

- > Port size: G1/2 ... G2
- > High flow rate
- > Optionally air pilot operated
- > High repeatability of switching time
- > Variable valve solenoid combination



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Indirect solenoid operated poppet valve

Operating pressure:

-1 ... 10 bar (-14 ... 145 psi)

Orifice:

15 ... 50 mm

Port size:

G1/2, G3/4, G1, G1 1/2, G2

Flow direction:

Fixed

Mounting position:

Any, but preferably with solenoid vertical

In severe shocks solenoid vertical perpendicular to the axis of oscillation

Ambient/Media temperature:

-10 ... +60°C (+14 ... +140°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Material:

Body: Aluminium
Seals: PUR
Inner parts: POM

Technical data

| Symbol | Port size | | | Orifice (mm) | Pilot supply | Flow (l/min) | Operating pressure | | Pilot pressure | | Weight (kg) | Model *1) |
|--------|-----------|--------|--------|--------------|--------------|--------------|--------------------|------------|----------------|------------|-------------|-----------|
| | 1 | 2 | 3 | | | | (bar) | (psi) | (bar) | (psi) | | |
| | G1/2 | G1/2 | G3/4 | 15 | Internal | 5500 | 2 ... 10 | 29 ... 145 | — | — | 1,3 | 8026570 |
| | G3/4 | G3/4 | G1 | 20 | Internal | 8000 | 2 ... 10 | 29 ... 145 | — | — | 1,5 | 8026670 |
| | G1 | G1 | G1 | 25 | Internal | 9000 | 2 ... 10 | 29 ... 145 | — | — | 1,5 | 8026770 |
| | G1 | G1 1/4 | G1 1/4 | 32 | Internal | 14000 | 2 ... 10 | 29 ... 145 | — | — | 3,0 | 8026870 |
| | G1 1/2 | G1 1/2 | G1 1/2 | 40 | Internal | 21000 | 2 ... 10 | 29 ... 145 | — | — | 3,8 | 8026970 |
| | G2 | G2 | G2 | 50 | Internal | 31000 | 2 ... 10 | 29 ... 145 | — | — | 6,8 | 8027070 |
| | G1/2 | G1/2 | G3/4 | 15 | Internal | 5500 | 2 ... 10 | 29 ... 145 | — | — | 1,3 | 8028570 |
| | G3/4 | G3/4 | G1 | 20 | Internal | 8000 | 2 ... 10 | 29 ... 145 | — | — | 1,5 | 8028670 |
| | G1 | G1 | 1 | 25 | Internal | 9000 | 2 ... 10 | 29 ... 145 | — | — | 1,5 | 8028770 |
| | G1 | G1 1/4 | G1 1/4 | 32 | Internal | 14000 | 2 ... 10 | 29 ... 145 | — | — | 3,0 | 8028870 |
| | G1 1/2 | G1 1/2 | G1 1/2 | 40 | Internal | 21000 | 2 ... 10 | 29 ... 145 | — | — | 3,8 | 8028970 |
| | G2 | G2 | G2 | 50 | Internal | 31000 | 2 ... 10 | 29 ... 145 | — | — | 6,8 | 8029070 |
| | G1/2 | G1 1/2 | G3/4 | 15 | External | 5500 | 0 ... 10 | 0 ... 145 | 2 ... 10 | 29 ... 145 | 1,3 | 8026571 |
| | G3/4 | G3/4 | G1 | 20 | External | 8000 | 0 ... 10 | 0 ... 145 | 2 ... 10 | 29 ... 145 | 1,5 | 8026671 |
| | G1 | G1 | G1 | 25 | External | 9000 | 0 ... 10 | 0 ... 145 | 2 ... 10 | 29 ... 145 | 1,5 | 8026771 |
| | G1 | G1 1/4 | G1 1/4 | 32 | External | 14000 | 0 ... 10 | 0 ... 145 | 2 ... 10 | 29 ... 145 | 3,0 | 8026871 |
| | G1 1/2 | G1 1/2 | G1 1/2 | 40 | External | 21000 | 0 ... 10 | 0 ... 145 | 2 ... 10 | 29 ... 145 | 3,8 | 8026971 |
| | G2 | G2 | G2 | 50 | External | 31000 | 0 ... 10 | 0 ... 145 | 2 ... 10 | 29 ... 145 | 6,8 | 8027071 |
| | G1/2 | G1/2 | G3/4 | 15 | External | 5500 | 2 ... 10 | 29 ... 145 | 2 ... 10 | 29 ... 145 | 1,3 | 8028571 |
| | G3/4 | G3/4 | G1 | 20 | External | 8000 | 2 ... 10 | 29 ... 145 | 2 ... 10 | 29 ... 145 | 1,5 | 8028671 |
| | G1 | G1 | G1 | 25 | External | 9000 | 2 ... 10 | 29 ... 145 | 2 ... 10 | 29 ... 145 | 1,5 | 8028771 |
| | G1 | G1 1/4 | G1 1/4 | 32 | External | 14000 | 2 ... 10 | 29 ... 145 | 2 ... 10 | 29 ... 145 | 3,0 | 8028871 |
| | G1 1/2 | G1 1/2 | G1 1/2 | 40 | External | 21000 | 2 ... 10 | 29 ... 145 | 2 ... 10 | 29 ... 145 | 3,8 | 8028971 |
| | G2 | G2 | G2 | 50 | External | 31000 | 2 ... 10 | 29 ... 145 | 2 ... 10 | 29 ... 145 | 6,8 | 8029071 |

*1) When ordering please indicate solenoid, voltage, current type (frequency).

Models for vacuum

| Symbol | Port size | | | Orifice (mm) | Pilot supply | Flow (l/min) | Operating pressure | | Pilot pressure | | Weight (kg) | Model *1) |
|--------|-----------|--------|--------|--------------|--------------|--------------|--------------------|------------|----------------|------------|-------------|-----------|
| | 1 | 2 | 3 | | | | (bar) | (psi) | (bar) | (psi) | | |
| | G1/2 | G1/2 | G3/4 | 15 | External | 5500 | -1 ... 6 | -14 ... 87 | 4 ... 10 | 58 ... 145 | 1,3 | 8026572 |
| | G3/4 | G3/4 | G1 | 20 | External | 8000 | -1 ... 6 | -14 ... 87 | 4 ... 10 | 58 ... 145 | 1,5 | 8026672 |
| | G1 | G1 | G1 | 25 | External | 9000 | -1 ... 6 | -14 ... 87 | 4 ... 10 | 58 ... 145 | 1,5 | 8026772 |
| | G1 | G1 1/4 | G1 1/4 | 32 | External | 14000 | -1 ... 6 | -14 ... 87 | 4 ... 10 | 58 ... 145 | 3,0 | 8026872 |
| | G1 1/2 | G1 1/2 | G1 1/2 | 40 | External | 21000 | -1 ... 6 | -14 ... 87 | 4 ... 10 | 58 ... 145 | 3,8 | 8026972 |
| | G 2 | G 2 | G 2 | 50 | External | 31000 | -1 ... 6 | -14 ... 87 | 4 ... 10 | 58 ... 145 | 6,8 | 8027072 |

*1) When ordering please indicate solenoid, voltage, current type (frequency).

Solenoids group 16D, standard voltages

| | Power consumption | | Rated current | | Protection class IP/NEMA | Ex-Protection (ATEX-Category) | Temperature Ambient/Media (°C) | Electrical connection | Weight (kg) | Drawing No. | Circuit diagram No. | Model |
|--|-------------------|-----------------|-----------------|------------------|--------------------------|---|---|--|-------------|-------------|---------------------|-------|
| | 24 V d.c. (W) | 230 V a.c. (VA) | 24 V d.c. (m A) | 230 V a.c. (m A) | | | | | | | | |
| | 16,9 | — | 703 | — | IP65 (with connector) | — | -25 ... +60 Media: +80 max | Connector DIN EN 175301-803, form A *1) | 0,26 | 3 | 1 | 0800 |
| | — | 17,3 | — | 75 | IP65 (with connector) | — | -25 ... +60 Media: +80 max | Connector DIN EN 175301-803, form A *1) | 0,35 | 4 | 6 | 3803 |
| | 11,4 | — | 475 | — | IP66 (with cable gland) | II 2 G Ex e mb IIC T4/ T5 Gb II 2 D Ex tb IIIC T130°C Db IP66 | T4: -40 ... +50 T5: -40 ... +40 -40 ... +50 | M20 x 1,5 *1) | 0,5 | 6 | 4 | 4280 |
| | — | 15,2 | — | 66 | IP66 (with cable gland) | II 2 G Ex e mb IIC T4/ T5 Gb II 2 D Ex tb IIIC T130°C Db IP66 | T4: -40 ... +50 T5: -40 ... +40 -40 ... +50 | M20 x 1,5 *1) | 0,5 | 6 | 7 | 4281 |
| | 13,6 | — | 567 | — | 4x | Cl. I, Div. 1, Gr. A - D Cl. II/III, Div. 1, Gr. E - G T3C (160°C) | -20 ... +60 | Flying leads length 460 mm | 0,5 | 8 | 1 | 3826 |
| | — | 15,7 | — | 68 | 4x | Cl. I, Div. 1, Gr. A - D Cl. II/III, Div. 1, Gr. E - G T3C (160°C) | -20 ... +60 | Flying leads length 460 mm | 0,5 | 8 | 5 | 3827 |

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.

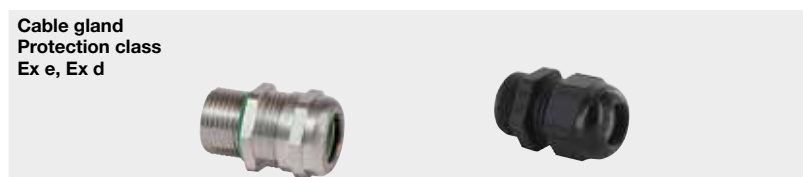
*1) Connector/cable gland is not scope of delivery, see table »Accessories«

Attention: The protection class for coil series 46xx and 48xx is determined by the choice of cable gland.

Example: if an ATEX-certified cable gland is used that has Ex d type of protection, the solenoid will have the protection class Ex d mb; if a cable gland with Ex e type of protection is used, the solenoid will have protection class Ex e mb.

Accessories

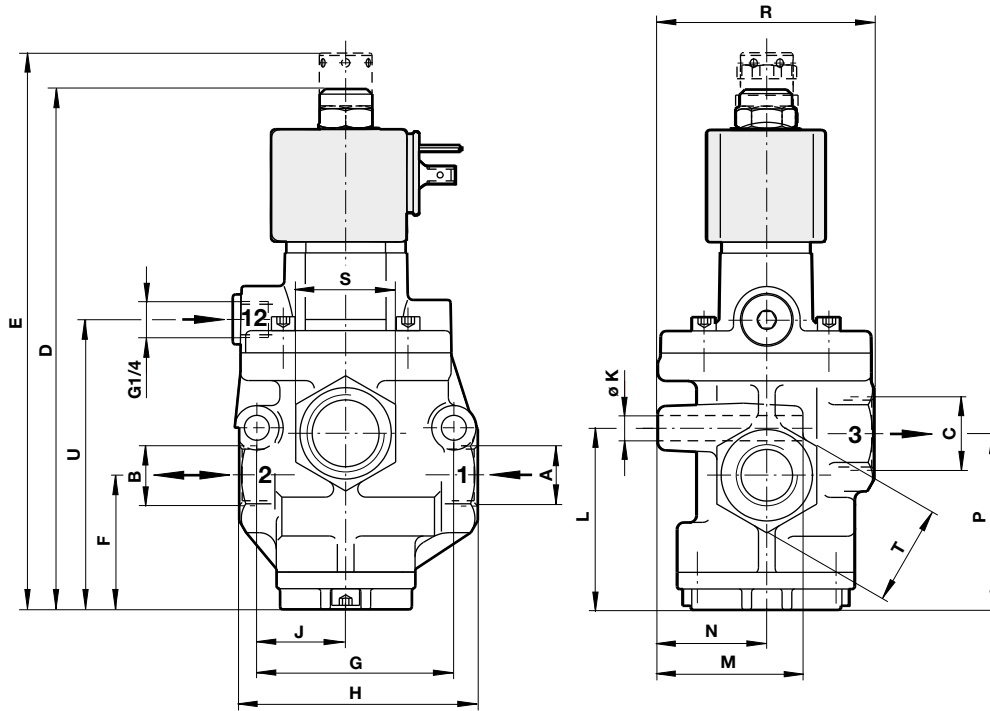
Electrical connection



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| Thread | Cable Ø (mm) | Materials | Protection class (ATEX) | Model |
|-----------|--------------|---------------------------------|-------------------------|---------|
| M20 x 1,5 | 5 ... 8 | Nickel plated brass | II 2 GD Ex e | 0588819 |
| M20 x 1,5 | 10 ... 14 | Nickel plated brass | II 2 GD Ex d | 0588851 |
| M20 x 1,5 | 9 ... 13 | Stainless steel 1.4571 (316 Ti) | II 2 GD Ex e | 0589385 |
| M20 x 1,5 | 7 ... 12 | Stainless steel 1.4404 (316 L) | II 2 GD Ex d | 0589395 |
| M20 x 1,5 | 10 ... 14 | Stainless steel 1.4404 (316 L) | II 2 GD Ex d | 0589387 |
| M20 x 1,5 | 5 ... 9 | Plastic (PA) | — | 0110854 |
| M20 x 1,5 | 6 ... 12 | Plastic (PA) | — | 0110855 |

Drawing - Valve



Dimensions in mm
Projection/First angle

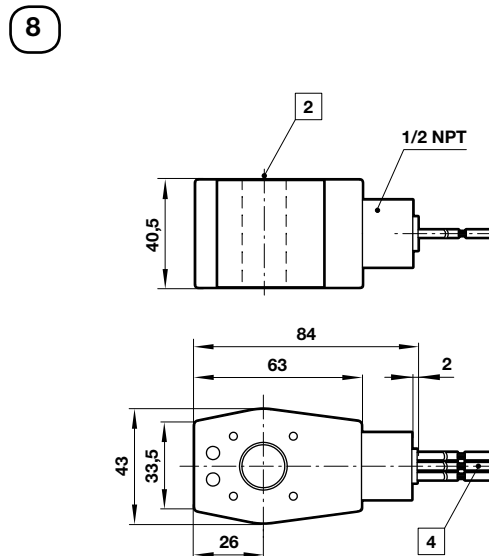
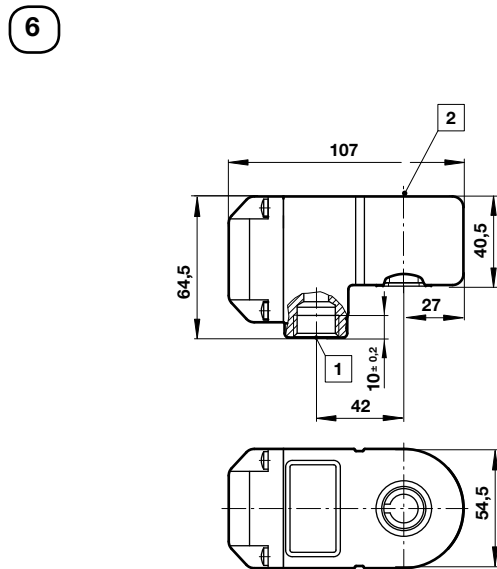
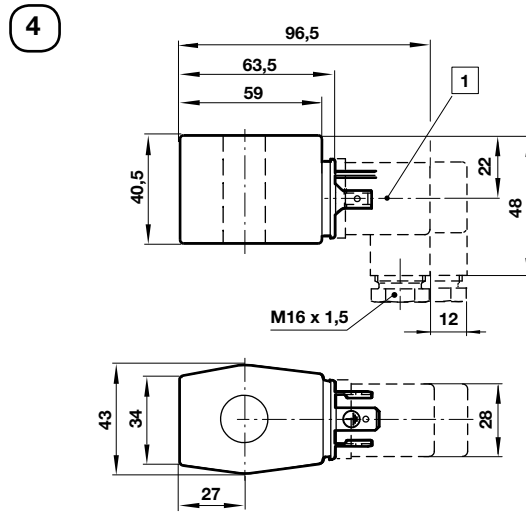
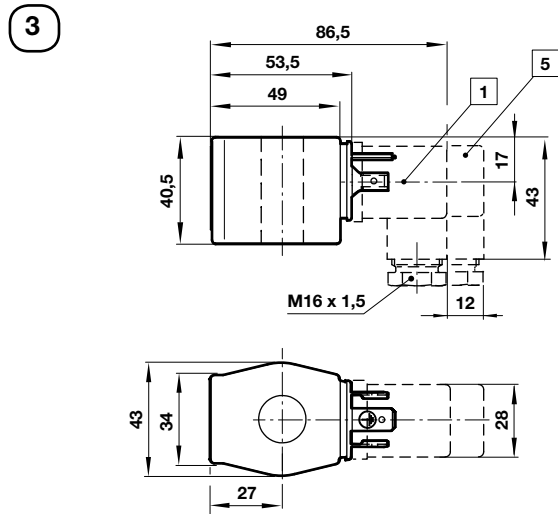


1 Solenoid can be indexed by 4 x 90°

| A | B | C | D | E | F | G | H | J | Ø K | L | M | P | R | S | T | U | Model |
|--------|--------|--------|-------|-------|------|------|-----|------|-----|-------|----|-------|-----|----|----|-------|--------|
| G1/2 | G1/2 | G3/4 | 187,5 | — | 48 | 71 | 86 | 32 | 9 | 65,5 | 52 | 63,5 | 78 | 36 | 36 | 104,5 | 802657 |
| G3/4 | G3/4 | G1 | 197,5 | — | 51,5 | 82,5 | 112 | 39 | 9 | 74,5 | 54 | 73 | 92 | 46 | 46 | 114,5 | 802667 |
| G1 | G1 | G1 | 197,5 | — | 51,5 | 82,5 | 112 | 39 | 9 | 74,5 | 54 | 73 | 92 | 46 | 46 | 114,5 | 802677 |
| G1 | G1 1/4 | G1 1/4 | 239 | — | 70 | 104 | 142 | 48 | 11 | 108 | 64 | 98 | 108 | 60 | 60 | 148 | 802687 |
| G1 1/2 | G1 1/2 | G1 1/2 | 265 | — | 85 | 118 | 164 | 50,5 | 14 | 121,5 | 70 | 115,5 | 123 | 60 | 68 | 168 | 802697 |
| G2 | G2 | G2 | 304 | — | 98 | 148 | 200 | 66 | 18 | 144 | 85 | 137 | 153 | 90 | 90 | 204 | 802707 |
| G1/2 | G1/2 | G3/4 | — | 200,5 | 48 | 71 | 86 | 32 | 9 | 65,5 | 52 | 63,5 | 78 | 36 | 36 | 104,5 | 802857 |
| G3/4 | G3/4 | G1 | — | 210,5 | 51,5 | 82,5 | 112 | 39 | 9 | 74,5 | 54 | 73 | 92 | 46 | 46 | 114,5 | 802867 |
| G1 | G1 | G1 | — | 210,5 | 51,5 | 82,5 | 112 | 39 | 9 | 74,5 | 54 | 73 | 92 | 46 | 46 | 114,5 | 802877 |
| G1 | G1 1/4 | G1 1/4 | — | 252 | 70 | 104 | 142 | 48 | 11 | 108 | 64 | 98 | 108 | 60 | 60 | 148 | 802887 |
| G1 1/2 | G1 1/2 | G1 1/2 | — | 279 | 85 | 118 | 164 | 50,5 | 14 | 121,5 | 70 | 115,5 | 123 | 60 | 68 | 168 | 802897 |
| G2 | G2 | G2 | — | 317 | 98 | 148 | 200 | 66 | 18 | 144 | 85 | 137 | 153 | 90 | 90 | 204 | 802907 |

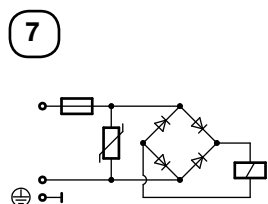
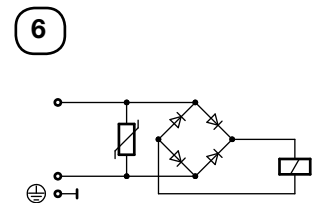
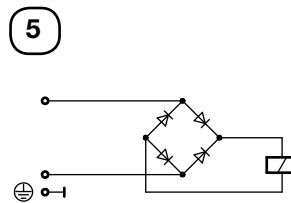
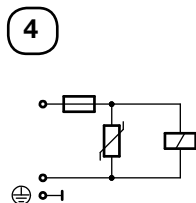
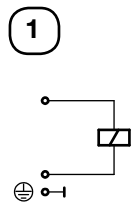
Drawings - Solenoids

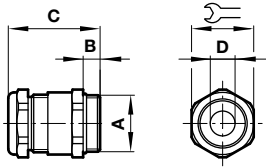
Dimensions in mm
Projection/First angle




- 1 Connector can be indexed by 4x90°
- 2 Ø 16 or 13 (with spacer tube)
- 4 Flying leads AWG 18 (460 mm long)

Circuit diagrams



Cable gland


| A | B | C | ø D |  | Model |
|-----------|-----|------|-----------|---|---------|
| M20 x 1,5 | 9 | 36 | 5 ... 8 | 22 | 0588819 |
| M20 x 1,5 | 6,5 | 27,5 | 9 ... 13 | 22 | 0589385 |
| M20 x 1,5 | 14 | 39 | 10 ... 14 | 24 | 0588851 |
| M20 x 1,5 | 14 | 39 | 7 ... 12 | 24 | 0589395 |
| M20 x 1,5 | 10 | 34 | 10 ... 14 | 24 | 0589387 |
| M20 x 1,5 | 9 | 36 | 5 ... 9 | 24 | 0110854 |
| M20 x 1,5 | 9 | 36 | 6 ... 12 | 24 | 0110855 |

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Norgren GmbH.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.