

83770

2/2-way piston valves

- > Port size: DN 8, G1/4 ... 1/2
- > High pressure solenoid valves
- > Solenoid interchangeable without tools (*Click-on*[®])
- > Further customized solutions available upon request, e.g. valve with integrated check valve
- > International approvals



Technical features

Medium:

For compressed natural gas (CNG), on request also for water

Switching function:

Normally closed

Operation:

Indirectly solenoid actuated

Mounting position:

Optional, preferably solenoid vertical on top

Flow direction:

Determined

Port size:

G1/4, G3/8, G1/2

Operating pressure:

10 ... 320 bar (145 ... 4641 psi)

Leakage:

Internal Leakage acc. to DIN EN 12266-1 Leakage "C"

External Leakage acc. to DIN EN 12266-1 Leakage "A"

Fluid temperature:

Solenoid 984x: -20 ... +60°C

(-4 ... +140°F)

Solenoid 6126: -20 ... +60°C

(-4 ... +140°F)

Solenoid 428x: -40 ... +50°C

(-40 ... +122°F)

Solenoid 468x: -40 ... +50°C

(-40 ... +122°F)

Solenoid 382x: -20 ... +60°C

(-4 ... +140°F)

Ambient temperature:

Solenoid 984x: -20 ... +50°C

(-4 ... +122°F)

Solenoid 6126: -20 ... +40°C

(-4 ... +104°F)

Solenoid 428x: -40 ... +50°C

(-40 ... +122°F) T4; T5 see page 2

Solenoid 468x: -40 ... +50°C

(-40 ... +122°F) T4; T5 see page 2

Solenoid 382x: -20 ... +60°C

(-4 ... +140°F)

Material:

Body: Brass

Seat seal: Polymer

Internal parts: Brass,

Stainless steel, Polymer

Installation of a 40 µm filter in front of the valve is required!

Technical data – standard models

| Port size | orifice (mm) | Flow kv value *1) (m³/h) | Operating pressure *2) *3) | | Weight (kg) | Model Solenoid in V d.c./a.c. |
|-----------|--------------|--------------------------|----------------------------|--------------|-------------|-------------------------------|
| | | | (bar) | (psi) | | |
| G1/4 | 8 | 1,2 | 10 ... 320 | 145 ... 4641 | 2,2 | 8590371.984x.xxxxx |
| | | | | | 2,3 | 8590371.6126.xxxxx |
| | | | | | - | 8590371.428x.xxxxx |
| | | | | | - | 8590371.468x.xxxxx |
| | | | | | - | 8590371.382x.xxxxx |
| G3/8 | 8 | 1,2 | 10 ... 320 | 145 ... 4641 | 2,2 | 8590185.984x.xxxxx |
| G3/8 | 8 | 1,2 | 10 ... 320 | 145 ... 4641 | 2,3 | 8590178.6126.xxxxx |
| | | | | | 2,3 | 8590178.428x.xxxxx |
| | | | | | 2,5 | 8590178.468x.xxxxx |
| | | | | | 2,2 | 8590178.382x.xxxxx |
| G1/2 | 8 | 1,2 | 10 ... 320 | 145 ... 4641 | 2,2 | 8590337.984x.xxxxx |
| | | | | | 2,3 | 8590337.6126.xxxxx |
| | | | | | 2,5 | 8590337.428x.xxxxx |
| | | | | | - | 8590337.468x.xxxxx |
| | | | | | - | 8590337.382x.xxxxx |

xxxxx Please insert voltage and frequency codes

*1) Cv-value (US) = kv value x 1.2

*2) Static test pressure PT = 480 bar

*3) Max. Operating pressure = 320 bar

According to PED 2014/68/EU and ATEX 2014/34/EU!

Option selector

| Port size | Substitute |
|-----------|------------|
| 1/4 | 371 |
| 3/8 | 185 *4) |
| 1/2 | 337 |

*4) Only with Solenoid 9841.xxxxx

8590★★★★★★★★

| Frequency | Substitute |
|---|------------|
| See table frequency codes | xx |
| Voltage | Substitute |
| See voltage codes | xxx |
| Solenoid options | Substitute |
| Solenoid with 10 m cable ends Protection class according to - II 2 G Ex mb IIC T4 Gb - II 2 D Ex mb tb IIIC T130°C Db | 9845 |
| For d.c. with 1/2 - 14 NPT female thread and 460 mm flying leads Protection class acc. to ANSI/NEMA USA: FM approved (File-No. 2Z2A6.AE) Canada: CSA certified (File-No. LR 57643-6) Solenoids in temperature class T3C (160°C) are useable in Ex-areas (see table Ex-areas) | 3826 |
| For a.c. with integrated rectifier with 1/2 - 14 NPT female thread and 460 mm flying leads Protection class acc. to ANSI/NEMA USA: FM approved (File-No. 2Z2A6.AE) Canada: CSA certified (File-No. LR 57643-6) Solenoids in temperature class T3C (160°C) are useable in Ex-areas (see table Ex-areas) | 3827 |
| Solenoid with terminal box cable Protection class according to - II 2 G Ex e mb IIC T4/T5 Gb - II 2 D Ex tb IIIC T 130°C Db IP66 Ambient temperature: T4 -40 ... +50°C (-40 ... +122°F) T5 -40 ... +40°C (-40 ... +104°F) No screwed cable gland included in scope of delivery! Explosion protection ensured only with Ex screwed cable gland made of plastic! Cable gland limits maximum & minimum ambient temperature. | 428x |
| Solenoid with terminal box cable gland M20 x 1,5 (cabel clamp ø 10 ... 14 mm) 1/2 ... 1/4 NPT (cabel clamp ø 7,5 ... 11,9 mm) Protection class according to - II 2 G Ex d mb IIC T4/T5 Gb - II 2 D Ex tb IIIC T 130°C Ambient temperature: T4 -40 ... +50°C (-40 ... +122°F) T5 -40 ... +40°C (-40 ... +104°F) | 468x |

Acc. to ATEX 2014/34/EU
Actuation solenoids – Technical data and connection type

| Solenoid | Code Voltage | Code Frequency | Voltage | Frequency | Power consumption | | Connection |
|----------|--------------|----------------|------------|--------------|-------------------|---------|---|
| | | | | | Inrush | Holding | |
| 3826 | 024 | 00 | 24 V d.c. | - | 13,6 VA | 13,6 VA | 1/2" Conduit 3 connection strands, length 460 mm cable gland 1/2-14 NPT |
| 3827 | 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 15,4 VA | 15,4 VA | 1/2" Conduit 3 connection strands, length 460 mm cable gland 1/2-14 NPT |
| 4280 | 024 | 00 | 24 V d.c. | - | 11,4 W | 11,4 W | cable gland M20 x 1,5 Note: A cable gland made from plastic must be chosen during order. |
| 4281 | 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 15,2 VA | 15,2 VA | cable gland M20 x 1,5 Note: A cable gland made from plastic must be chosen during order. |
| 4680 | 024 | 00 | 24 V d.c. | - | 11,4 W | 11,4 W | connection housing for cables 7,5-11,9 mm cable gland 1/2-14 NPT |
| 4681 | 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 15,2 VA | 15,2 VA | connection housing for cables 7,5-11,9 mm cable gland 1/2-14 NPT |
| 4682 | 024 | 00 | 24 V d.c. | - | 11,4 W | 11,4 W | connection housing for cables 10-14 mm cable gland M20 x 1,5 |
| 4683 | 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 15,2 VA | 15,2 VA | connection housing for cables 10-14 mm cable gland M20 x 1,5 |
| 6126 | 024 | 00 | 24 V d.c. | - | 14 W | 14 W | connection housing for cables 7-9 mm cable gland M16 x 1,5 |
| 6126 | 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 16 VA | 16 VA | connection housing for cables 7-9 mm cable gland M16 x 1,5 |
| 9841 | 024 | 00 | 24 V d.c. | - | 10,1 W | 10,1 W | with 3 m connection cable |
| 9844 | 024 | 00 | 24 V d.c. | - | 10,1 W | 10,1 W | with 5 m connection cable |
| 9845 | 024 | 00 | 24 V d.c. | - | 10,1 W | 10,1 W | with 10 m connection cable |
| 9845 | 230 | 59 | 230 V a.c. | 50 ... 60 Hz | 9,2 VA | 9,2 VA | with 10 m connection cable |

Electrical details for all solenoid systems

| | |
|-------------------------|---------------|
| Voltage range | ±10% |
| Duty cycle | 100% ED |
| Protection class | EN 60529 IP65 |

According to DIN VDE 0580 at a solenoid temperature of +20°C.

At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

ATEX-Identification for solenoid systems

| Solenoid | ATEX category | EX-protection class |
|----------|-------------------------|--|
| 428x | II 2G II 2D | Ex eb mb IIC T4/T5 Gb IP66 Ex tb IIIC T130°C Db |
| 468x | II 2G II 2G II 2D | Ex db mb IIC T4/T5 Gb IP66 / Port size IP00 Ex eb mb IIC T4/T5 Gb Ex tb IIIC T130°C Db |
| 984x | II 2G II 2D | Ex mb IIC T4 Gb IP65 Ex mb tb IIIC T130°C Db |
| 6126 | II 2G II 2D | Ex eb mb IIC T4 Gb IP66 Ex mb tb IIIB T125°C Db |

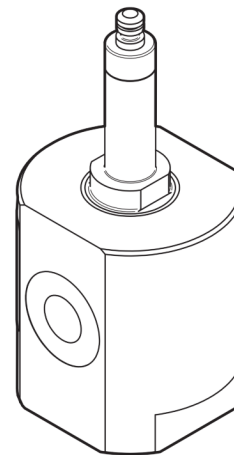
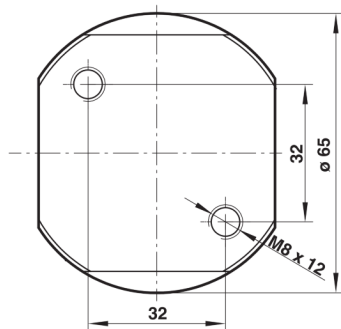
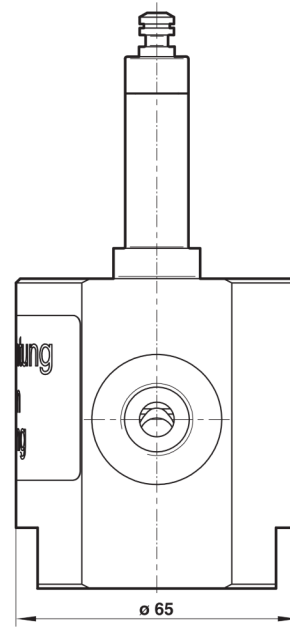
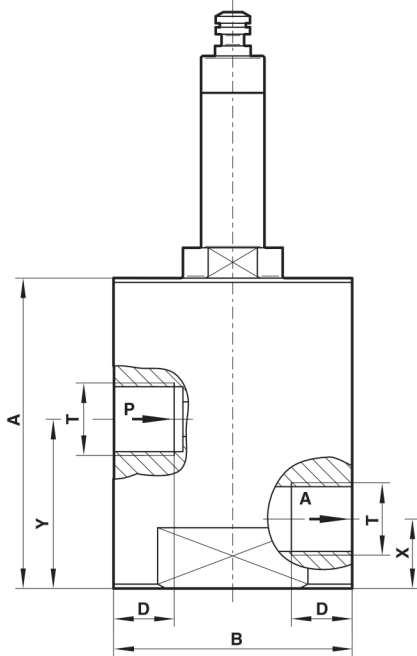
Solenoid systems with FM approval (USA)

| Magnet | ANSI/NEMA | FM-Zulassung |
|--------|-----------------------|---------------------------------|
| 382x | 1,3,4,4X,6,6P,7 und 9 | FM approved (File Nr. 2Z2A6.AE) |

Admissible Ex areas (USA)

| Solenoid 382x | Class | Divison | Groups |
|-----------------|-------|---------|---------|
| Gases + fumes | I | 1 and 2 | A ... D |
| Dusts | II | 1 and 2 | E ... G |
| Fibres + fluffs | III | 1 and 2 | - |

Dimensions

 Dimensions in mm
 Projection/First angle


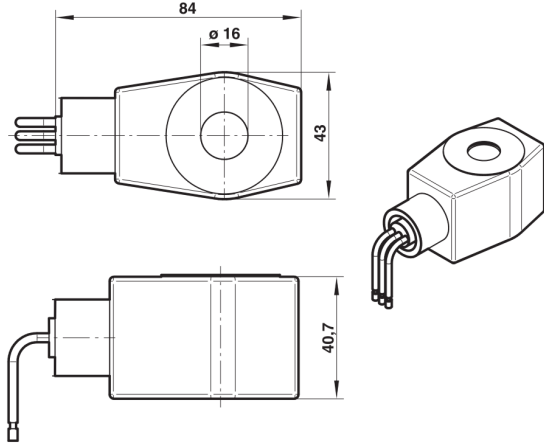
| Port size T | A (Block size) | B (Footage) | D (Depth of thread) | X (Distance from the bottom port A) | Y (Distance from the bottom port P) | Model |
|-------------|-------------------|----------------|------------------------|---|---|--------------------|
| G1/4 | 74,5 | 55 | 13 | 16 | 42 | 8590371.xxxx.xxxxx |
| G3/8 | 71,5 | 55 | 14 | 16 | 39 | 8590178.6126.xxxxx |
| G3/8 | 71,5 | 55 | 14 | 16 | 39 | 8590185.9841.xxxxx |
| G1/2 | 74,5 | 57 | 15 | 16 | 42 | 8590337.xxxx.xxxxx |

Dimensions Solenoids

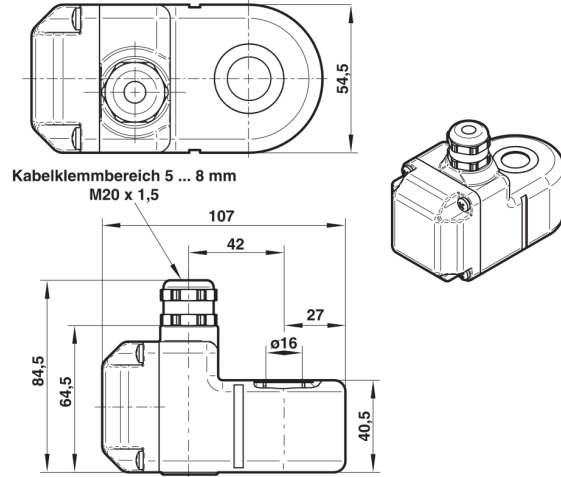
Dimensions in mm
Projection/First angle



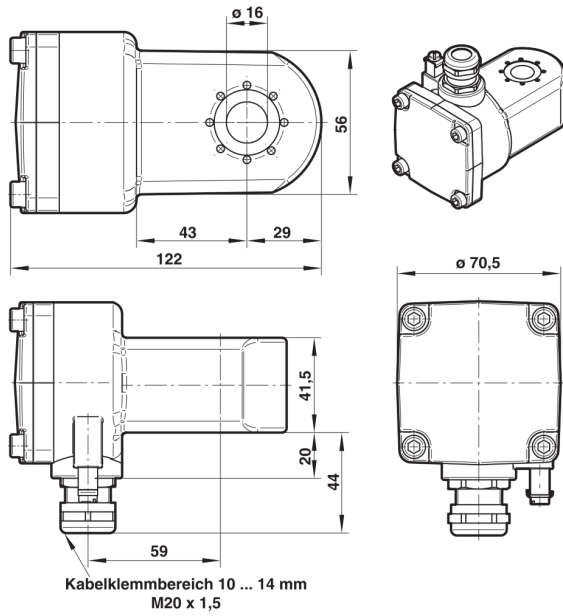
38xx



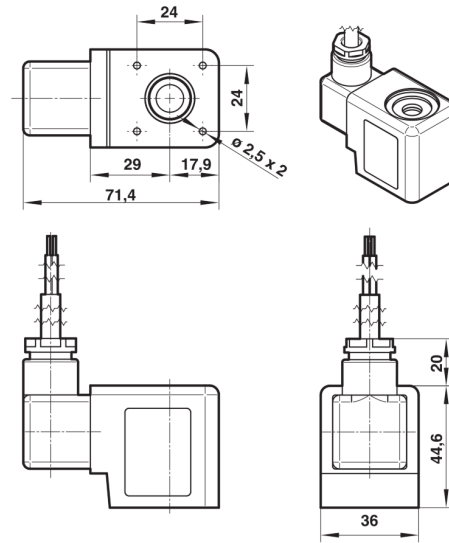
42xx



46xx



98xx



6126

