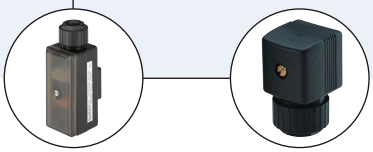
# Plunger valve 2/2 way direct-acting

- Direct-acting and compact valve up to diameter of DN 6.0
- Vibration-proof, bolted coil system
- Increased leak-tightness with welded plunger guide tube
- Explosion proof versions
- Energy-saving pulse versions

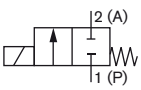
Type 6013 can be combined with…



**Type 1078** **Type 2508**

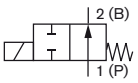
Valve 6013 is a direct-acting plunger valve. The stopper and plunger guide tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. A Bürkert-specific flange design (SFB) enables space-saving arrangement of valves on a manifold. The coils are moulded with polyamide or with chemically resistant epoxy. Pulse coils and 'Kick and Drop' electronics are available for overexcitation (plug 2511) for the reduction of electrical power consumption during operation. Optional manual actuation enables quick commissioning and easy maintenance.
In combination with a plug in accordance with DIN EN 17301-803 Form A, the valves satisfy protection class IP65. Stainless steel valves satisfy NEMA 4X.

**Circuit Function A**




2/2 way direct-acting solenoid valve, normally closed

**Circuit Function B**




2/2 way direct-acting solenoid valve, normally open

| Technical data | | |
|---|---|---|
| **Body material** | Type 6013<br>Type 6013 A | Brass, stainless steel 1.4305<br>Brass, stainless steel 1.4305 |
| **Seal material** | | FKM, PTFE/Graphite (EPDM on request) |
| **Analysis version**<br>Type 6013 A | | Silicon, oil and fat free version<br>Tightness < 10 - 4 mbar l/s |
| **Limit value for residual carbon**<br>Type 6013 A | | <br>< 0.2 mg/dm² |
| **Medium**<br>Type 6013<br><br>Type 6013 A | | • Technical vacuum<br>• Neutral gases and liquids (e.g. compressed air, water, hydraulic oil)<br>• Neutral medium, which does not attack the body and seal materials (see chemical resistance chart) |
| **Medium temperature**<br>FKM<br>PTFE/Graphite<br>FKM, Circuit function B | | <br>- 10 to + 100 °C (PA coil) till 120 °C (Epoxy coil)<br>- 40 to + 180 °C (see chemical resistance chart)<br>- 10 to 100 °C (AC) - 10 to 120 °C (DC) |
| **Ambient temperature** | | Max. + 55 °C |
| **Viscosity** | | Max. 21 mm²/s |
| **Port connection** | Type 6013<br>Type 6013 A | G ⅛, G ¼, G ⅜, sub-base (SFB)<br>G ⅛, G ¼ |
| **Operating voltage** | Type 6013<br>Type 6013 A | 24 V DC, 24 V/50 Hz, 230 V/50 Hz<br>24 V DC, 230 V/50 Hz (other voltages on request) |
| **Voltage tolerance** | | ± 10 % |
| **Duty cycle/single valve**<br>With block assembly on manifold | | 100 % continuous rating<br>Intermittent operation 60 % (30 min) or with 5 W coil on request |
| **Electrical connection** | | Tag connector acc. to DIN EN 175301-803 Form A (previously DIN 43650) for cable plug Type 2508 (see accessories)<br>ATEX/IECEx version with 3 m moulded cable |
| **Installation** | | As required, preferably with actuator upright |
| **Assembly** | | No oils, fats or silicone to be used during installation |
| **Protection class** | | IP65 with cable plug, ATEX/IECEx junction box version and cable connection version |
| **Coil insulation class** | | Polyamide class B<br>Epoxy class H |

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Technical data, (continued)

### Circuit function A

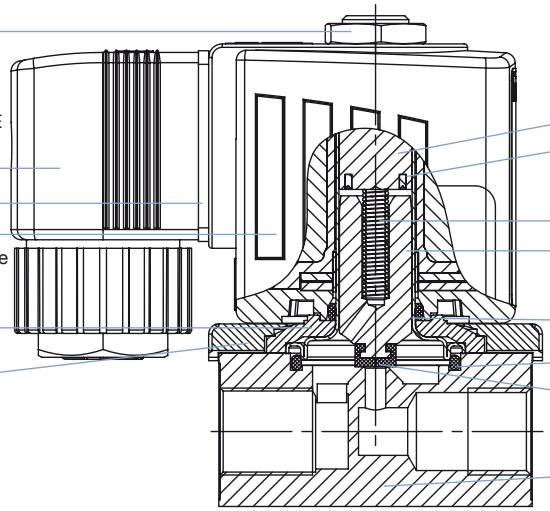
| Orifice [mm] | Port connection | $K_V$ value water [m³/h] | Weight [g] | Power consumption[1] [W] | Electr. power Inrush (AC) | Electr. power Hold (AC) | Coil size | Response times opening [ms] | Response times closed [ms] |
|---|---|---|---|---|---|---|---|---|---|
| 2.0 | G ⅛ | 0.12 | 325 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 2.0 | G ¼ | 0.12 | 465 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 2.0 | sub-base | 0.12 | 290 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 2.5 | G ⅛ | 0.16 | 325 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 2.5 | G ¼ | 0.16 | 465 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 3.0 | G ⅛ | 0.23 | 325 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 3.0 | G ¼ | 0.23 | 465 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 3.0 | G ⅜ | 0.23 | 550 | 10 W AC or 10 W DC (11) | 30 VA | 22 VA | 6 (40 mm) | 20 | 30 |
| 4.0 | G ¼ | 0.30 | 465 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 4.0 | G ⅜ | 0.30 | 550 | 10 W AC or 10 W DC (11) | 30 VA | 22 VA | 6 (40 mm) | 20 | 30 |
| 6.0 | G ¼ | 0.55 | 465 | 8 W AC or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 6.0 | G ⅜ | 0.55 | 550 | 10 W AC or 10 W DC (11) | 30 VA | 22 VA | 6 (40 mm) | 20 | 30 |

### Circuit function B

| Orifice [mm] | Port connection | $K_V$ value water [m³/h] | Weight [g] | Power consumption[1] [W] | Electr. power Inrush (AC) | Electr. power Hold (AC) | Coil size | Response times opening [ms] | Response times closed [ms] |
|---|---|---|---|---|---|---|---|---|---|
| 2.00 | G ⅛ | 0.12 | 325 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 2.00 | G ¼ | 0.12 | 465 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 2.00 | sub-base | 0.12 | 290 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 3.00 | G ⅛ | 0.23 | 325 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 3.00 | G ¼ | 0.23 | 465 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 3.00 | sub-base | 0.23 | 290 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 4.00 | G ¼ | 0.3 | 465 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |
| 6.00 | G ¼ | 0.55 | 465 | 7 W(AC) or 8 W DC (9) | 24 VA | 17 VA | 5 (32 mm) | 20 | 30 |

[1] Values in brackets at coil temperature 20 °C

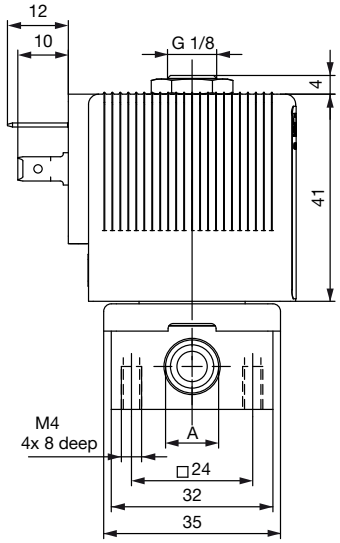
## Materials

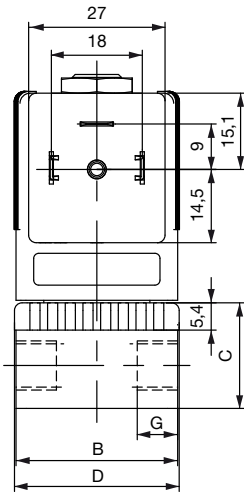


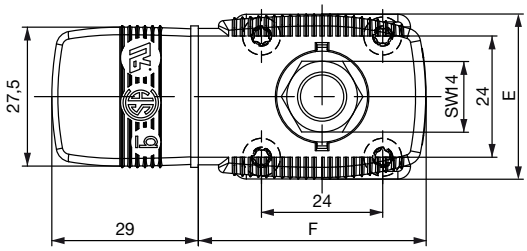

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Dimensions [mm]

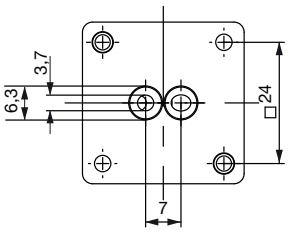
**View without cable plug**



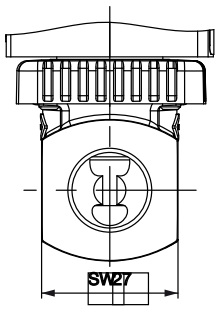



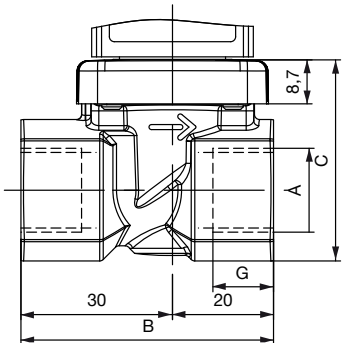



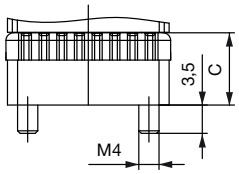

**Sub-base version (SFB)**
underside view




**G ⅜ connection**




| Port connection | Body dimensions [mm] A | B | C | D | G |
|---|---|---|---|---|---|
| G ⅛ | G ⅛ | 32 | 20.8 | 32.6 | 8 |
| G ¼ | G ¼ | 46 | 26.8 | 49 | 12 |
| G ⅜ | G ⅜ | 50 | 39.8 | 49 | 12 |
| Sub-base (SFB) | – | 32 | 14.3 | 32.6 | – |

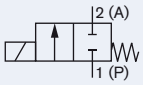
| Coil width E [mm] | Coil depth F [mm] |
|---|---|
| 32 (8 W) | 45 (8 W) |
| 32 (8 W) | 45 (8 W) |
| 40 (10 W) | 51 (10 W) |
| 32 (8 W) | 45 (8 W) |

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Ordering chart for valves (other versions on request)

### 6013 Normally closed valve with FKM seal, brass or stainless steel body (class B)

Delivered without cable plug (see accessories)

| Circuit function | Orifice [mm] | Port connection | $K_V$ value water [$m^3/h$] [1] | Coil power [W] | Pressure range [bar] [2] | Voltage/ Frequency [V/Hz] | Article no. brass body FKM Seal | Article no. Stainless steel body, FKM seal |
|---|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 2.0 | G ⅛ | 0.12 | 8 | 0 - 12 | 024/DC | 134237 | 134233 |
| | | | | | 0 - 25 | 024/50 | 132865 | 134234 |
| | | | | | 0 - 25 | 230/50 | 134239 | 134236 |
| | | G ¼ | 0.12 | 8 | 0 - 12 | 024/DC | 137537 | 137533 |
| | | | | | 0 - 25 | 024/50 | 137538 | 137534 |
| | | | | | 0 - 25 | 230/50 | 137540 | 137536 |
| | | sub-base (SFB) | 0.12 | 8 | 0 - 12 | 024/DC | 134244 | – |
| | | | | | 0 - 25 | 024/50 | 134245 | – |
| | | | | | 0 - 25 | 230/50 | 134247 | – |
| | 2.5 | G ⅛ | 0.16 | 8 | 0 - 10 | 024/DC | 134240 | – |
| | | | | | 0 - 16 | 024/50 | 134241 | – |
| | | | | | 0 - 16 | 230/50 | 134243 | – |
| | 3.0 | G ⅛ | 0.23 | 8 | 0 - 6 | 024/DC | 126091 | 126078 |
| | | | | | 0 - 10 | 024/50 | 126092 | 126079 |
| | | | | | 0 - 10 | 230/50 | 126094 | 126081 |
| | | G ¼ | 0.23 | 8 | 0 - 6 | 024/DC | 125301 | 125317 |
| | | | | | 0 -10 | 024/50 | 125302 | 126082 |
| | | | | | 0 - 10 | 230/50 | 125304 | 126084 |
| | | G ⅜ | 0.23 | 10 | 0 – 8 | 024/DC | 134248 | – |
| | | | | | 0 – 14 | 024/50 | 134249 | – |
| | | | | | 0 – 14 | 230/50 | 134251 | – |
| | 4.0 | G ¼ | 0.30 | 8 | 0 - 1.5 | 024/DC | 125306 | 125318 |
| | | | | | 0 - 4 | 024/50 | 125307 | 125319 |
| | | | | | 0 - 4 | 230/50 | 125309 | 125320 |
| | | G ⅜ | 0.30 | 10 | 0 – 2.5 | 024/DC | 134252 | – |
| | | | | | 0 – 6 | 024/50 | 134253 | – |
| | | | | | 0 – 6 | 230/50 | 134255 | – |
| | 6.0 | G ¼ | 0.55 | 8 | 0 - 0.5 | 024/DC | 125311 | 126086 |
| | | | | | 0 - 1.5 | 024/50 | 125312 | 126087 |
| | | | | | 0 - 1.5 | 230/50 | 125314 | 126089 |
| | | G ⅜ | 0.55 | 10 | 0 – 0.75 | 024/DC | 134256 | – |
| | | | | | 0 – 2.5 | 024/50 | 134257 | – |
| | | | | | 0 – 2.5 | 230/50 | 134259 | – |

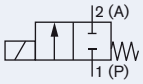
[1] Measured at +20 °C, 1 bar[2] pressure at valve inlet and free outlet..
[2] Measured as overpressure to the atmospheric pressure

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Ordering chart for valves (continued)

### 6013 Normally closed valve for high temp. applications (-40 °C to +180 °C) PTFE seat seal, brass body (class H)

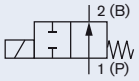
Delivered without cable plug (see accessories)

| Circuit function | Orifice [mm] | Port connection | $K_v$ value water [$m^3/h$] [1] | Coil power [W] | Pressure range [bar] [2] | Voltage/ Frequency [V/Hz] | Article no. |
|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 2.0 | G ¼ | 0.12 | 8 | 0 – 12 | 024/DC | 136015 |
| | | | | | 0 – 25 | 024/50 | 136016 |
| | | | | | 0 – 25 | 230/50 | 136018 |
| | 3.0 | G ¼ | 0.23 | 10 | 0 – 6 | 024/DC | 136019 |
| | | | | | 0 – 10 | 024/50 | 136020 |
| | | | | | 0 – 10 | 230/50 | 136022 |
| | | G ⅜ | 0.23 | 10 | 0 – 8 | 024/DC | 136023 |
| | | | | | 0 – 14 | 024/50 | 136024 |
| | | | | | 0 – 14 | 230/50 | 136026 |

[1] Measured at +20 °C, 1 bar[2] pressure at valve inlet and free outlet.
[2] Measured as overpressure to the atmospheric pressure.

### 6013 Normally open valve with FKM seal, brass body (class H)

Delivered without cable plug (see accessories)

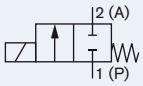
| Circuit function | Orifice [mm] | Port connection | $K_v$ value water [$m^3/h$] [1] | Pressure range [bar] [2] | Coil power [W] | Voltage/ Frequency [V/Hz] | Article no. |
|---|---|---|---|---|---|---|---|
| **B** 2/2 way valve NO   | 2.0 | G ⅛ | 0.12 | 0-16 | 8 | 24/DC | 213543 |
| | | | | | 7 | 230/50 | 213550 |
| | 3.0 | G ⅛ | 0.23 | 0-8 | 8 | 24/DC | 213545 |
| | | | | | 7 | 230/50 | 213551 |
| | | G ¼ | 0.23 | 0-8 | 8 | 24/DC | 213546 |
| | | | | | 7 | 230/50 | 213552 |
| | 4.0 | G ¼ | 0.3 | 0-4 | 8 | 024/DC | 213548 |
| | | | | | 7 | 230/50 | 213553 |
| | 6.0 | G ¼ | 0.55 | 0-2 | 8 | 024/DC | 213549 |
| | | | | | 7 | 230/50 | 213554 |

[1] Measured at +20 °C, 1 bar[2] pressure at valve inlet and free outlet..
[2] Measured as overpressure to the atmospheric pressure

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Ordering chart - Standard temperature version for DC power supply, impulse version

### 6013 Impulse valves, seal material FKM (class H)

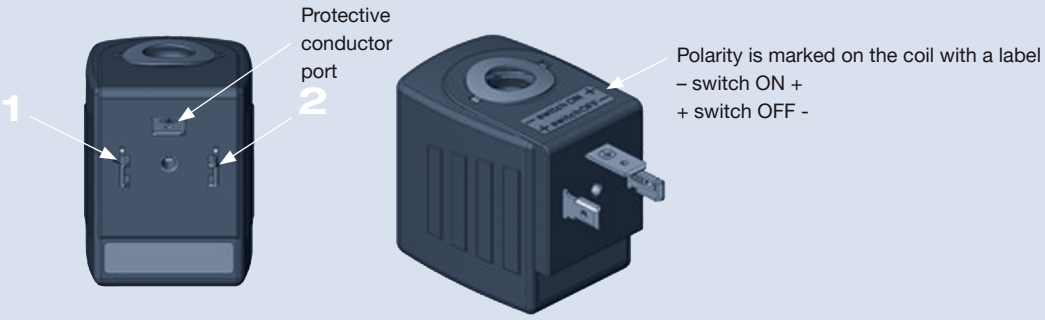
| Circuit function | Port connection | Orifice [mm] | $K_V$ value water [m³/h] [1] | Pressure range [bar] [2] | Power consumption DC (hot/cold coil) [W] | Article no. per voltage [V] 012/DC | 024/DC |
|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve   | **Brass body** | | | | | | |
| | Sub-base (SFB) | 2.0 | 0.12 | 0-16 | 7 | 209266 | 209272 |
| | | 2.5 | 0.16 | 0-10 | 7 | 209267 | 209273 |
| | | 3.0 | 0.23 | 0-6 | 7 | 209268 | 209274 |
| | G ⅛ | 2.0 | 0.12 | 0-16 | 7 | 209269 | 209275 |
| | | 2.5 | 0.16 | 0-10 | 7 | 209270 | 209276 |
| | | 3.0 | 0.23 | 0-6 | 7 | 209271 | 209277 |

[1] Measured at +20 °C, 1 bar[2] pressure at valve inlet and free outlet
[2] Measured as overpressure to the atmospheric pressure

**Please note** that the cable plug must be ordered separately (see accessories and separate datasheet, Type 2508).

### Control for impulse version with polarity reversal control

| Polarity is marked on the coil with a label | Features | Terminal connections |
|---|---|---|
| - switch ON + | valve open | (+) on terminal 2 and (-) on terminal 1 (see below) |
| + switch OFF - | valve closed | (+) on terminal 1 and (-) on terminal 2 (see below) |




Pulse duration at least 50 ms.

**Note**: Please use only the cable plug without electrical circuitry for the impulse version

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Technical data - analytical version

| | |
|---|---|
| **Analysis version** | Media flowing through are not contaminated |
| **Limit for risidual carbon** | < 0.2 mg/dm² |
| **Permissible leakage rate for medium** | $10^{-4}$ mbar l/sec<br>• Neutral medium, which does not attack the body and seal materials<br>• Technical vacuum |
| **Electr. connection** | Tag connector acc. to DIN EN 175301-803 Form A (previously DIN43650) for cable plug Type 2508 (see accessories) |
| **Mounting instructions** | No oils, fats or silicone used during the assembly |

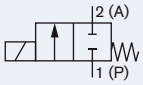
**Solenoid valves for higher Requirements**
This version is particularly suitable for switching from extremely pure gaseous medium. All media-affected parts are submitted to additional purification processes, so that the media is not contaminated under any circumstances.

The tightness test takes place at the Helium leak detector from a min. of $10^{-4}$ mbar l/sec.

## Ordering chart (other versions on request)

### 6013 Analysis normally closed valve with seal material FKM and brass body (class B)

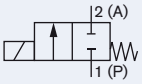
Delivered without cable plug (see accessories)

| Circuit function | Orifice [mm] | Port connection | $K_V$ value water [m³/h][1] | Pressure range [bar][2] | Coil power [W] | Voltage/ Frequency [V/Hz] | Article no. |
|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 2.0 | G ⅛ | 0.12 | 0-12 | 8 | 24/DC | 137826 |
| | | | | 0-25 | | 230/50 | 137827 |
| | 2.5 | G ⅛ | 0.16 | 0-10 | 8 | 24/DC | 137828 |
| | | | | 0-16 | | 230/50 | 137829 |
| | 3.0 | G ¼ | 0.23 | 0-6 | 8 | 24/DC | 137830 |
| | | | | 0-10 | | 230/50 | 137831 |
| | 4.0 | G ¼ | 0.30 | 0-1.5 | 8 | 24/DC | 137832 |
| | | | | 0-4 | | 230/50 | 137833 |

[1] Measured at +20 °C, 1 bar[2] pressure at valve inlet and free outlet..
[2] Measured as overpressure to the atmospheric pressure

### 6013 Analysis normally closed valve with seal material FKM and stainless steel body (class B)

Delivered without cable plug (see accessories)

| Circuit function | Orifice [mm] | Port connection | $K_V$ value water [m³/h][1] | Pressure range [bar][2] | Coil power [W] | Voltage/ Frequency [V/Hz] | Article no. |
|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 2.0 | G ⅛ | 0.12 | 0-12 | 8 | 24/DC | 137818 |
| | | | | 0-25 | | 230/50 | 137819 |
| | 2.0 | G ¼ | 0.12 | 0-12 | 8 | 24/DC | 137820 |
| | | | | 0-25 | | 230/50 | 137821 |
| | 3.0 | G ¼ | 0.23 | 0-6 | 8 | 24/DC | 137822 |
| | | | | 0-10 | | 230/50 | 137823 |
| | 4.0 | G ¼ | 0.30 | 0-1.5 | 8 | 24/DC | 137824 |
| | | | | 0-4 | | 230/50 | 137825 |

[1] Measured at +20 °C, 1 bar[2] pressure at valve inlet and free outlet..
[2] Measured as overpressure to the atmospheric pressure

**Please note** that the cable plug must be ordered separately (see accessories and separate datasheet, Type 2508).

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Technical data of the DVGW version

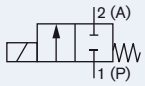
| | |
|---|---|
| **DVGW version** | DIN EN 161:2013; DIN EN 13611:2015 |
| **Seal material** | NBR |
| **Medium** | Flammable gases such as town gas; district gas; liquid gas; hydrogen |
| **Mediums temperature** | 0 to +80 °C |
| **Ambient temperature** | 0 to +55 °C |
| **Max. Operating pressure** | 0 to 5 bar |
| **Circuit function** | A normally closed |

**The Type 6013 DVGW solenoid valve** is designed primarily as an automatic safety shut-off valve for flammable gases. A strainer is installed in the inlet of the valve.

## **Ordering chart for valves** (other versions on request)

### 6013 Normally closed valve with NBR seal, brass body (class B)

Delivered without cable plug (see accessories)

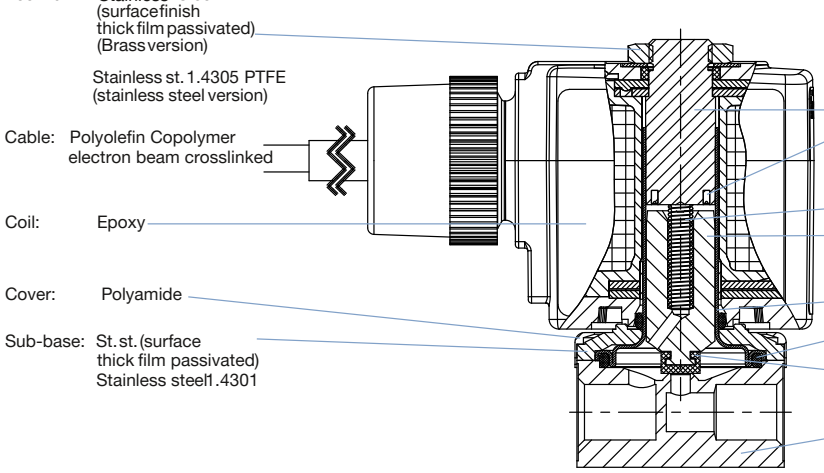
| Circuit function | Orifice [mm] | Port connection | $K_v$-value [m³/h][1] | Pressure range [bar][2] | Coil power [Watt] | Voltage/ frequency [V/Hz] | Article no. |
|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 3 | G 1/4 | 0.23 | 0-5 | 8 | 24/DC | 258362 |
| | 3 | G 1/4 | 0.23 | 0-5 | 8 | 230/50 | 296548 |
| | 4 | G 1/4 | 0.3 | 0-1.5 | 8 | 24/DC | 258361 |
| | 4 | G 1/4 | 0.3 | 0-4 | 8 | 230/50 | 296549 |
| | 6 | G 1/4 | 0.55 | 0-0.5 | 8 | 24/DC | 266293 |
| | 6 | G 1/4 | 0.55 | 0-1.5 | 8 | 230/50 | 301072 |

[1] Measured at + 20 °C, 1 bar[2] pressure at valve inlet and free outlet

[2] Measured as overpressure to the atmospheric pressure

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

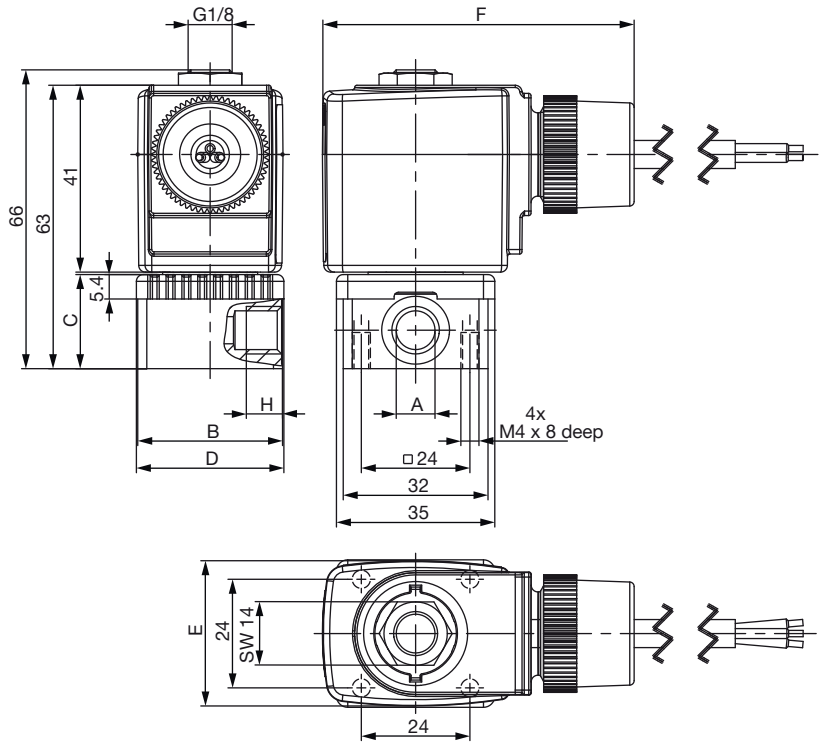
## Materials for ATEX/IECEx cable version



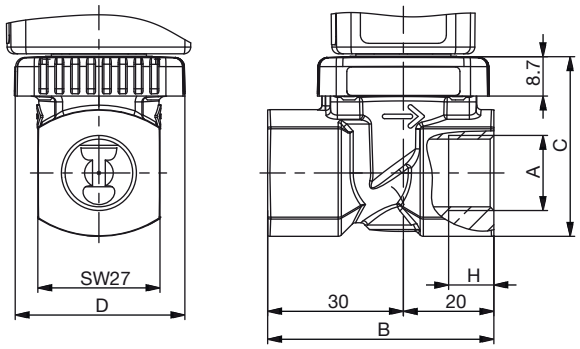

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Dimensions for ATEX/IECEx cable version [mm]

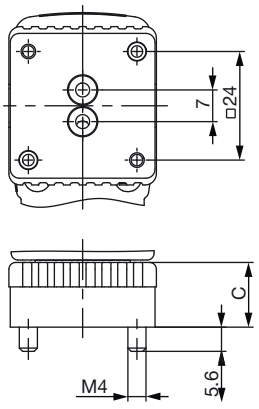
**Threaded version, G1/8**




**Threaded version, G3/8**




**Sub-base version (SFB)**
underside view



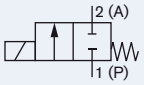

| Port connection | Body dimensions [mm] A | B | C | D | H |
|---|---|---|---|---|---|
| G ⅛ | G ⅛ | 32 | 20.8 | 32.6 | 8 |
| G ¼ | G ¼ | 46 | 26.8 | 49 | 12 |
| G ⅜ | G ⅜ | 50 | 39.8 | 38 | 12 |
| Sub-base version {SFB) | – | 32 | 13.3 | 32.6 | – |

| Coil size | E [mm] | F [mm] |
|---|---|---|
| 5 | 32 | 69 |
| 6 | 40 | 75 |

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Ordering chart for valves - ATEX/IECEx cable versions (other versions on request)

### 6013 Normally closed valve, Ex m T4 approved with seal material FKM and molded cable (3 m), single mounting only

| Circuit function | Orifice [mm] | Port connection | $K_v$ value water [m³/h] | Coil effective power [W] | Pressure range [bar] | Voltage/ Frequency [V/Hz] | Article no. Brass body | Article no. Stainless steel body |
|---|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 2.0 | sub-base (SFB) | 0.11 | 7 | 0-6 | 24/UC | 278607 | 278614 |
| | | | | | | 230/UC | 278608 | x |
| | | G ⅛ | 0.12 | 9 | 0-10 | 24/UC | 278592 | 278584 |
| | | | | | | 230/UC | x | 278585 |
| | | G ¼ | 0.12 | 9 | 0-10 | 24/UC | 278605 | 278601 |
| | | | | | | 230/UC | 278606 | 278603 |
| | 2.5 | G ⅛ | 0.16 | 9 | 0-8 | 24/UC | 278593 | x |
| | | | | | | 230/UC | x | x |
| | 3.0 | G ⅛ | 0.23 | 9 | 0-5 | 24/UC | x | 278586 |
| | | | | | | 230/UC | x | x |
| | | G ¼ | 0.23 | 9 | 0-5 | 24/UC | 278594 | 278587 |
| | | | | | | 230/UC | 278596 | 278589 |
| | 4.0 | G ¼ | 0.30 | 9 | 0-1.2 | 24/UC | 278597 | 278590 |
| | | | | | | 230/UC | x | 278591 |
| | 6.0 | G ¼ | 0.55 | 9 | 0-0.4 | 24/UC | 278598 | 278604 |
| | | | | | | 230/UC | 278599 | x |

x on request

The maximum fluid temperature must not in any case exceed the permissible temperature class (T4 135 °C, 100 °C T5, T6 85 °C), minus 5 K).

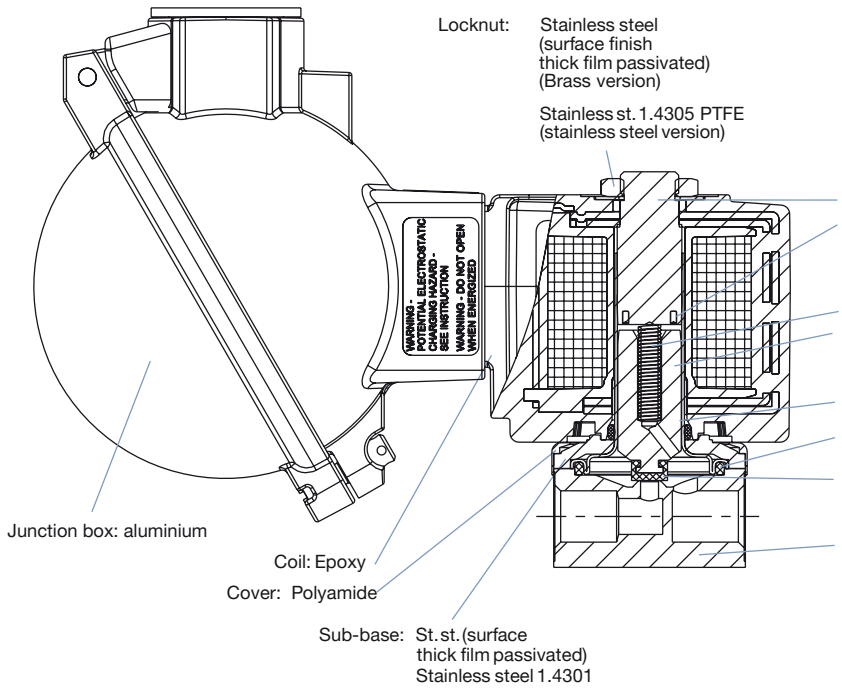
**ATEX and IECEx approval for coils with fixed cable outlet**

ATEX: PTB 14 ATEX 2023 X
II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIIC T135 °C Db

IECEx: IECEx PTB 14.0049 X
Ex mb IIC T4 Gb
Ex mb IIIC T135 °C Db

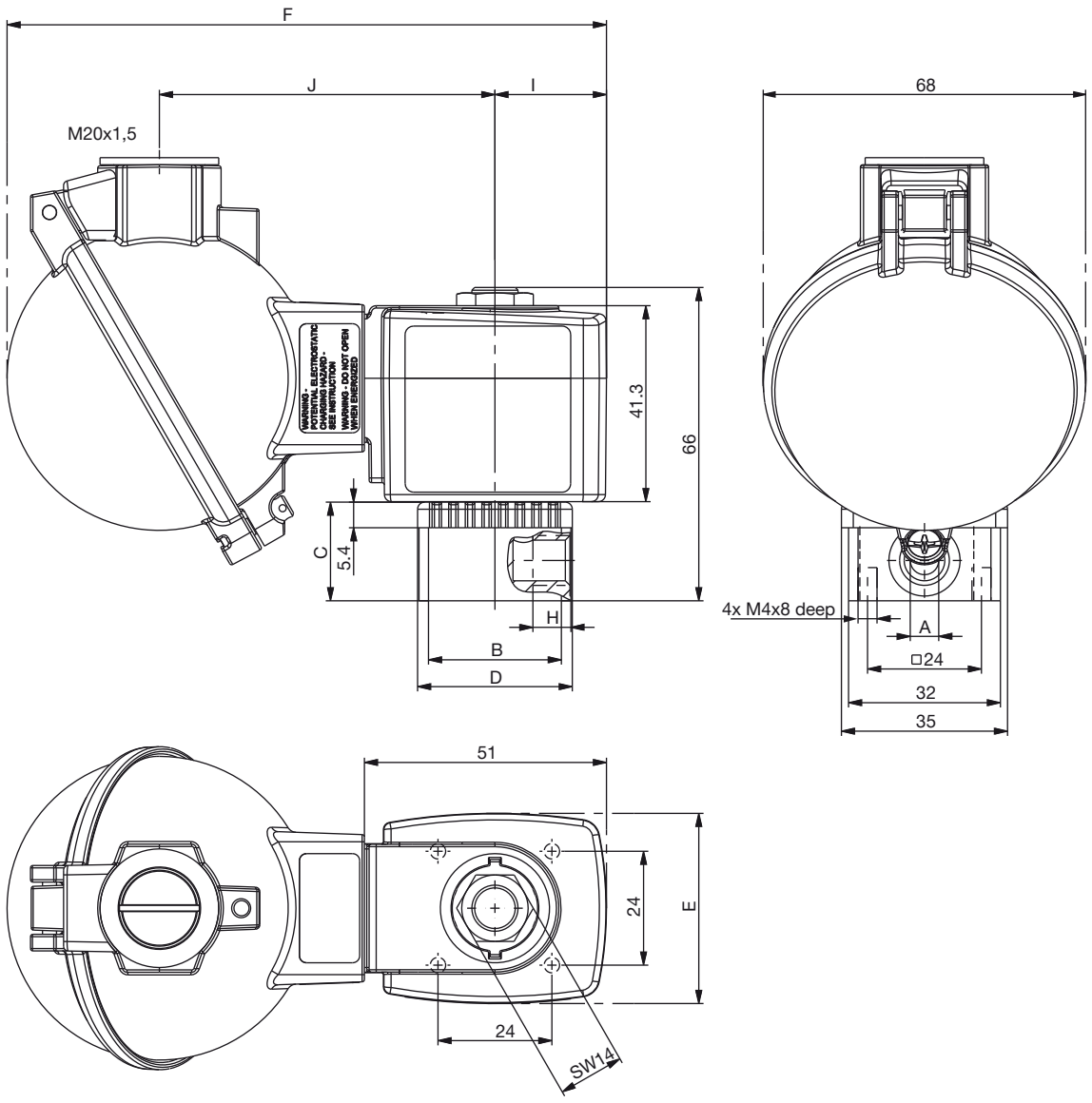
DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Materials for ATEX/IECEx junction box version




DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Dimensions for ATEX/IECEx junction box version



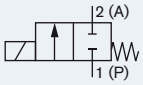

| Port connection | Body dimensions [mm] A | B | C | D | H |
|---|---|---|---|---|---|
| G ⅛ | G ⅛ | 32 | 20.8 | 32.6 | 8 |
| G ¼ | G ¼ | 46 | 26.8 | 49 | 12 |
| G ⅜ | G ⅜ | 50 | 39.8 | 38 | 12 |
| Sub-base version {SFB) | – | 32 | 13.3 | 32.6 | – |

| Coil size | E [mm] | F | I | J |
|---|---|---|---|---|
| 5 | 32 | 120.3 | 20.5 | 69 |
| 6 | 40 | 126.3 | 23.5 | 70.7 |

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Ordering chart for valves - ATEX/IECEx junction box versions (other versions on request)

### 6013 Normally closed valve, Ex m T4 approved with seal material FKM and junction box, single mounting only

| Circuit function | Orifice [mm] | Port connection | $K_v$ value | Coil effective power | Pressure range | Voltage/ Frequency | Article no. Brass body | Article no. Stainless steel body |
|---|---|---|---|---|---|---|---|---|
| **A** 2/2 way valve NC   | 1.5 | sub-base (SFB) | 0.08 | 9 | 0-16 | 24/UC | 288424 | x |
| | 2 | G ⅛ | 0.12 | | 0-10 | 24/UC | 288430 | 288437 |
| | | | | | | 230/UC | 288431 | 288438 |
| | | G ¼ | | | | 24/UC | 288433 | 288439 |
| | | | | | | 230/UC | 288435 | 288441 |
| | 3 | G ⅛ | 0.23 | | 0-5 | 24/UC | 297741 | x |
| | | | | | | 230/UC | x | x |
| | | G ¼ | | | | 24/UC | x | 288449 |
| | | | | | | 230/UC | x | 288451 |
| | 4 | | 0.3 | | 0-1.2 | 24/UC | 288452 | 288453 |
| | | | | | | 230/UC | x | 288455 |
| | 6 | | 0.55 | | 0-0.4 | 24/UC | 288456 | 288459 |
| | | | | | | 230/UC | 288457 | 288460 |

x on request

The maximum fluid temperature must not in any case exceed the permissible temperature class (T4 135 °C, 100 °C T5, T6 85 °C), minus 5 K.

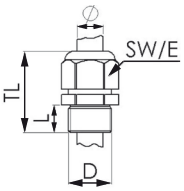
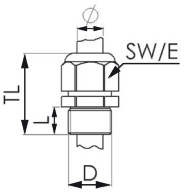
**ATEX and IECEx approval for the assembly of the coil and the junction box**

ATEX: EPS 16 ATEX 1046 X
II 2G Ex eb mb IIC T4 Gb
II 2D Ex mb tb IIIC T130 °C Db

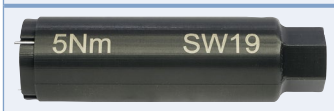
IECEx: IECEx EPS 16.0021 X
Ex eb mb IIC T4 Gb
Ex mb tb IIIC T130 °C Db

### Ex-Cable glands

(polyamide version included in delivery / surcharge applied for brass nickel plated version)

| Photo | Description | Ex Approvals | | Article no | Drawing |
|---|---|---|---|---|---|
| | | Certification | Identification | | |
| | Brass. nickelplated, 6-13 mm | PTB 04 ATEX 1112 X, IECEx PTB 13.0027X | II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68, | 773278 |   TL 29-37 mm; L 6 mm; D 20; SW 24 mm; E 27 mm |
| | Polyamide, 7-13 mm | PTB 13 ATEX 1015 X, IECEx PTB 13.0034X | II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68 | 773277 |   TL 36-45 mm; L 10 mm; D 20; SW 24 mm; E 28 mm |

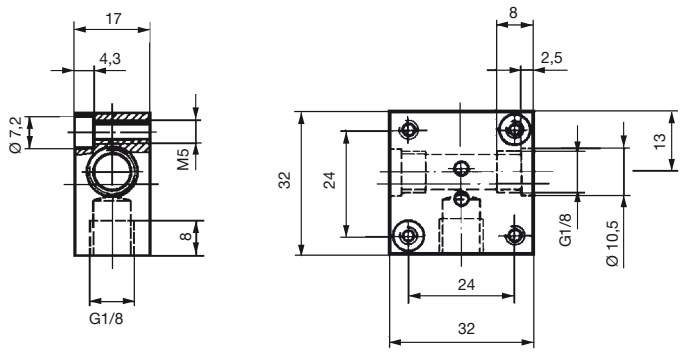
### Special tool to turn the junction box (not included in delivery)

| Photo | Description | Article no. |
|---|---|---|
|   | Set SC02-AC10<br>Special wrench<br>Service Manual | 293488 |

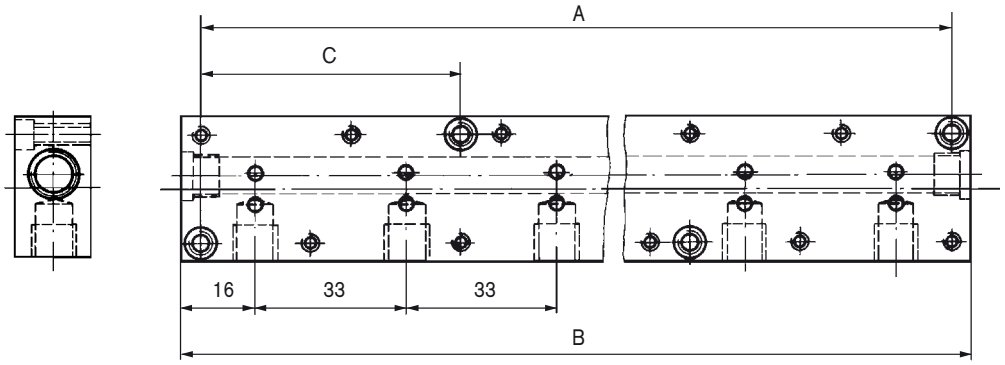
DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Manifold mounting

**Single manifold**




**Multiple manifold**




## Ordering chart for Manifolds

| Accessory part | Quantity of valve places | | | | Article no. |
|---|---|---|---|---|---|
| Single manifold | in aluminium | | | | 005020 |
| **Multiple manifold** | **in aluminium** | **Hole spacing A [mm]** | **Total length B [mm]** | **Hole spacing C [mm]** | |
| | 2 | 57 | 65 | – | 005023 |
| | 3 | 90 | 98 | – | 005286 |
| | 4 | 123 | 131 | – | 005287 |
| | 5 | 156 | 164 | 57 | 005035 |
| | 6 | 189 | 197 | 57 | 005038 |
| | 8 | 255 | 263 | 90 | 005386 |
| | 10 | 321 | 329 | 90 | 005764 |
| Connector nipple | with O-Ring, to connect from manifold | | | | 005040 |
| Covering plate | with screws and O-ring for locking unoccupied valve positions | | | | 005630 |

With manifold mounting, please comply with the permissible duty cycle (5 W models with 100 % continuous rating or 8 W model with 60 % duty cycle). The pressure port for the manifold is designated with P (R), and the outlet port with A (B). Only connect together ports with the same designation.

2/2 way valves of Type 6013 can be operated together on a manifold with 3/2 way valves of Type 6014, circuit function C (not D or T!) if the operating pressures agree according to the rating plates. The manifolds can also be expanded if the valve functions are taken into consideration. Connector nipples with O-rings are used to connect the P (R) ports.

**Attention!**
Unused, open valve ports must be closed off with covering plates (see accessories). Manifold should be fixed on to a rail.

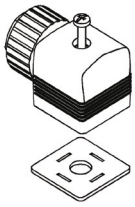
DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018

## Ordering chart for accessories

### Cable plug Type 2508 acc. to DIN EN 175301-803 Form A (previously DIN 43650)

Included in delivery is a cable plug with flat seal and fixing screw. Other versions, see Datasheet: Type 2508.

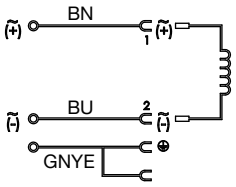
| Circuit | Voltage | Article no. |
|---|---|---|
| without circuitry | 0 - 250 V | 008376 |
| with LED | 12 - 24 V | 008360 |
| with LED and varistor | 12 - 24 V | 008367 |
| with LED and varistor | 200 - 240 V | 008369 |
| with inverter[1)] | 24 V DC | on request |
| further versions | see datasheet Type 2508 | |



[1)] The inverter plug contains an electronic, which especially enables the electric 3 wire control
Input for 3 wire technology, common "-" polarity, two split "+" polarity.
Output suitable for implulse version for Type 6013/6014

### Cable plug Type 2513 acc. to DIN EN 175301-803, Form A

Meets the requirements of ATEX category 3 GD




| Cable length [mm] | Article no. [in mm] |
|---|---|
| 12000 | 260893 |
| 5000 | 260892 |
| 3000 | 260891 |
| 300 | 260890 |

### Further versions on request

**Approval**
UL / UR / CSA
FM / CSA-EX Div ½
European gas approval Class A, Group 2

**Port connection**
Threaded port NPT, Rc

**Voltage**
Further voltages

**Materials**
Seal material EPDM

**Pressure**
Variants with increased coil power for higher medium pressure

DTS 1000011032 EN Version: AB Status: RL (released | freigegeben | validé) printed: 21.02.2018



In case of special application conditions, please consult for advice..
Subject to alterations
© Christian Bürkert GmbH & Co. KG
1802/24_EU-en_00891729