |             |             |             |
|     | Inner body                       | 1      | 169 481 067 | 169 481 068 | 169 481 069 | 169 481 070 | 169 481 071 | 169 481 072 | 169 481 073 |
| 2   | Body ABS                         | 1      |             |             |             |             |             |             |             |
| 13  | Profile seal EPDM                | 1      |             |             |             |             |             |             |             |
| 12  | Flange gasket EPDM               | 2      | 161 486 959 | 161 486 960 | 161 486 961 | 161 486 962 | 161 486 963 | 161 486 964 | 161 486 965 |
| 12  | Flange gasket FPM                | 2      | 161 486 979 | 161 486 980 | 161 486 981 | 161 486 982 | 161 486 983 | 161 486 984 | 161 486 985 |
| 4   | End stop PP Glasfiber Reinforced | 1      | 167 486 251 | 167 486 251 | 167 486 251 | 167 483 252 | 167 483 252 | 167 483 253 | 167 483 253 |
|     | Shaft set                        | 1      | 161 486 899 | 161 486 900 | 161 486 901 | 161 486 902 | 161 486 903 | 161 486 904 | 161 486 905 |
| 6   | Shaft Chrom Steel 1.4301         | 1      |             |             |             |             |             |             |             |
| 7+9 | Retention ring                   | 2      |             |             |             |             |             |             |             |
| 8   | Washer                           | 1      |             |             |             |             |             |             |             |
|     | Lever with index plate           | 1      | 161 486 690 | 161 486 690 | 161 486 690 | 161 486 691 | 161 486 691 | 161 486 694 | 161 486 695 |

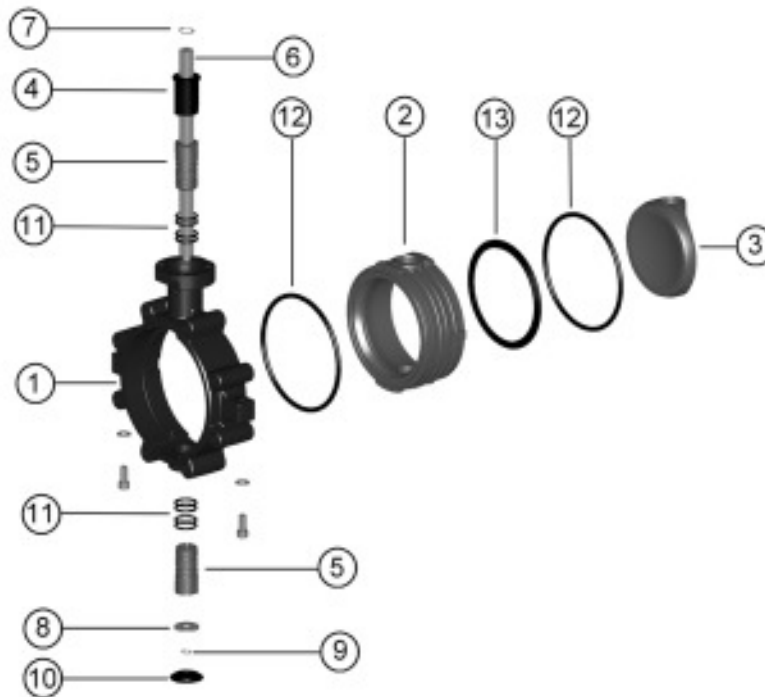
## Spare parts for butterfly valve type 568 PVDF Hand lever with index plate



| No. | Article / Material                      | Pieces | d63 DN50    | d75 DN65    | d90 DN80    | d110 DN100  | d140 DN125  | d160 DN150  | d225 DN200  |
|-----|-----------------------------------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 3   | Disc PVDF                               | 1      | 175 483 251 | 175 483 252 | 175 483 253 | 175 483 254 | 175 483 255 | 175 483 256 | 175 483 257 |
| 5   | Bearing bush                            | 2      | 175 483 426 | 175 483 426 | 175 483 426 | 175 483 427 | 175 483 427 | 175 483 428 | 175 483 428 |
| 11  | Bush PVDF                               |        |             |             |             |             |             |             |             |
| 11  | O-ring FPM                              |        |             |             |             |             |             |             |             |
|     | Inner body                              | 1      | 175 483 413 | 175 483 414 | 175 483 415 | 175 483 416 | 175 483 417 | 175 483 418 | 175 483 419 |
| 2   | Body PVDF                               |        |             |             |             |             |             |             |             |
| 13  | Profile seal FPM                        | 1      |             |             |             |             |             |             |             |
| 12  | Flange gasket EPDM                      | 2      | 161 486 959 | 161 486 960 | 161 486 961 | 161 486 962 | 161 486 963 | 161 486 964 | 161 486 965 |
| 12  | Flange gasket FPM                       | 2      | 161 486 979 | 161 486 980 | 161 486 981 | 161 486 982 | 161 486 983 | 161 486 984 | 161 486 985 |
| 4   | End stop PP<br>Glasfiber<br>Reinforced  | 1      | 167 486 251 | 167 486 251 | 167 486 251 | 167 483 252 | 167 483 252 | 167 483 253 | 167 483 253 |
|     | Shaft set                               | 1      | 161 486 899 | 161 486 900 | 161 486 901 | 161 486 902 | 161 486 903 | 161 486 904 | 161 486 905 |
| 6   | Shaft Chrom<br>Steel 1.4301<br>AISI 304 |        |             |             |             |             |             |             |             |
| 7+9 | Retention ring                          | 2      |             |             |             |             |             |             |             |
| 8   | Washer                                  | 1      |             |             |             |             |             |             |             |
|     | Hand lever with<br>index plate<br>Lever | 1      | 161 486 690 | 161 486 690 | 161 486 690 | 161 486 691 | 161 486 691 | 161 486 694 | 161 486 695 |



## Spare parts for butterfly valve type 568 PP-H Hand lever with index plate



| No. | Article / Material                      | Pieces |
|-----|-----------------------------------------|--------|
| 3   | Disc PP-H                               | 1      |
| 5   | Bearing bush                            | 2      |
| 11  | Bush PP-H                               | 2      |
|     | O-ring EPDM                             |        |
| 5   | Bearing bush                            | 2      |
| 11  | Bush PP-H                               | 2      |
|     | O-ring FPM                              |        |
| 2   | Inner body                              | 1      |
| 13  | Body PP-H                               | 1      |
|     | Profile seal EPDM                       | 1      |
| 2   | Inner body                              | 1      |
| 13  | Body PP-H                               | 1      |
|     | Profile seal FPM                        | 1      |
| 12  | Flange gasket EPDM                      | 2      |
| 12  | Flange gasket FPM                       | 2      |
| 4   | End stop PP<br>Glasfiber<br>Reinforced  | 1      |
| 6   | Shaft set                               | 1      |
| 7+9 | Shaft Chrom<br>Steel 1.4301<br>AISI 304 | 2      |
| 8   | Retention ring                          | 1      |
|     | Washer                                  | 1      |
|     | Lever with index<br>plate               | 1      |

| d63 DN50    | d75 DN65    | d90 DN80    | d110 DN100  | d140 DN125  | d160 DN150  | d225 DN200  |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 167 483 226 | 167 483 227 | 167 483 228 | 167 483 229 | 167 483 230 | 167 483 231 | 167 483 232 |
| 167 484 259 | 167 484 259 | 167 484 259 | 167 484 260 | 167 484 260 | 167 484 261 | 167 484 261 |
| 167 484 265 | 167 484 265 | 167 484 265 | 167 484 266 | 167 484 266 | 167 484 267 | 167 484 267 |
| 167 484 271 | 167 484 272 | 167 484 273 | 167 484 274 | 167 484 275 | 167 484 276 | 167 484 277 |
| 167 484 286 | 167 484 287 | 167 484 288 | 167 484 289 | 167 484 290 | 167 484 291 | 167 484 292 |
| 161 486 959 | 161 486 960 | 161 486 961 | 161 486 962 | 161 486 963 | 161 486 964 | 161 486 965 |
| 161 486 979 | 161 486 980 | 161 486 981 | 161 486 982 | 161 486 983 | 161 486 984 | 161 486 985 |
| 167 486 251 | 167 486 251 | 167 486 251 | 167 483 252 | 167 483 252 | 167 483 253 | 167 483 253 |
| 161 486 899 | 161 486 900 | 161 486 901 | 161 486 902 | 161 486 903 | 161 486 904 | 161 486 905 |
| 161 486 690 | 161 486 690 | 161 486 690 | 161 486 691 | 161 486 691 | 161 486 694 | 161 486 695 |

# Code-Index

| Code        | Page | Code        | Page | Code        | Page |
|-------------|------|-------------|------|-------------|------|
| 161 483 180 | 115  | 161 568 024 | 6    | 161 568 508 | 60   |
| 161 483 181 | 115  | 161 568 025 | 6    | 161 568 522 | 60   |
| 161 486 325 | 120  | 161 568 026 | 6    | 161 568 523 | 60   |
| 161 486 326 | 120  | 161 568 027 | 6    | 161 568 524 | 60   |
| 161 486 327 | 120  | 161 568 028 | 6    | 161 568 525 | 60   |
| 161 486 328 | 120  | 161 568 042 | 7    | 161 568 526 | 60   |
| 161 486 690 | 121  | 161 568 043 | 7    | 161 568 527 | 60   |
| 161 486 691 | 121  | 161 568 044 | 7    | 161 568 528 | 60   |
| 161 486 694 | 121  | 161 568 045 | 7    | 161 568 802 | 5    |
| 161 486 695 | 121  | 161 568 046 | 7    | 161 568 803 | 5    |
| 161 486 861 | 121  | 161 568 047 | 7    | 161 568 804 | 5    |
| 161 486 862 | 121  | 161 568 048 | 7    | 161 568 805 | 5    |
| 161 486 863 | 121  | 161 568 062 | 7    | 161 568 806 | 5    |
| 161 486 864 | 121  | 161 568 063 | 7    | 161 568 807 | 5    |
| 161 486 865 | 121  | 161 568 064 | 7    | 161 568 808 | 5    |
| 161 486 866 | 121  | 161 568 065 | 7    | 161 568 822 | 5    |
| 161 486 867 | 121  | 161 568 066 | 7    | 161 568 823 | 5    |
| 161 486 873 | 121  | 161 568 067 | 7    | 161 568 824 | 5    |
| 161 486 874 | 121  | 161 568 068 | 7    | 161 568 825 | 5    |
| 161 486 875 | 121  | 161 568 102 | 58   | 161 568 826 | 5    |
| 161 486 876 | 121  | 161 568 103 | 58   | 161 568 827 | 5    |
| 161 486 877 | 121  | 161 568 104 | 58   | 161 568 828 | 5    |
| 161 486 878 | 121  | 161 568 105 | 58   | 161 568 902 | 57   |
| 161 486 879 | 121  | 161 568 106 | 58   | 161 568 903 | 57   |
| 161 486 886 | 121  | 161 568 107 | 58   | 161 568 904 | 57   |
| 161 486 887 | 121  | 161 568 108 | 58   | 161 568 905 | 57   |
| 161 486 888 | 121  | 161 568 122 | 58   | 161 568 906 | 57   |
| 161 486 892 | 121  | 161 568 123 | 58   | 161 568 907 | 57   |
| 161 486 893 | 121  | 161 568 124 | 58   | 161 568 908 | 57   |
| 161 486 894 | 121  | 161 568 125 | 58   | 161 568 922 | 57   |
| 161 486 899 | 121  | 161 568 126 | 58   | 161 568 923 | 57   |
| 161 486 900 | 121  | 161 568 127 | 58   | 161 568 924 | 57   |
| 161 486 901 | 121  | 161 568 128 | 58   | 161 568 925 | 57   |
| 161 486 902 | 121  | 161 568 142 | 59   | 161 568 926 | 57   |
| 161 486 903 | 121  | 161 568 143 | 59   | 161 568 927 | 57   |
| 161 486 904 | 121  | 161 568 144 | 59   | 161 568 928 | 57   |
| 161 486 905 | 121  | 161 568 145 | 59   | 163 481 451 | 122  |
| 161 486 959 | 121  | 161 568 146 | 59   | 163 481 452 | 122  |
| 161 486 960 | 121  | 161 568 147 | 59   | 163 481 453 | 122  |
| 161 486 961 | 121  | 161 568 148 | 59   | 163 481 454 | 122  |
| 161 486 962 | 121  | 161 568 162 | 59   | 163 481 455 | 122  |
| 161 486 963 | 121  | 161 568 163 | 59   | 163 481 456 | 122  |
| 161 486 964 | 121  | 161 568 164 | 59   | 163 481 457 | 122  |
| 161 486 965 | 121  | 161 568 165 | 59   | 163 481 576 | 122  |
| 161 486 979 | 121  | 161 568 166 | 59   | 163 481 577 | 122  |
| 161 486 980 | 121  | 161 568 167 | 59   | 163 481 578 | 122  |
| 161 486 981 | 121  | 161 568 168 | 59   | 163 481 582 | 122  |
| 161 486 982 | 121  | 161 568 402 | 8    | 163 481 583 | 122  |
| 161 486 983 | 121  | 161 568 403 | 8    | 163 481 584 | 122  |
| 161 486 984 | 121  | 161 568 404 | 8    | 163 481 591 | 122  |
| 161 486 985 | 121  | 161 568 405 | 8    | 163 481 592 | 122  |
| 161 490 889 | 121  | 161 568 406 | 8    | 163 481 593 | 122  |
| 161 490 890 | 121  | 161 568 407 | 8    | 163 481 594 | 122  |
| 161 490 891 | 121  | 161 568 408 | 8    | 163 481 595 | 122  |
| 161 490 892 | 121  | 161 568 422 | 8    | 163 481 596 | 122  |
| 161 490 893 | 121  | 161 568 423 | 8    | 163 481 597 | 122  |
| 161 490 894 | 121  | 161 568 424 | 8    | 163 481 603 | 122  |
| 161 490 895 | 121  | 161 568 425 | 8    | 163 481 604 | 122  |
| 161 568 002 | 6    | 161 568 426 | 8    | 163 481 605 | 122  |
| 161 568 003 | 6    | 161 568 427 | 8    | 163 481 606 | 122  |
| 161 568 004 | 6    | 161 568 428 | 8    | 163 481 607 | 122  |
| 161 568 005 | 6    | 161 568 502 | 60   | 163 481 608 | 122  |
| 161 568 006 | 6    | 161 568 503 | 60   | 163 481 609 | 122  |
| 161 568 007 | 6    | 161 568 504 | 60   | 163 568 002 | 17   |
| 161 568 008 | 6    | 161 568 505 | 60   | 163 568 003 | 17   |
| 161 568 022 | 6    | 161 568 506 | 60   | 163 568 004 | 17   |
| 161 568 023 | 6    | 161 568 507 | 60   | 163 568 005 | 17   |

# Code-Index

| Code        | Page |
|-------------|------|
| 163 568 006 | 17   |
| 163 568 007 | 17   |
| 163 568 008 | 17   |
| 163 568 022 | 17   |
| 163 568 023 | 17   |
| 163 568 024 | 17   |
| 163 568 025 | 17   |
| 163 568 026 | 17   |
| 163 568 027 | 17   |
| 163 568 028 | 17   |
| 163 568 042 | 18   |
| 163 568 043 | 18   |
| 163 568 044 | 18   |
| 163 568 045 | 18   |
| 163 568 046 | 18   |
| 163 568 047 | 18   |
| 163 568 048 | 18   |
| 163 568 062 | 18   |
| 163 568 063 | 18   |
| 163 568 064 | 18   |
| 163 568 065 | 18   |
| 163 568 066 | 18   |
| 163 568 067 | 18   |
| 163 568 068 | 18   |
| 163 568 102 | 69   |
| 163 568 103 | 69   |
| 163 568 104 | 69   |
| 163 568 105 | 69   |
| 163 568 106 | 69   |
| 163 568 107 | 69   |
| 163 568 108 | 69   |
| 163 568 122 | 69   |
| 163 568 123 | 69   |
| 163 568 124 | 69   |
| 163 568 125 | 69   |
| 163 568 126 | 69   |
| 163 568 127 | 69   |
| 163 568 128 | 69   |
| 163 568 142 | 70   |
| 163 568 143 | 70   |
| 163 568 144 | 70   |
| 163 568 145 | 70   |
| 163 568 146 | 70   |
| 163 568 147 | 70   |
| 163 568 148 | 70   |
| 163 568 162 | 70   |
| 163 568 163 | 70   |
| 163 568 164 | 70   |
| 163 568 165 | 70   |
| 163 568 166 | 70   |
| 163 568 167 | 70   |
| 163 568 168 | 70   |
| 163 568 802 | 16   |
| 163 568 803 | 16   |
| 163 568 804 | 16   |
| 163 568 805 | 16   |
| 163 568 806 | 16   |
| 163 568 807 | 16   |
| 163 568 808 | 16   |
| 163 568 822 | 16   |
| 163 568 823 | 16   |
| 163 568 824 | 16   |
| 163 568 825 | 16   |
| 163 568 826 | 16   |
| 163 568 827 | 16   |
| 163 568 828 | 16   |
| 163 568 902 | 68   |

| Code        | Page |
|-------------|------|
| 163 568 903 | 68   |
| 163 568 904 | 68   |
| 163 568 905 | 68   |
| 163 568 906 | 68   |
| 163 568 907 | 68   |
| 163 568 908 | 68   |
| 163 568 922 | 68   |
| 163 568 923 | 68   |
| 163 568 924 | 68   |
| 163 568 925 | 68   |
| 163 568 926 | 68   |
| 163 568 927 | 68   |
| 163 568 928 | 68   |
| 167 483 226 | 125  |
| 167 483 227 | 125  |
| 167 483 228 | 125  |
| 167 483 229 | 125  |
| 167 483 230 | 125  |
| 167 483 231 | 125  |
| 167 483 232 | 125  |
| 167 483 252 | 121  |
| 167 483 253 | 121  |
| 167 484 259 | 123  |
| 167 484 260 | 123  |
| 167 484 261 | 123  |
| 167 484 265 | 123  |
| 167 484 266 | 123  |
| 167 484 267 | 123  |
| 167 484 271 | 125  |
| 167 484 272 | 125  |
| 167 484 273 | 125  |
| 167 484 274 | 125  |
| 167 484 275 | 125  |
| 167 484 276 | 125  |
| 167 484 277 | 125  |
| 167 484 286 | 125  |
| 167 484 287 | 125  |
| 167 484 288 | 125  |
| 167 484 289 | 125  |
| 167 484 290 | 125  |
| 167 484 291 | 125  |
| 167 484 292 | 125  |
| 167 486 251 | 121  |
| 167 568 002 | 37   |
| 167 568 003 | 37   |
| 167 568 004 | 37   |
| 167 568 005 | 37   |
| 167 568 006 | 37   |
| 167 568 007 | 37   |
| 167 568 008 | 37   |
| 167 568 022 | 37   |
| 167 568 023 | 37   |
| 167 568 024 | 37   |
| 167 568 025 | 37   |
| 167 568 026 | 37   |
| 167 568 027 | 37   |
| 167 568 028 | 37   |
| 167 568 042 | 38   |
| 167 568 043 | 38   |
| 167 568 044 | 38   |
| 167 568 045 | 38   |
| 167 568 046 | 38   |
| 167 568 047 | 38   |
| 167 568 048 | 38   |
| 167 568 062 | 38   |
| 167 568 063 | 38   |
| 167 568 064 | 38   |

| Code        | Page |
|-------------|------|
| 167 568 065 | 38   |
| 167 568 066 | 38   |
| 167 568 067 | 38   |
| 167 568 068 | 38   |
| 167 568 102 | 89   |
| 167 568 103 | 89   |
| 167 568 104 | 89   |
| 167 568 105 | 89   |
| 167 568 106 | 89   |
| 167 568 107 | 89   |
| 167 568 108 | 89   |
| 167 568 122 | 89   |
| 167 568 123 | 89   |
| 167 568 124 | 89   |
| 167 568 125 | 89   |
| 167 568 126 | 89   |
| 167 568 127 | 89   |
| 167 568 128 | 89   |
| 167 568 142 | 90   |
| 167 568 143 | 90   |
| 167 568 144 | 90   |
| 167 568 145 | 90   |
| 167 568 146 | 90   |
| 167 568 147 | 90   |
| 167 568 148 | 90   |
| 167 568 162 | 90   |
| 167 568 163 | 90   |
| 167 568 164 | 90   |
| 167 568 165 | 90   |
| 167 568 166 | 90   |
| 167 568 167 | 90   |
| 167 568 168 | 90   |
| 167 568 402 | 39   |
| 167 568 403 | 39   |
| 167 568 404 | 39   |
| 167 568 405 | 39   |
| 167 568 406 | 39   |
| 167 568 407 | 39   |
| 167 568 408 | 39   |
| 167 568 422 | 39   |
| 167 568 423 | 39   |
| 167 568 424 | 39   |
| 167 568 425 | 39   |
| 167 568 426 | 39   |
| 167 568 427 | 39   |
| 167 568 428 | 39   |
| 167 568 502 | 91   |
| 167 568 503 | 91   |
| 167 568 504 | 91   |
| 167 568 505 | 91   |
| 167 568 506 | 91   |
| 167 568 507 | 91   |
| 167 568 508 | 91   |
| 167 568 522 | 91   |
| 167 568 523 | 91   |
| 167 568 524 | 91   |
| 167 568 525 | 91   |
| 167 568 526 | 91   |
| 167 568 527 | 91   |
| 167 568 528 | 91   |
| 167 568 802 | 36   |
| 167 568 803 | 36   |
| 167 568 804 | 36   |
| 167 568 805 | 36   |
| 167 568 806 | 36   |
| 167 568 807 | 36   |
| 167 568 808 | 36   |

# Code-Index

| Code        | Page | Code        | Page | Code        | Page |
|-------------|------|-------------|------|-------------|------|
| 167 568 822 | 36   | 169 568 806 | 26   | 175 568 927 | 99   |
| 167 568 823 | 36   | 169 568 807 | 26   | 175 568 928 | 99   |
| 167 568 824 | 36   | 169 568 808 | 26   | 198 000 595 | 109  |
| 167 568 825 | 36   | 169 568 902 | 78   | 198 000 596 | 109  |
| 167 568 826 | 36   | 169 568 903 | 78   | 198 000 597 | 109  |
| 167 568 827 | 36   | 169 568 904 | 78   | 198 000 598 | 109  |
| 167 568 828 | 36   | 169 568 905 | 78   | 198 000 599 | 109  |
| 167 568 902 | 88   | 169 568 906 | 78   | 198 000 600 | 109  |
| 167 568 903 | 88   | 169 568 907 | 78   | 198 000 601 | 109  |
| 167 568 904 | 88   | 169 568 908 | 78   | 198 000 602 | 109  |
| 167 568 905 | 88   | 175 483 251 | 124  | 198 000 603 | 109  |
| 167 568 906 | 88   | 175 483 252 | 124  | 198 000 621 | 110  |
| 167 568 907 | 88   | 175 483 253 | 124  | 198 000 622 | 110  |
| 167 568 908 | 88   | 175 483 254 | 124  | 198 000 623 | 109  |
| 167 568 922 | 88   | 175 483 255 | 124  | 198 000 624 | 109  |
| 167 568 923 | 88   | 175 483 256 | 124  | 198 000 625 | 109  |
| 167 568 924 | 88   | 175 483 257 | 124  | 198 000 627 | 109  |
| 167 568 925 | 88   | 175 483 413 | 124  | 199 141 002 | 10   |
| 167 568 926 | 88   | 175 483 414 | 124  | 199 141 003 | 10   |
| 167 568 927 | 88   | 175 483 415 | 124  | 199 141 004 | 10   |
| 167 568 928 | 88   | 175 483 416 | 124  | 199 141 005 | 10   |
| 169 480 951 | 123  | 175 483 417 | 124  | 199 141 006 | 10   |
| 169 480 952 | 123  | 175 483 418 | 124  | 199 141 007 | 10   |
| 169 480 953 | 123  | 175 483 419 | 124  | 199 141 008 | 10   |
| 169 480 954 | 123  | 175 483 426 | 124  | 199 141 022 | 10   |
| 169 480 955 | 123  | 175 483 427 | 124  | 199 141 023 | 10   |
| 169 480 956 | 123  | 175 483 428 | 124  | 199 141 024 | 10   |
| 169 480 957 | 123  | 175 568 002 | 48   | 199 141 025 | 10   |
| 169 481 067 | 123  | 175 568 003 | 48   | 199 141 026 | 10   |
| 169 481 068 | 123  | 175 568 004 | 48   | 199 141 027 | 10   |
| 169 481 069 | 123  | 175 568 005 | 48   | 199 141 028 | 10   |
| 169 481 070 | 123  | 175 568 006 | 48   | 199 141 042 | 9    |
| 169 481 071 | 123  | 175 568 007 | 48   | 199 141 043 | 9    |
| 169 481 072 | 123  | 175 568 008 | 48   | 199 141 044 | 9    |
| 169 481 073 | 123  | 175 568 022 | 49   | 199 141 045 | 9    |
| 169 568 002 | 27   | 175 568 023 | 49   | 199 141 046 | 9    |
| 169 568 003 | 27   | 175 568 024 | 49   | 199 141 047 | 9    |
| 169 568 004 | 27   | 175 568 025 | 49   | 199 141 048 | 9    |
| 169 568 005 | 27   | 175 568 026 | 49   | 199 141 062 | 9    |
| 169 568 006 | 27   | 175 568 027 | 49   | 199 141 063 | 9    |
| 169 568 007 | 27   | 175 568 028 | 49   | 199 141 064 | 9    |
| 169 568 008 | 27   | 175 568 102 | 100  | 199 141 065 | 9    |
| 169 568 022 | 28   | 175 568 103 | 100  | 199 141 066 | 9    |
| 169 568 023 | 28   | 175 568 104 | 100  | 199 141 067 | 9    |
| 169 568 024 | 28   | 175 568 105 | 100  | 199 141 068 | 9    |
| 169 568 025 | 28   | 175 568 106 | 100  | 199 141 082 | 12   |
| 169 568 026 | 28   | 175 568 107 | 100  | 199 141 083 | 12   |
| 169 568 027 | 28   | 175 568 108 | 100  | 199 141 084 | 12   |
| 169 568 028 | 28   | 175 568 122 | 101  | 199 141 085 | 12   |
| 169 568 102 | 79   | 175 568 123 | 101  | 199 141 086 | 12   |
| 169 568 103 | 79   | 175 568 124 | 101  | 199 141 087 | 12   |
| 169 568 104 | 79   | 175 568 125 | 101  | 199 141 088 | 12   |
| 169 568 105 | 79   | 175 568 126 | 101  | 199 141 102 | 12   |
| 169 568 106 | 79   | 175 568 127 | 101  | 199 141 103 | 12   |
| 169 568 107 | 79   | 175 568 128 | 101  | 199 141 104 | 12   |
| 169 568 108 | 79   | 175 568 822 | 47   | 199 141 105 | 12   |
| 169 568 122 | 80   | 175 568 823 | 47   | 199 141 106 | 12   |
| 169 568 123 | 80   | 175 568 824 | 47   | 199 141 107 | 12   |
| 169 568 124 | 80   | 175 568 825 | 47   | 199 141 108 | 12   |
| 169 568 125 | 80   | 175 568 826 | 47   | 199 141 122 | 11   |
| 169 568 126 | 80   | 175 568 827 | 47   | 199 141 123 | 11   |
| 169 568 127 | 80   | 175 568 828 | 47   | 199 141 124 | 11   |
| 169 568 128 | 80   | 175 568 922 | 99   | 199 141 125 | 11   |
| 169 568 802 | 26   | 175 568 923 | 99   | 199 141 126 | 11   |
| 169 568 803 | 26   | 175 568 924 | 99   | 199 141 127 | 11   |
| 169 568 804 | 26   | 175 568 925 | 99   | 199 141 128 | 11   |
| 169 568 805 | 26   | 175 568 926 | 99   | 199 141 142 | 11   |

# Code-Index

| Code        | Page |
|-------------|------|
| 199 141 143 | 11   |
| 199 141 144 | 11   |
| 199 141 145 | 11   |
| 199 141 146 | 11   |
| 199 141 147 | 11   |
| 199 141 148 | 11   |
| 199 141 162 | 20   |
| 199 141 163 | 20   |
| 199 141 164 | 20   |
| 199 141 165 | 20   |
| 199 141 166 | 20   |
| 199 141 167 | 20   |
| 199 141 168 | 20   |
| 199 141 182 | 20   |
| 199 141 183 | 20   |
| 199 141 184 | 20   |
| 199 141 185 | 20   |
| 199 141 186 | 20   |
| 199 141 187 | 20   |
| 199 141 188 | 20   |
| 199 141 202 | 19   |
| 199 141 203 | 19   |
| 199 141 204 | 19   |
| 199 141 205 | 19   |
| 199 141 206 | 19   |
| 199 141 207 | 19   |
| 199 141 208 | 19   |
| 199 141 222 | 19   |
| 199 141 223 | 19   |
| 199 141 224 | 19   |
| 199 141 225 | 19   |
| 199 141 226 | 19   |
| 199 141 227 | 19   |
| 199 141 228 | 19   |
| 199 141 242 | 22   |
| 199 141 243 | 22   |
| 199 141 244 | 22   |
| 199 141 245 | 22   |
| 199 141 246 | 22   |
| 199 141 247 | 22   |
| 199 141 248 | 22   |
| 199 141 262 | 22   |
| 199 141 263 | 22   |
| 199 141 264 | 22   |
| 199 141 265 | 22   |
| 199 141 266 | 22   |
| 199 141 267 | 22   |
| 199 141 268 | 22   |
| 199 141 282 | 21   |
| 199 141 283 | 21   |
| 199 141 284 | 21   |
| 199 141 285 | 21   |
| 199 141 286 | 21   |
| 199 141 287 | 21   |
| 199 141 288 | 21   |
| 199 141 302 | 21   |
| 199 141 303 | 21   |
| 199 141 304 | 21   |
| 199 141 305 | 21   |
| 199 141 306 | 21   |
| 199 141 307 | 21   |
| 199 141 308 | 21   |
| 199 141 322 | 41   |
| 199 141 323 | 41   |
| 199 141 324 | 41   |
| 199 141 325 | 41   |
| 199 141 326 | 41   |

| Code        | Page |
|-------------|------|
| 199 141 327 | 41   |
| 199 141 328 | 41   |
| 199 141 342 | 41   |
| 199 141 343 | 41   |
| 199 141 344 | 41   |
| 199 141 345 | 41   |
| 199 141 346 | 41   |
| 199 141 347 | 41   |
| 199 141 348 | 41   |
| 199 141 362 | 40   |
| 199 141 363 | 40   |
| 199 141 364 | 40   |
| 199 141 365 | 40   |
| 199 141 366 | 40   |
| 199 141 367 | 40   |
| 199 141 368 | 40   |
| 199 141 382 | 40   |
| 199 141 383 | 40   |
| 199 141 384 | 40   |
| 199 141 385 | 40   |
| 199 141 386 | 40   |
| 199 141 387 | 40   |
| 199 141 388 | 40   |
| 199 141 402 | 43   |
| 199 141 403 | 43   |
| 199 141 404 | 43   |
| 199 141 405 | 43   |
| 199 141 406 | 43   |
| 199 141 407 | 43   |
| 199 141 408 | 43   |
| 199 141 422 | 43   |
| 199 141 423 | 43   |
| 199 141 424 | 43   |
| 199 141 425 | 43   |
| 199 141 426 | 43   |
| 199 141 427 | 43   |
| 199 141 428 | 43   |
| 199 141 442 | 42   |
| 199 141 443 | 42   |
| 199 141 444 | 42   |
| 199 141 445 | 42   |
| 199 141 446 | 42   |
| 199 141 447 | 42   |
| 199 141 448 | 42   |
| 199 141 462 | 42   |
| 199 141 463 | 42   |
| 199 141 464 | 42   |
| 199 141 465 | 42   |
| 199 141 466 | 42   |
| 199 141 467 | 42   |
| 199 141 468 | 42   |
| 199 141 482 | 30   |
| 199 141 483 | 30   |
| 199 141 484 | 30   |
| 199 141 485 | 30   |
| 199 141 486 | 30   |
| 199 141 487 | 30   |
| 199 141 488 | 30   |
| 199 141 502 | 29   |
| 199 141 503 | 29   |
| 199 141 504 | 29   |
| 199 141 505 | 29   |
| 199 141 506 | 29   |
| 199 141 507 | 29   |
| 199 141 508 | 29   |
| 199 141 522 | 32   |
| 199 141 523 | 32   |

| Code        | Page |
|-------------|------|
| 199 141 524 | 32   |
| 199 141 525 | 32   |
| 199 141 526 | 32   |
| 199 141 527 | 32   |
| 199 141 528 | 32   |
| 199 141 542 | 31   |
| 199 141 543 | 31   |
| 199 141 544 | 31   |
| 199 141 545 | 31   |
| 199 141 546 | 31   |
| 199 141 547 | 31   |
| 199 141 548 | 31   |
| 199 141 562 | 51   |
| 199 141 563 | 51   |
| 199 141 564 | 51   |
| 199 141 565 | 51   |
| 199 141 566 | 51   |
| 199 141 567 | 51   |
| 199 141 568 | 51   |
| 199 141 582 | 50   |
| 199 141 583 | 50   |
| 199 141 584 | 50   |
| 199 141 585 | 50   |
| 199 141 586 | 50   |
| 199 141 587 | 50   |
| 199 141 588 | 50   |
| 199 141 602 | 53   |
| 199 141 603 | 53   |
| 199 141 604 | 53   |
| 199 141 605 | 53   |
| 199 141 606 | 53   |
| 199 141 607 | 53   |
| 199 141 608 | 53   |
| 199 141 622 | 52   |
| 199 141 623 | 52   |
| 199 141 624 | 52   |
| 199 141 625 | 52   |
| 199 141 626 | 52   |
| 199 141 627 | 52   |
| 199 141 628 | 52   |
| 199 142 002 | 62   |
| 199 142 003 | 62   |
| 199 142 004 | 62   |
| 199 142 005 | 62   |
| 199 142 006 | 62   |
| 199 142 007 | 62   |
| 199 142 008 | 62   |
| 199 142 022 | 62   |
| 199 142 023 | 62   |
| 199 142 024 | 62   |
| 199 142 025 | 62   |
| 199 142 026 | 62   |
| 199 142 027 | 62   |
| 199 142 028 | 62   |
| 199 142 042 | 61   |
| 199 142 043 | 61   |
| 199 142 044 | 61   |
| 199 142 045 | 61   |
| 199 142 046 | 61   |
| 199 142 047 | 61   |
| 199 142 048 | 61   |
| 199 142 062 | 61   |
| 199 142 063 | 61   |
| 199 142 064 | 61   |
| 199 142 065 | 61   |
| 199 142 066 | 61   |
| 199 142 067 | 61   |

# Code-Index

| Code        | Page | Code        | Page | Code        | Page |
|-------------|------|-------------|------|-------------|------|
| 199 142 068 | 61   | 199 142 265 | 74   | 199 142 462 | 94   |
| 199 142 082 | 64   | 199 142 266 | 74   | 199 142 463 | 94   |
| 199 142 083 | 64   | 199 142 267 | 74   | 199 142 464 | 94   |
| 199 142 084 | 64   | 199 142 268 | 74   | 199 142 465 | 94   |
| 199 142 085 | 64   | 199 142 282 | 73   | 199 142 466 | 94   |
| 199 142 086 | 64   | 199 142 283 | 73   | 199 142 467 | 94   |
| 199 142 087 | 64   | 199 142 284 | 73   | 199 142 468 | 94   |
| 199 142 088 | 64   | 199 142 285 | 73   | 199 142 482 | 82   |
| 199 142 102 | 64   | 199 142 286 | 73   | 199 142 483 | 82   |
| 199 142 103 | 64   | 199 142 287 | 73   | 199 142 484 | 82   |
| 199 142 104 | 64   | 199 142 288 | 73   | 199 142 485 | 82   |
| 199 142 105 | 64   | 199 142 302 | 73   | 199 142 486 | 82   |
| 199 142 106 | 64   | 199 142 303 | 73   | 199 142 487 | 82   |
| 199 142 107 | 64   | 199 142 304 | 73   | 199 142 488 | 82   |
| 199 142 108 | 64   | 199 142 305 | 73   | 199 142 502 | 81   |
| 199 142 122 | 63   | 199 142 306 | 73   | 199 142 503 | 81   |
| 199 142 123 | 63   | 199 142 307 | 73   | 199 142 504 | 81   |
| 199 142 124 | 63   | 199 142 308 | 73   | 199 142 505 | 81   |
| 199 142 125 | 63   | 199 142 322 | 93   | 199 142 506 | 81   |
| 199 142 126 | 63   | 199 142 323 | 93   | 199 142 507 | 81   |
| 199 142 127 | 63   | 199 142 324 | 93   | 199 142 508 | 81   |
| 199 142 128 | 63   | 199 142 325 | 93   | 199 142 522 | 84   |
| 199 142 142 | 63   | 199 142 326 | 93   | 199 142 523 | 84   |
| 199 142 143 | 63   | 199 142 327 | 93   | 199 142 524 | 84   |
| 199 142 144 | 63   | 199 142 328 | 93   | 199 142 525 | 84   |
| 199 142 145 | 63   | 199 142 342 | 93   | 199 142 526 | 84   |
| 199 142 146 | 63   | 199 142 343 | 93   | 199 142 527 | 84   |
| 199 142 147 | 63   | 199 142 344 | 93   | 199 142 528 | 84   |
| 199 142 148 | 63   | 199 142 345 | 93   | 199 142 542 | 83   |
| 199 142 162 | 72   | 199 142 346 | 93   | 199 142 543 | 83   |
| 199 142 163 | 72   | 199 142 347 | 93   | 199 142 544 | 83   |
| 199 142 164 | 72   | 199 142 348 | 93   | 199 142 545 | 83   |
| 199 142 165 | 72   | 199 142 362 | 92   | 199 142 546 | 83   |
| 199 142 166 | 72   | 199 142 363 | 92   | 199 142 547 | 83   |
| 199 142 167 | 72   | 199 142 364 | 92   | 199 142 548 | 83   |
| 199 142 168 | 72   | 199 142 365 | 92   | 199 142 562 | 103  |
| 199 142 182 | 72   | 199 142 366 | 92   | 199 142 563 | 103  |
| 199 142 183 | 72   | 199 142 367 | 92   | 199 142 564 | 103  |
| 199 142 184 | 72   | 199 142 368 | 92   | 199 142 565 | 103  |
| 199 142 185 | 72   | 199 142 382 | 92   | 199 142 566 | 103  |
| 199 142 186 | 72   | 199 142 383 | 92   | 199 142 567 | 103  |
| 199 142 187 | 72   | 199 142 384 | 92   | 199 142 568 | 103  |
| 199 142 188 | 72   | 199 142 385 | 92   | 199 142 582 | 102  |
| 199 142 202 | 71   | 199 142 386 | 92   | 199 142 583 | 102  |
| 199 142 203 | 71   | 199 142 387 | 92   | 199 142 584 | 102  |
| 199 142 204 | 71   | 199 142 388 | 92   | 199 142 585 | 102  |
| 199 142 205 | 71   | 199 142 402 | 95   | 199 142 586 | 102  |
| 199 142 206 | 71   | 199 142 403 | 95   | 199 142 587 | 102  |
| 199 142 207 | 71   | 199 142 404 | 95   | 199 142 588 | 102  |
| 199 142 208 | 71   | 199 142 405 | 95   | 199 142 602 | 105  |
| 199 142 222 | 71   | 199 142 406 | 95   | 199 142 603 | 105  |
| 199 142 223 | 71   | 199 142 407 | 95   | 199 142 604 | 105  |
| 199 142 224 | 71   | 199 142 408 | 95   | 199 142 605 | 105  |
| 199 142 225 | 71   | 199 142 422 | 95   | 199 142 606 | 105  |
| 199 142 226 | 71   | 199 142 423 | 95   | 199 142 607 | 105  |
| 199 142 227 | 71   | 199 142 424 | 95   | 199 142 608 | 105  |
| 199 142 228 | 71   | 199 142 425 | 95   | 199 142 622 | 104  |
| 199 142 242 | 74   | 199 142 426 | 95   | 199 142 623 | 104  |
| 199 142 243 | 74   | 199 142 427 | 95   | 199 142 624 | 104  |
| 199 142 244 | 74   | 199 142 428 | 95   | 199 142 625 | 104  |
| 199 142 245 | 74   | 199 142 442 | 94   | 199 142 626 | 104  |
| 199 142 246 | 74   | 199 142 443 | 94   | 199 142 627 | 104  |
| 199 142 247 | 74   | 199 142 444 | 94   | 199 142 628 | 104  |
| 199 142 248 | 74   | 199 142 445 | 94   | 199 241 002 | 13   |
| 199 142 262 | 74   | 199 142 446 | 94   | 199 241 003 | 13   |
| 199 142 263 | 74   | 199 142 447 | 94   | 199 241 004 | 13   |
| 199 142 264 | 74   | 199 142 448 | 94   | 199 241 005 | 13   |

# Code-Index

| Code        | Page |
|-------------|------|
| 199 241 006 | 13   |
| 199 241 007 | 13   |
| 199 241 008 | 13   |
| 199 241 022 | 13   |
| 199 241 023 | 13   |
| 199 241 024 | 13   |
| 199 241 025 | 13   |
| 199 241 026 | 13   |
| 199 241 027 | 13   |
| 199 241 028 | 13   |
| 199 241 042 | 14   |
| 199 241 043 | 14   |
| 199 241 044 | 14   |
| 199 241 045 | 14   |
| 199 241 046 | 14   |
| 199 241 047 | 14   |
| 199 241 048 | 14   |
| 199 241 062 | 14   |
| 199 241 063 | 14   |
| 199 241 064 | 14   |
| 199 241 065 | 14   |
| 199 241 066 | 14   |
| 199 241 067 | 14   |
| 199 241 068 | 14   |
| 199 241 082 | 15   |
| 199 241 083 | 15   |
| 199 241 084 | 15   |
| 199 241 085 | 15   |
| 199 241 086 | 15   |
| 199 241 087 | 15   |
| 199 241 088 | 15   |
| 199 241 102 | 15   |
| 199 241 103 | 15   |
| 199 241 104 | 15   |
| 199 241 105 | 15   |
| 199 241 106 | 15   |
| 199 241 107 | 15   |
| 199 241 108 | 15   |
| 199 241 162 | 23   |
| 199 241 163 | 23   |
| 199 241 164 | 23   |
| 199 241 165 | 23   |
| 199 241 166 | 23   |
| 199 241 167 | 23   |
| 199 241 168 | 23   |
| 199 241 182 | 23   |
| 199 241 183 | 23   |
| 199 241 184 | 23   |
| 199 241 185 | 23   |
| 199 241 186 | 23   |
| 199 241 187 | 23   |
| 199 241 188 | 23   |
| 199 241 202 | 24   |
| 199 241 203 | 24   |
| 199 241 204 | 24   |
| 199 241 205 | 24   |
| 199 241 206 | 24   |
| 199 241 207 | 24   |
| 199 241 208 | 24   |
| 199 241 222 | 24   |
| 199 241 223 | 24   |
| 199 241 224 | 24   |
| 199 241 225 | 24   |
| 199 241 226 | 24   |
| 199 241 227 | 24   |
| 199 241 228 | 24   |
| 199 241 242 | 25   |

| Code        | Page |
|-------------|------|
| 199 241 243 | 25   |
| 199 241 244 | 25   |
| 199 241 245 | 25   |
| 199 241 246 | 25   |
| 199 241 247 | 25   |
| 199 241 248 | 25   |
| 199 241 262 | 25   |
| 199 241 263 | 25   |
| 199 241 264 | 25   |
| 199 241 265 | 25   |
| 199 241 266 | 25   |
| 199 241 267 | 25   |
| 199 241 268 | 25   |
| 199 241 282 | 44   |
| 199 241 283 | 44   |
| 199 241 284 | 44   |
| 199 241 285 | 44   |
| 199 241 286 | 44   |
| 199 241 287 | 44   |
| 199 241 288 | 44   |
| 199 241 302 | 44   |
| 199 241 303 | 44   |
| 199 241 304 | 44   |
| 199 241 305 | 44   |
| 199 241 306 | 44   |
| 199 241 307 | 44   |
| 199 241 308 | 44   |
| 199 241 322 | 45   |
| 199 241 323 | 45   |
| 199 241 324 | 45   |
| 199 241 325 | 45   |
| 199 241 326 | 45   |
| 199 241 327 | 45   |
| 199 241 328 | 45   |
| 199 241 342 | 45   |
| 199 241 343 | 45   |
| 199 241 344 | 45   |
| 199 241 345 | 45   |
| 199 241 346 | 45   |
| 199 241 347 | 45   |
| 199 241 348 | 45   |
| 199 241 362 | 46   |
| 199 241 363 | 46   |
| 199 241 364 | 46   |
| 199 241 365 | 46   |
| 199 241 366 | 46   |
| 199 241 367 | 46   |
| 199 241 368 | 46   |
| 199 241 382 | 46   |
| 199 241 383 | 46   |
| 199 241 384 | 46   |
| 199 241 385 | 46   |
| 199 241 386 | 46   |
| 199 241 387 | 46   |
| 199 241 388 | 46   |
| 199 241 402 | 33   |
| 199 241 403 | 33   |
| 199 241 404 | 33   |
| 199 241 405 | 33   |
| 199 241 406 | 33   |
| 199 241 407 | 33   |
| 199 241 408 | 33   |
| 199 241 422 | 34   |
| 199 241 423 | 34   |
| 199 241 424 | 34   |
| 199 241 425 | 34   |
| 199 241 426 | 34   |

| Code        | Page |
|-------------|------|
| 199 241 427 | 34   |
| 199 241 428 | 34   |
| 199 241 442 | 35   |
| 199 241 443 | 35   |
| 199 241 444 | 35   |
| 199 241 445 | 35   |
| 199 241 446 | 35   |
| 199 241 447 | 35   |
| 199 241 448 | 35   |
| 199 241 462 | 54   |
| 199 241 463 | 54   |
| 199 241 464 | 54   |
| 199 241 465 | 54   |
| 199 241 466 | 54   |
| 199 241 467 | 54   |
| 199 241 468 | 54   |
| 199 241 482 | 55   |
| 199 241 483 | 55   |
| 199 241 484 | 55   |
| 199 241 485 | 55   |
| 199 241 486 | 55   |
| 199 241 487 | 55   |
| 199 241 488 | 55   |
| 199 241 502 | 56   |
| 199 241 503 | 56   |
| 199 241 504 | 56   |
| 199 241 505 | 56   |
| 199 241 506 | 56   |
| 199 241 507 | 56   |
| 199 241 508 | 56   |
| 199 242 002 | 65   |
| 199 242 003 | 65   |
| 199 242 004 | 65   |
| 199 242 005 | 65   |
| 199 242 006 | 65   |
| 199 242 007 | 65   |
| 199 242 008 | 65   |
| 199 242 022 | 65   |
| 199 242 023 | 65   |
| 199 242 024 | 65   |
| 199 242 025 | 65   |
| 199 242 026 | 65   |
| 199 242 027 | 65   |
| 199 242 028 | 65   |
| 199 242 042 | 66   |
| 199 242 043 | 66   |
| 199 242 044 | 66   |
| 199 242 045 | 66   |
| 199 242 046 | 66   |
| 199 242 047 | 66   |
| 199 242 048 | 66   |
| 199 242 062 | 66   |
| 199 242 063 | 66   |
| 199 242 064 | 66   |
| 199 242 065 | 66   |
| 199 242 066 | 66   |
| 199 242 067 | 66   |
| 199 242 068 | 66   |
| 199 242 082 | 67   |
| 199 242 083 | 67   |
| 199 242 084 | 67   |
| 199 242 085 | 67   |
| 199 242 086 | 67   |
| 199 242 087 | 67   |
| 199 242 088 | 67   |
| 199 242 102 | 67   |
| 199 242 103 | 67   |



# Code-Index

| Code        | Page | Code        | Page | Code        | Page |
|-------------|------|-------------|------|-------------|------|
| 199 242 104 | 67   | 199 242 328 | 97   | 721 700 014 | 115  |
| 199 242 105 | 67   | 199 242 342 | 97   | 721 700 016 | 115  |
| 199 242 106 | 67   | 199 242 343 | 97   | 721 700 017 | 115  |
| 199 242 107 | 67   | 199 242 344 | 97   | 721 700 020 | 115  |
| 199 242 108 | 67   | 199 242 345 | 97   | 721 702 211 | 115  |
| 199 242 162 | 75   | 199 242 346 | 97   | 721 702 212 | 115  |
| 199 242 163 | 75   | 199 242 347 | 97   | 721 702 213 | 115  |
| 199 242 164 | 75   | 199 242 348 | 97   | 721 702 214 | 115  |
| 199 242 165 | 75   | 199 242 362 | 98   | 721 702 216 | 115  |
| 199 242 166 | 75   | 199 242 363 | 98   | 721 702 217 | 115  |
| 199 242 167 | 75   | 199 242 364 | 98   | 721 702 220 | 115  |
| 199 242 168 | 75   | 199 242 365 | 98   | 721 790 111 | 111  |
| 199 242 182 | 75   | 199 242 366 | 98   | 721 790 112 | 111  |
| 199 242 183 | 75   | 199 242 367 | 98   | 721 790 113 | 111  |
| 199 242 184 | 75   | 199 242 368 | 98   | 721 790 114 | 111  |
| 199 242 185 | 75   | 199 242 382 | 98   | 721 790 116 | 111  |
| 199 242 186 | 75   | 199 242 383 | 98   | 721 790 117 | 111  |
| 199 242 187 | 75   | 199 242 384 | 98   | 721 790 120 | 111  |
| 199 242 188 | 75   | 199 242 385 | 98   | 723 790 111 | 111  |
| 199 242 202 | 76   | 199 242 386 | 98   | 723 790 112 | 111  |
| 199 242 203 | 76   | 199 242 387 | 98   | 723 790 113 | 111  |
| 199 242 204 | 76   | 199 242 388 | 98   | 723 790 114 | 111  |
| 199 242 205 | 76   | 199 242 402 | 85   | 723 790 117 | 111  |
| 199 242 206 | 76   | 199 242 403 | 85   | 723 790 120 | 111  |
| 199 242 207 | 76   | 199 242 404 | 85   | 727 700 211 | 116  |
| 199 242 208 | 76   | 199 242 405 | 85   | 727 700 212 | 116  |
| 199 242 222 | 76   | 199 242 406 | 85   | 727 700 213 | 116  |
| 199 242 223 | 76   | 199 242 407 | 85   | 727 700 214 | 116  |
| 199 242 224 | 76   | 199 242 408 | 85   | 727 700 216 | 116  |
| 199 242 225 | 76   | 199 242 422 | 86   | 727 700 217 | 116  |
| 199 242 226 | 76   | 199 242 423 | 86   | 727 700 220 | 116  |
| 199 242 227 | 76   | 199 242 424 | 86   | 727 700 411 | 117  |
| 199 242 228 | 76   | 199 242 425 | 86   | 727 700 412 | 117  |
| 199 242 242 | 77   | 199 242 426 | 86   | 727 700 413 | 117  |
| 199 242 243 | 77   | 199 242 427 | 86   | 727 700 414 | 117  |
| 199 242 244 | 77   | 199 242 428 | 86   | 727 700 416 | 117  |
| 199 242 245 | 77   | 199 242 442 | 87   | 727 700 417 | 117  |
| 199 242 246 | 77   | 199 242 443 | 87   | 727 700 420 | 117  |
| 199 242 247 | 77   | 199 242 444 | 87   | 727 700 513 | 118  |
| 199 242 248 | 77   | 199 242 445 | 87   | 727 700 515 | 118  |
| 199 242 262 | 77   | 199 242 446 | 87   | 727 700 516 | 118  |
| 199 242 263 | 77   | 199 242 447 | 87   | 727 700 517 | 118  |
| 199 242 264 | 77   | 199 242 448 | 87   | 727 700 520 | 118  |
| 199 242 265 | 77   | 199 242 462 | 106  | 727 701 211 | 116  |
| 199 242 266 | 77   | 199 242 463 | 106  | 727 701 212 | 116  |
| 199 242 267 | 77   | 199 242 464 | 106  | 727 701 213 | 116  |
| 199 242 268 | 77   | 199 242 465 | 106  | 727 701 214 | 116  |
| 199 242 282 | 96   | 199 242 466 | 106  | 727 701 217 | 116  |
| 199 242 283 | 96   | 199 242 467 | 106  | 727 701 220 | 116  |
| 199 242 284 | 96   | 199 242 468 | 106  | 727 701 411 | 117  |
| 199 242 285 | 96   | 199 242 482 | 107  | 727 701 412 | 117  |
| 199 242 286 | 96   | 199 242 483 | 107  | 727 701 413 | 117  |
| 199 242 287 | 96   | 199 242 484 | 107  | 727 701 414 | 117  |
| 199 242 288 | 96   | 199 242 485 | 107  | 727 701 513 | 118  |
| 199 242 302 | 96   | 199 242 486 | 107  | 727 701 514 | 118  |
| 199 242 303 | 96   | 199 242 487 | 107  | 727 798 412 | 112  |
| 199 242 304 | 96   | 199 242 488 | 107  | 727 798 413 | 112  |
| 199 242 305 | 96   | 199 242 502 | 108  | 727 798 414 | 112  |
| 199 242 306 | 96   | 199 242 503 | 108  | 727 798 511 | 113  |
| 199 242 307 | 96   | 199 242 504 | 108  | 727 798 536 | 112  |
| 199 242 308 | 96   | 199 242 505 | 108  | 727 798 541 | 112  |
| 199 242 322 | 97   | 199 242 506 | 108  | 727 798 812 | 113  |
| 199 242 323 | 97   | 199 242 507 | 108  | 727 798 813 | 113  |
| 199 242 324 | 97   | 199 242 508 | 108  | 727 798 814 | 113  |
| 199 242 325 | 97   | 721 700 011 | 115  | 727 798 816 | 113  |
| 199 242 326 | 97   | 721 700 012 | 115  | 727 798 817 | 113  |
| 199 242 327 | 97   | 721 700 013 | 115  | 727 798 820 | 113  |



# Code-Index

| Code        | Page |
|-------------|------|
| 727 798 842 | 112  |
| 727 798 845 | 112  |
| 729 790 111 | 112  |
| 729 790 112 | 112  |
| 729 790 113 | 112  |
| 729 790 114 | 112  |
| 729 790 116 | 112  |
| 729 790 117 | 112  |
| 729 790 120 | 112  |
| 735 798 811 | 114  |
| 735 798 812 | 114  |
| 735 798 813 | 114  |
| 735 798 814 | 114  |
| 735 798 816 | 114  |
| 735 798 817 | 114  |
| 735 798 820 | 114  |
| 748 400 020 | 119  |
| 748 400 021 | 119  |
| 748 400 022 | 119  |
| 748 400 023 | 119  |
| 748 400 025 | 119  |
| 748 400 026 | 119  |
| 748 400 027 | 119  |
| 748 440 105 | 119  |
| 748 440 106 | 119  |
| 748 440 107 | 119  |
| 748 440 108 | 119  |
| 748 440 109 | 119  |
| 748 440 111 | 119  |
| 748 440 112 | 119  |
| 749 400 020 | 119  |
| 749 400 021 | 119  |
| 749 400 022 | 119  |
| 749 400 023 | 119  |
| 749 400 025 | 119  |
| 749 400 026 | 119  |
| 749 400 027 | 119  |
| 749 440 105 | 119  |
| 749 440 106 | 119  |
| 749 440 107 | 119  |
| 749 440 108 | 119  |
| 749 440 109 | 119  |
| 749 440 111 | 119  |
| 749 440 112 | 119  |
| 753 798 512 | 113  |
| 753 798 513 | 113  |
| 753 798 514 | 113  |
| 753 798 536 | 113  |
| 753 798 541 | 113  |
| 753 798 611 | 114  |
| 753 798 812 | 114  |
| 753 798 813 | 114  |
| 753 798 814 | 114  |
| 753 798 816 | 114  |
| 753 798 817 | 114  |
| 753 798 820 | 114  |
| 753 798 842 | 113  |
| 753 798 845 | 113  |







# General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

## 1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer to the Purchaser. They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

## 2 Tenders

- Tenders shall only be binding if they contain a specifically stated period for acceptance.

## 3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

## 4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

## 5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

## 6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

## 7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms of the ICC, latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import duties etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still out-standing provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
  - a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
  - b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially impractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads.  
Should the effect of force majeure exceed a period of six months, either party may cancel the contract forthwith.  
Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
  - c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one month which equally is not met.  
The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to liquidated damages in the amount of 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved. Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage.

## 11 Packing

- If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms ICC, latest version), even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

## 13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.  
In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the Products.

## 14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within 7 working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertake to repair or replace at their discretion, as quickly as possible and free of charge all Products supplied which demonstrably suffer from faulty design, materials or workman-ship or from faulty operating or installation instructions.  
In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via [www.piping.georgfischer.com](http://www.piping.georgfischer.com).  
Replaced parts shall become property of Georg Fischer.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if also a second attempt to repair or replace the Products has failed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
  - Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object as well as, in case of negligence, all other direct damages caused by the defective Product (damage to property and injury to or death of persons) up to CHF 1 000 000 per occurrence.
  - the statute of limitations for warranty or damage claims - contrary to Section 15.6 - will be 5 years from the date of installation.

## 16 Limitation of Liability

- All cases of breach of contract and the relevant consequences as well as all rights and claims on the part of the customer, irrespective on what ground they are based, are exhaustively covered by these general conditions of supply. In particular, any claims not expressly mentioned for damages, reduction of price, termination or withdrawal from the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit and other direct or indirect or consequential damage. This exclusion of liability, however, does not apply to unlawful intent or gross negligence on the part of Georg Fischer and in case of strict liability under applicable product liability statutes, but does apply to unlawful intent or gross negligence of persons employed or appointed by Georg Fischer to perform any of its obligations.

## 17 Severability

- Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

## 18 Place of Performance and Jurisdiction

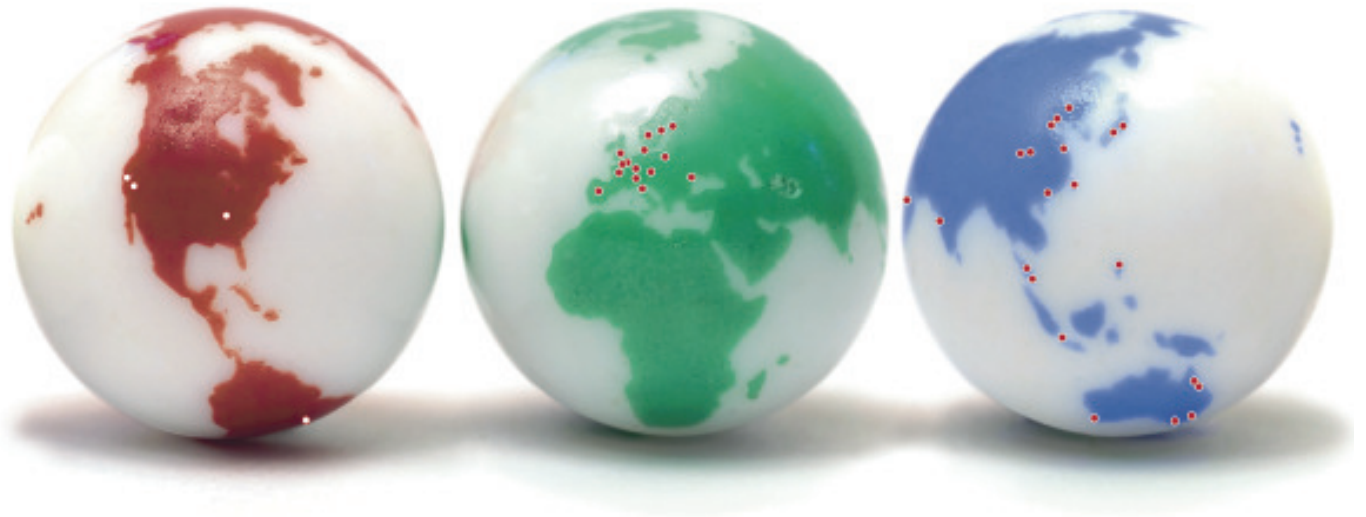
- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.  
Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 18.3 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.

# GF Piping Systems → worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries.

[www.piping.georgfischer.com](http://www.piping.georgfischer.com)

[www.type567.georgfischer.com](http://www.type567.georgfischer.com)



The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Our General Conditions of Sale apply.

## Adding Quality to People's Lives

### Australia

Georg Fischer Pty Ltd  
Unit 1, 100 Belmore Road  
Riverwood NSW 2210 Australia  
Phone +61(0)2/9502 8000  
[australia.ps@georgfischer.com](mailto:australia.ps@georgfischer.com)  
[www.georgfischer.com.au](http://www.georgfischer.com.au)

### Austria

Georg Fischer  
Rohrleitungssysteme GmbH  
3130 Herzogenburg  
Phone +43(0)2782/856 43-0  
[austria.ps@georgfischer.com](mailto:austria.ps@georgfischer.com)  
[www.georgfischer.at](http://www.georgfischer.at)

### Belgium/Luxembourg

Georg Fischer NV/SA  
1070 Bruxelles/Brüssel  
Phone +32(0)2/556 40 20  
[be.ps@georgfischer.com](mailto:be.ps@georgfischer.com)  
[www.georgfischer.be](http://www.georgfischer.be)

### Brazil

Georg Fischer Ltda  
04795-100 São Paulo  
Phone +55(0)11/5687 1311  
[br.ps@georgfischer.com](mailto:br.ps@georgfischer.com)

### China

Georg Fischer  
Piping Systems Ltd Shanghai  
Pudong, Shanghai 201319  
Phone +86(0)21/58 13 33 33  
[china.ps@georgfischer.com](mailto:china.ps@georgfischer.com)  
[www.cn.piping.georgfischer.com](http://www.cn.piping.georgfischer.com)

### Denmark/Iceland

Georg Fischer A/S  
2630 Taastrup  
Phone +45 (0)70 22 19 75  
[info.dk.ps@georgfischer.com](mailto:info.dk.ps@georgfischer.com)  
[www.georgfischer.dk](http://www.georgfischer.dk)

### France

Georg Fischer SAS  
Bâtiment Le Rabelais Paris Nord 2  
22 Avenue des Nations  
BP 88026 Villepinte  
95932 Roissy Charles de Gaulle Cedex  
Phone +33(0)1 41 84 68 84  
[fr.ps@georgfischer.com](mailto:fr.ps@georgfischer.com)  
[www.georgfischer.fr](http://www.georgfischer.fr)

### Germany

Georg Fischer GmbH  
73095 Albershausen  
Phone +49(0)7161/302-0  
[info.de.ps@georgfischer.com](mailto:info.de.ps@georgfischer.com)  
[www.vgd.georgfischer.de](http://www.vgd.georgfischer.de)

### India

Georg Fischer Piping Systems Ltd  
400 076 Mumbai  
Phone +91 224007 2001  
[in.ps@georgfischer.com](mailto:in.ps@georgfischer.com)  
[www.georgfischer.in](http://www.georgfischer.in)

### Italy

Georg Fischer S.p.A.  
20063 Cernusco S/N (MI)  
Phone +3902/921 861  
[it.ps@georgfischer.com](mailto:it.ps@georgfischer.com)  
[www.georgfischer.it](http://www.georgfischer.it)

### Japan

Georg Fischer Ltd  
556-0011 Osaka,  
Phone +81(0)6/6635 2691  
[jp.ps@georgfischer.com](mailto:jp.ps@georgfischer.com)  
[www.georgfischer.jp](http://www.georgfischer.jp)

### Korea

Georg Fischer Piping Systems  
#902 Ace Techno-Tower III  
197-48, Guro-dong, Guro-gu  
Seoul 152-050 Korea  
Phone +82 2 851 3861/3862  
Fax +82 2 851 3844  
[kor.ps@georgfischer.com](mailto:kor.ps@georgfischer.com)

### Malaysia

Georg Fischer (M) Sdn. Bhd.  
47500 Subang Jaya  
Phone +60 (0)3-8024 7879  
[conne.kong@georgfischer.com.my](mailto:conne.kong@georgfischer.com.my)

### Middle East

Georg Fischer Piping Systems  
Dubai, United Arab Emirates  
Phone +971 4 289 41 20  
[gfdubai@emirates.net.ae](mailto:gfdubai@emirates.net.ae)  
[www.piping.georgfischer.com](http://www.piping.georgfischer.com)

### Netherlands

Georg Fischer N.V.  
8161 PA Epe  
Phone +31(0)578/678 222  
[nL.ps@georgfischer.com](mailto:nL.ps@georgfischer.com)  
[www.georgfischer.nl](http://www.georgfischer.nl)

### Norway

Georg Fischer AS  
1351 Rud  
Phone +47(0)67 18 29 00  
[no.ps@georgfischer.com](mailto:no.ps@georgfischer.com)  
[www.georgfischer.no](http://www.georgfischer.no)

### Poland

Georg Fischer Sp. z o.o.  
02-226 Warszawa  
Phone +48(0)22/313 10 50  
[poland.ps@georgfischer.com](mailto:poland.ps@georgfischer.com)  
[www.georgfischer.pl](http://www.georgfischer.pl)

### Romania

Georg Fischer  
Piping Systems Ltd  
020257 Bucharest - Sector 2  
Phone +40(0)21/230 53 80  
[ro.ps@georgfischer.com](mailto:ro.ps@georgfischer.com)

### Russia

Georg Fischer Piping Systems  
Office 14a, 3 Entrance, 9 Floor  
Business Center Parus  
1<sup>st</sup> Tverskaya-Yamskaya Street, 23  
Moscow 125047  
Tel. +7 495 258 60 80  
[ru.ps@georgfischer.com](mailto:ru.ps@georgfischer.com)

### Singapore

Georg Fischer Pte Ltd  
528 872 Singapore  
Phone +65(0)67 47 06 11  
[sgp.ps@georgfischer.com](mailto:sgp.ps@georgfischer.com)  
[www.georgfischer.com.sg](http://www.georgfischer.com.sg)

### Spain/Portugal

Georg Fischer S.A.  
28046 Madrid  
Phone +34(0)91/781 98 90  
[es.ps@georgfischer.com](mailto:es.ps@georgfischer.com)  
[www.georgfischer.es](http://www.georgfischer.es)

### Sweden/Finland

Georg Fischer AB  
12523 Älvsjö-Stockholm  
Phone +46(0)8/506 775 00  
[info.se.ps@georgfischer.com](mailto:info.se.ps@georgfischer.com)  
[www.georgfischer.se](http://www.georgfischer.se)

### Switzerland

Georg Fischer  
Rohrleitungssysteme (Schweiz) AG  
8201 Schaffhausen  
Phone +41(0)52 631 30 26  
[ch.ps@georgfischer.com](mailto:ch.ps@georgfischer.com)  
[www.piping.georgfischer.ch](http://www.piping.georgfischer.ch)

### Taiwan

Georg Fischer Piping Systems  
2F, No. 88, Hsing Te Road  
San Chung City  
Taipei Hsien, Taiwan (R.O.C.)  
Phone +886 2 8512 2822  
Fax +886 2 8512 2823

### United Kingdom/Ireland

Georg Fischer Sales Limited  
Coventry, CV2 2ST  
Phone +44(0)2476 535 535  
[uk.ps@georgfischer.com](mailto:uk.ps@georgfischer.com)  
[www.georgfischer.co.uk](http://www.georgfischer.co.uk)

### USA/Canada/Latin America/Caribbean

Georg Fischer Inc.  
Tustin, CA 92780-7258  
Phone +1(714) 731 88 00  
Toll Free 800/854 40 90  
[us.ps@georgfischer.com](mailto:us.ps@georgfischer.com)  
[www.us.piping.georgfischer.com](http://www.us.piping.georgfischer.com)

### Export

Georg Fischer  
Piping Systems (Switzerland) Ltd.  
8201 Schaffhausen  
Phone +41 (0)52-631 30 26  
Fax +41 (0)52-631 28 93  
[export.ps@georgfischer.com](mailto:export.ps@georgfischer.com)  
[www.piping.georgfischer.ch](http://www.piping.georgfischer.ch)