



Typ 5404 kombinierbar mit

**Type 2508**

Cable plug

**Type 2513**Cable plug  
(ATEX Cat. 3 GD)**Type 1078**

Timer unit

**Type 2511**

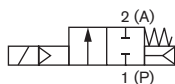
ASI cable plug

## Servo-assisted 2/2 way piston valve

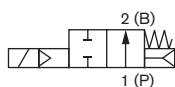
- Servo-assisted piston valve with diameter of up to DN 25
- Vibration-proof, screwed coil system
- Moulded housing with high surface quality
- Explosion proof versions
- Suitable for gas and steam applications

The 5404 valve is a servo-assisted piston valve available in both NC and NO versions. A minimum differential pressure is required for the valve switching function. The standard brass housing satisfies all European drinking water requirements. The solenoid coils are moulded with high-quality polyamide. For reduced energy requirement, all coils can be delivered with electronic power reduction. In combination with a plug in accordance with DIN EN 17301-803 Form A, the valves satisfy protection class P65.

### Circuit function A

2/2 way valve NC,  
normally closed

### Circuit function B

2/2 way valve NO,  
normally open

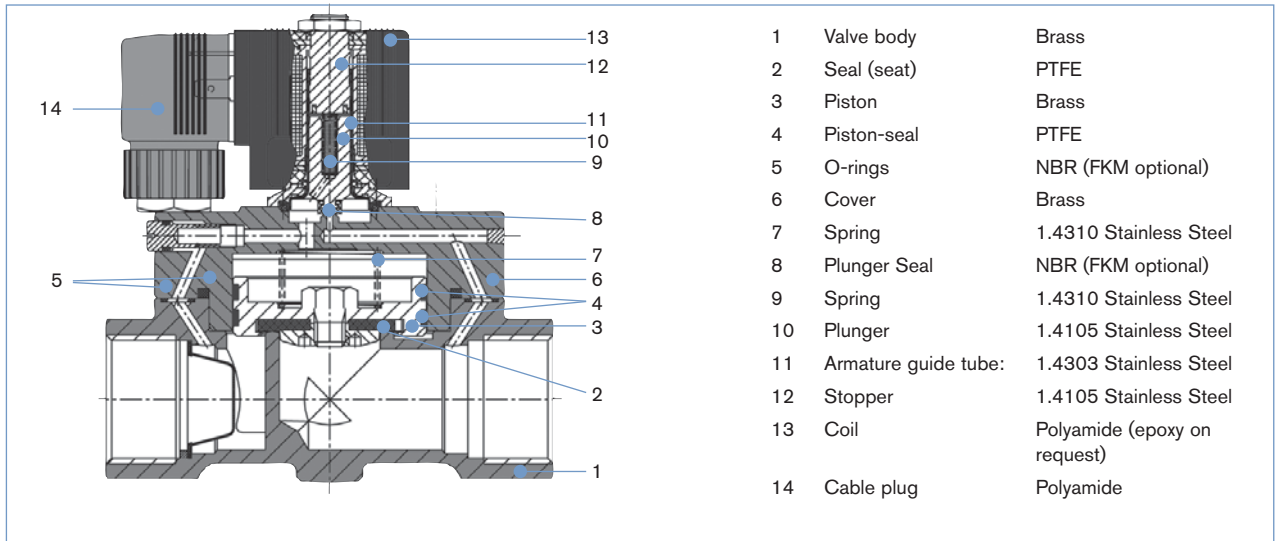
| Technical data               |   |
|------------------------------|---|
| <b>Orifice</b>               | DN 12 - 25 mm   |
| <b>Body material</b>         | Brass   |
| <b>Coil material</b>         | Polyamide   |
| <b>Coil insulation class</b> | B (H on request)  |
| <b>Valve internals</b>       | Stainless steel, brass  |
| <b>Seal material</b>         | PTFE seat seal + NBR<br>PTFE seat seal + FKM  |
| <b>Media</b>                 | Neutral media, compressed air, water, hydraulic oil   |
| <b>Media temperature</b>     | 0 to +100 °C  |
| <b>Ambient temperature</b>   | Max. +55 °C   |
| <b>Voltage tolerance</b>     | ±10 %   |
| <b>Duty cycle</b>            | 100% continuous rating  |
| <b>Electrical connection</b> | Tag connector acc. to DIN EN 175301-803<br>(previously DIN 43650 ) Form A for cable plug Type 2508<br>(see accessories) |
| <b>Protection class</b>      | IP 65 with cable plug   |
| <b>Installation</b>          | As required, preferably with actuator upright   |

| Response times |   |
|----------------|---|
| Opening [ms]   | 20-400  |
| Closing [ms]   | 100-1500 (depending on orifice and differential pressure) |

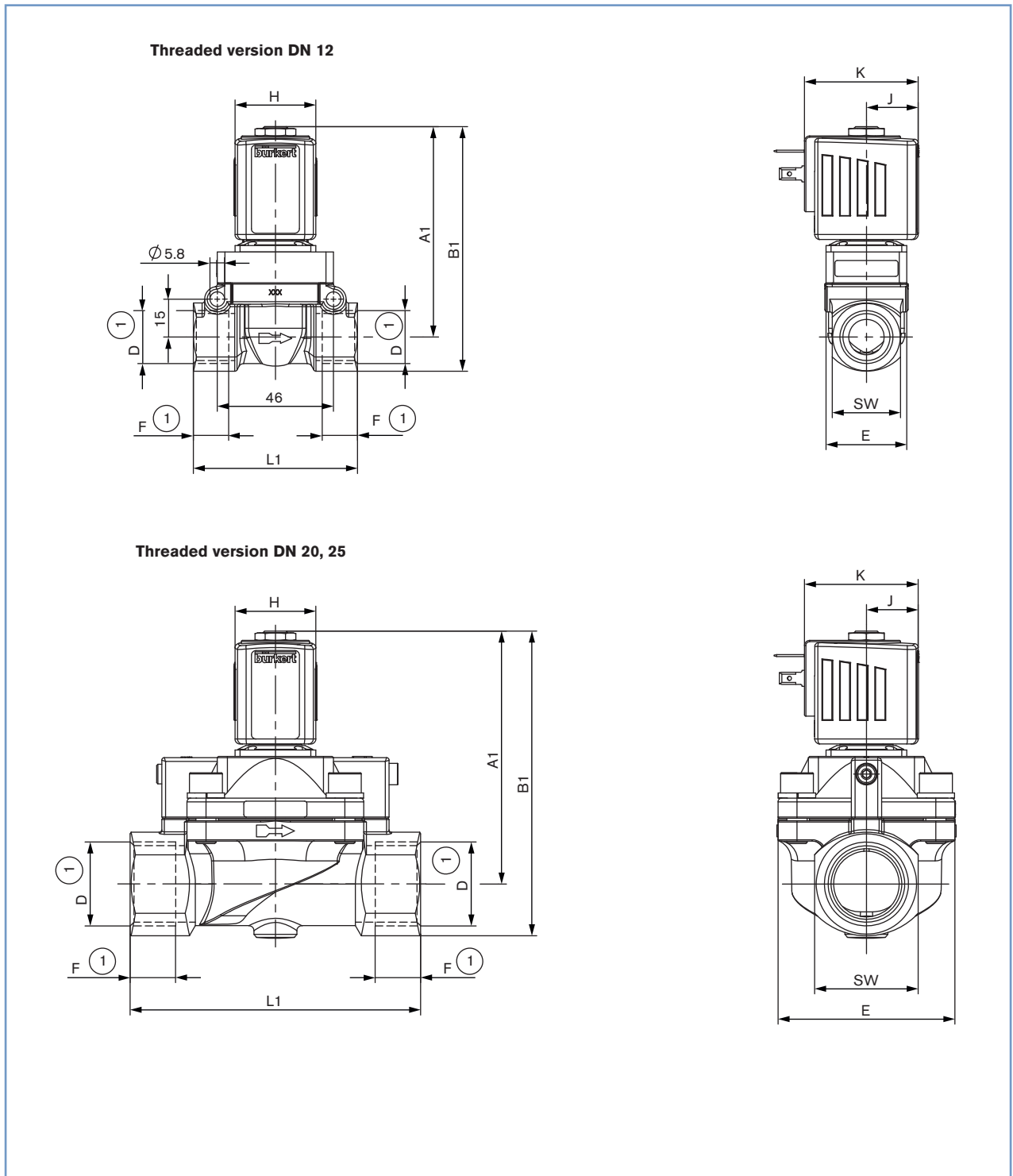
| Power consumption                                 |                         |                             |       |
|---|-------------------------|-----------------------------|-------|
| Standard Inrush AC [VA]                           | Hold AC (hot coil) [VA] | Hold DC (hot/cold coil) [W] |       |
| <b>Circuit function A</b>                         |                         |                             |       |
| 24  | 14                      | 8                           | 8/9.5 |
| <b>Circuit function B</b>                         |                         |                             |       |
| 24  | 16                      | 7                           | 8/9.5 |
| <b>Ex Coil <sup>1)</sup> (Circuit function A)</b> |                         |                             |       |
| 9   | 9                       |                             | 9     |

<sup>1)</sup> with internal rectifier

## Materials



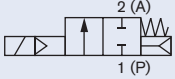
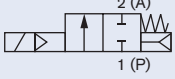
Dimensions [mm] - standard version



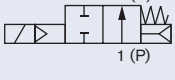
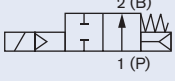
| Threaded version |      |      |      |     |       |    |         |      |        |      |    |     |    |    |      |    |           |
|------------------|------|------|------|-----|-------|----|---------|------|--------|------|----|-----|----|----|------|----|-----------|
| DN [mm]          | WWA  |      | WWB  |     | D1    | F1 | D2      | F2   | D3     | F3   | E  | L1  | SW | H  | J    | K  | Coil size |
|                  | A1   | B1   | A1   | B1  |       |    |         |      |        |      |    |     |    |    |      |    |           |
| 12.0             | 83   | 96.5 | 90.5 | 104 | G 1/2 | 14 | NPT 1/2 | 13.7 | Rc 1/2 | 13.2 | 32 | 65  | 27 | 32 | 20.5 | 45 | 5         |
| 20.0             | 93   | 109  |      |     | G 3/4 | 16 | NPT 3/4 | 14   | Rc 3/4 | 14.5 | 60 | 100 | 32 |    |      |    |           |
| 25.0             | 99.5 | 119  |      |     | G1    | 18 | NPT1    | 16.8 | Rc1    | 16.8 | 70 | 115 | 41 |    |      |    |           |
| 12.0             | 83   | 96.5 | 90.5 | 104 | G 1/2 | 14 | NPT 1/2 | 13.7 | Rc 1/2 | 13.2 | 32 | 65  | 27 | 40 | 23.5 | 51 | 6         |
| 20.0             | 93   | 109  |      |     | G 3/4 | 16 | NPT 3/4 | 14   | Rc 3/4 | 14.5 | 60 | 100 | 32 |    |      |    |           |
| 25.0             | 99.5 | 119  |      |     | G1    | 18 | NPT1    | 16.8 | Rc1    | 16.8 | 70 | 115 | 41 |    |      |    |           |

## Ordering chart for valves - Standard version (other versions on request)

Circuit function A (NC, normally closed), brass body; delivered without cable plug

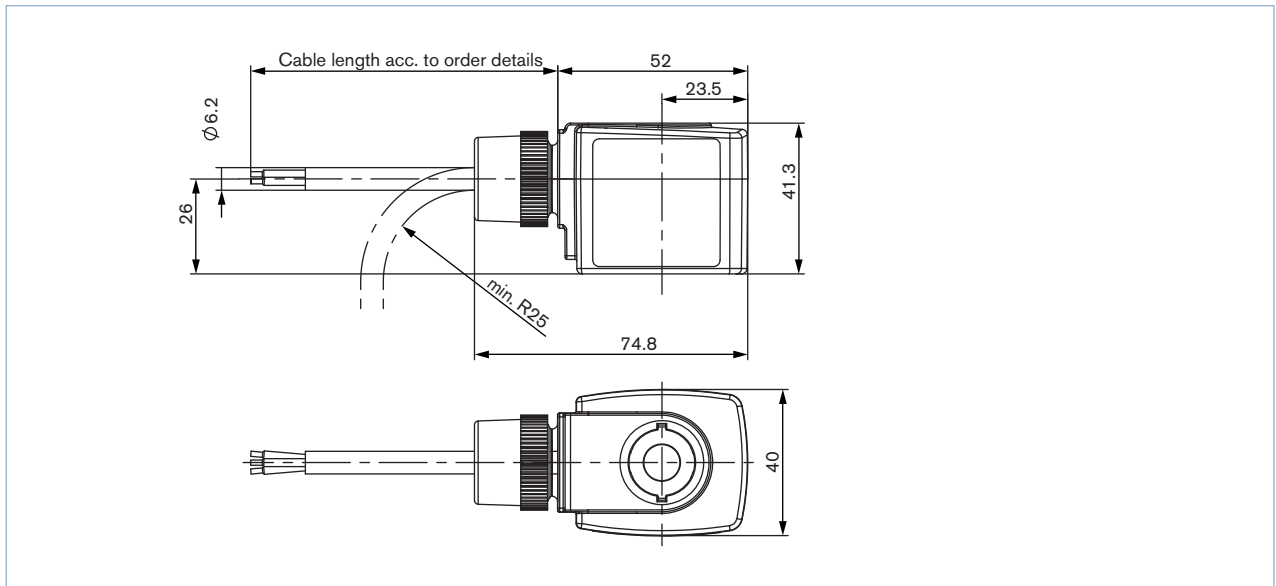
| Circuit function  | Port connection | Orifice [mm] | Kv value water [m³/h] | Pressure range for liquids [bar] | pressure range for gases [bar] | Item no. per voltage/frequency [V/Hz] |         |         |
|---|-----------------|--------------|-----------------------|----------------------------------|--------------------------------|---------------------------------------|---------|---------|
|   |                 |              |                       |                                  |                                | 024/DC                                | 024/50  | 230/50  |
| <b>PTFE + NBR</b>   |                 |              |                       |                                  |                                |                                       |         |         |
| <b>A</b> 2/2 way valve, NC<br> | G 1/2           | 12           | 2.0                   | 1 - 50                           | 1 - 50                         | 134 590                               | 134 591 | 134 593 |
|   | G 3/4           | 20           | 5.0                   | 1 - 25                           | 1 - 32                         | 134 594                               | -       | -       |
|   |                 |              |                       | 1 - 25                           | 1 - 40                         | -                                     | 134 595 | 134 597 |
|   | G 1             | 25           | 10.0                  | 1 - 25                           | 1 - 32                         | 134 598                               | -       | -       |
| 1 - 25  |                 |              |                       | 1 - 40                           | -                              | 134 599                               | 134 601 |         |
| <b>PTFE + FKM</b>   |                 |              |                       |                                  |                                |                                       |         |         |
| <b>A</b> 2/2 way valve, NC<br> | G 1/2           | 12           | 2.0                   | 1 - 50                           | 1 - 50                         | 140 564                               | 140 565 | 140 566 |
|   | G 3/4           | 20           | 5.0                   | 1 - 25                           | 1 - 32                         | X                                     | -       | -       |
|   |                 |              |                       | 1 - 25                           | 1 - 40                         | -                                     | X       | X       |
|   | G 1             | 25           | 10.0                  | 1 - 25                           | 1 - 32                         | 189 860                               | -       | -       |
| 1 - 25  |                 |              |                       | 1 - 40                           | -                              | X                                     | X       |         |

Circuit function B (NO, normally open), internal feedback, brass body; delivered without cable plug

| Circuit function  | Port connection | Orifice [mm] | Kv value water [m³/h] | Pressure range for liquids [bar] | pressure range for gases [bar] | Item no. per voltage/frequency [V/Hz] |         |        |
|---|-----------------|--------------|-----------------------|----------------------------------|--------------------------------|---------------------------------------|---------|--------|
|   |                 |              |                       |                                  |                                | 024/DC                                | 024/50  | 230/50 |
| <b>PTFE + NBR</b>   |                 |              |                       |                                  |                                |                                       |         |        |
| <b>B</b> 2/2 way valve, NO<br> | G 1/2           | 12           | 2.0                   | 1 - 40                           | 1 - 40                         | X                                     | X       | X      |
|   | G 3/4           | 20           | 5.0                   | 1 - 25                           | 1 - 25                         | X                                     | X       | X      |
|   | G 1             | 25           | 10.0                  | 1 - 25                           | 1 - 25                         | X                                     | X       | X      |
| <b>PTFE + FKM</b>   |                 |              |                       |                                  |                                |                                       |         |        |
| <b>B</b> 2/2 way valve, NO<br> | G 1/2           | 12           | 2.0                   | 1 - 40                           | 1 - 40                         | X                                     | X       | X      |
|   | G 3/4           | 20           | 5.0                   | 1 - 25                           | 1 - 25                         | X                                     | 254 636 | X      |
|   | G 1             | 25           | 10.0                  | 1 - 25                           | 1 - 25                         | X                                     | X       | X      |

X on request

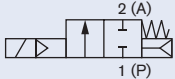
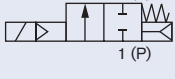
## Dimensions [mm] - ATEX/IECEX version



## ordering chart for valves - ATEX/IECEX versions (other versions on request)

## Circuit function A (NC, normally closed), brass body; delivered without cable plug

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.

| Circuit function  | Port connection | Orifice [mm] | Kv value water [m³/h] | Pressure range for liquids [bar] | pressure range for gases [bar] | Item no. per voltage/frequency [V/Hz] |         |
|---|-----------------|--------------|-----------------------|----------------------------------|--------------------------------|---------------------------------------|---------|
|   |                 |              |                       |                                  |                                | 024/UC                                | 230/UC  |
| <b>PTFE + NBR</b>   |                 |              |                       |                                  |                                |                                       |         |
| <b>A</b> 2/2 way valve, NC<br> | G 1/2           | 12           | 2.0                   | 1-50                             | 1-50                           | X                                     | 278 115 |
|   | G 3/4           | 20           | 5.0                   | 1-25                             | 1-32                           | X                                     | X       |
|   | G 1             | 25           | 10.0                  | 1-25                             | 1-32                           | X                                     | X       |
| <b>PTFE + FKM</b>   |                 |              |                       |                                  |                                |                                       |         |
| <b>A</b> 2/2 way valve, NC<br> | G 1/2           | 12           | 2.0                   | 1-50                             | 1-50                           | 278 117                               | 278 118 |
|   | G 3/4           | 20           | 5.0                   | 1-25                             | 1-32                           | 285 858                               | 278 121 |
|   | G 1             | 25           | 10.0                  | 1-25                             | 1-32                           | X                                     | X       |

X on request

## Explosion-proof approvals

ATEX: PTB 14 ATEX 2023 X

II 2G Ex mb IIC T4 Gb

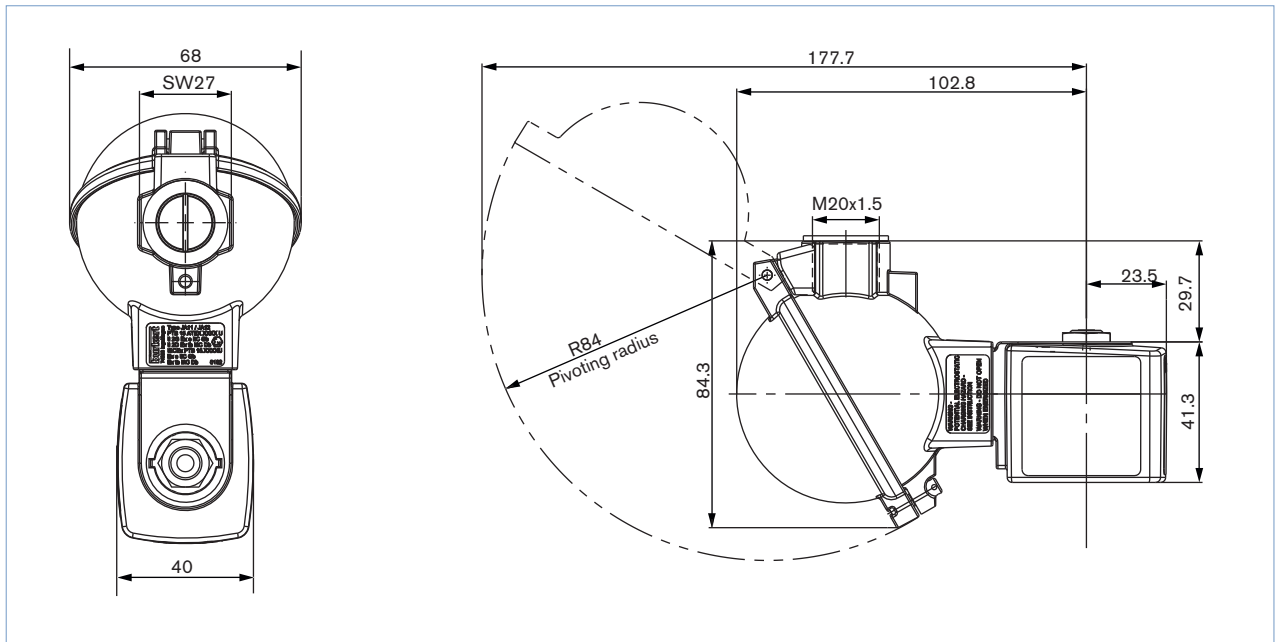
II 2D Ex mb IIIC T130 °C Db

IECEX: IECEX PTB 14.0049 X

Ex mb IIC T4 Gb

Ex mb IIIC T130 °C Db

## Dimensions [mm] - ATEX/IECEx junction box version



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

### Circuit function A (NC, normally closed), brass body; delivery without cable plug

The maximum fluid temperature must in any case exceed the permissible temperature class (T4 135 °C, 100 °C T5, T6 85 °C), minus 5 K.

| Circuit function               | Port connection | Orifice [mm] | Kv value water [m <sup>3</sup> /h] | Pressure range for liquids [bar] | pressure range for gases [bar] | Item no. per voltage/frequency [V/Hz] |         |
|--------------------------------|-----------------|--------------|------------------------------------|----------------------------------|--------------------------------|---------------------------------------|---------|
|                                |                 |              |                                    |                                  |                                | 024/UC                                | 230/UC  |
| <b>PTFE + NBR</b>              |                 |              |                                    |                                  |                                |                                       |         |
| <b>A</b> 2/2 way valve, NC<br> | G 1/2           | 12           | 2,0                                | 1-50                             | 1-50                           | x                                     | x       |
|                                | G 3/4           | 20           | 5,0                                | 1-25                             | 1-32                           | x                                     | x       |
|                                | G 1             | 25           | 10,0                               | 1-25                             | 1-32                           | x                                     | x       |
| <b>PTFE + FKM</b>              |                 |              |                                    |                                  |                                |                                       |         |
| <b>A</b> 2/2 way valve, NC<br> | G 1/2           | 12           | 2,0                                | 1-50                             | 1-50                           | 289 362                               | 289 371 |
|                                | G 3/4           | 20           | 5,0                                | 1-25                             | 1-32                           | x                                     | x       |
|                                | G 1             | 25           | 10,0                               | 1-25                             | 1-32                           | x                                     | x       |

### Explosion-proof approvals

ATEX: PTB 15 ATEX 1011U

IECEX: PTB 15.0037U

X on request

**Note:** the pressure values for liquid media are shown on the rating plate!

**Please note** that the cable plug has to be ordered separately, see Ordering chart for accessory below and separate datasheet, Type 2508


**i Further versions on request**

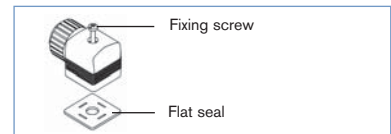
**Approvals**  
UL, UR, CSA, Hazardous Locations Expl. proof, EEx m/ed

**Voltage**  
110/50, non-standard voltages

**Ordering chart for accessories**

**Cable plug Type 2508 according to DIN EN 175301-803 Form A**


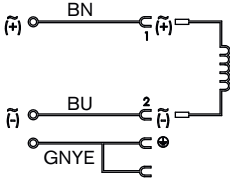
|  | Circuitry                        | Voltage / frequency | Item no. |
|---|----------------------------------|---------------------|----------|
|   | None (standard)                  | 0 - 250 V AC/DC     | 008 376  |
|   | with LED                         | 12 - 24 V AC/DC     | 008 360  |
|   | with LED and varistor            | 12 - 24 V AC/DC     | 008 367  |
|   | with rectifier, LED and varistor | 12 - 24 V AC/DC     | 008 363  |
|   | with LED                         | 200 - 240 V         | 008 362  |
|   | with LED and varistor            | 200 - 240 V         | 008 369  |
| further versions see datasheet Type 2508  |                                  |                     |          |



The delivery of a cable plug includes the flat seal and the fixing screw. For other cable plug versions acc. to DIN EN 175301-803 Form A (previously DIN 43650), see separate datasheet Type 2508.


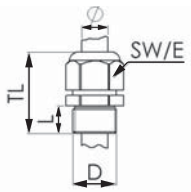

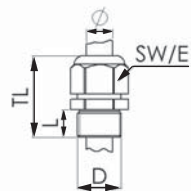
**Cable plug Type 2513 acc. to DIN EN 175301-803, Form A**

Meets the requirements of ATEX category 3 GD

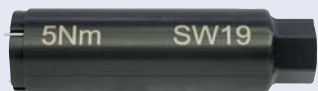
|  |  | Cable length [mm] | Item no. [in mm] |
|---|---|-------------------|------------------|
|   |   | 12000             | 260 893          |
|   |   | 5000              | 260 892          |
|   |   | 3000              | 260 891          |
|   |   | 300               | 260 890          |

**Ex-Cable glands**

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

| Photo   | Description                  | Ex Approvals                           |  | Item no | Drawing   |    |          |   |       |   |    |    |       |   |       |
|---|------------------------------|--|--|---------|---|----|----------|---|-------|---|----|----|-------|---|-------|
|   |                              | Certification                          | Identifica-tion                                |         |   |    |          |   |       |   |    |    |       |   |       |
|  | 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, | 773 278 |  <table border="1"> <tr><td>TL</td><td>29-37 mm</td></tr> <tr><td>L</td><td>6 mm</td></tr> <tr><td>D</td><td>20</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>27 mm</td></tr> </table>  | TL | 29-37 mm | L | 6 mm  | D | 20 | SW | 24 mm | E | 27 mm |
| 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  | 773 277 |  <table border="1"> <tr><td>TL</td><td>36-45 mm</td></tr> <tr><td>L</td><td>10 mm</td></tr> <tr><td>D</td><td>20</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>28 mm</td></tr> </table> | TL | 36-45 mm | L | 10 mm | D | 20 | SW | 24 mm | E | 28 mm |
| 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                                       | Item no. |
|---|---|----------|
|  | Set SC02-AC10<br>Special wrench<br>Service Manual | 293 488  |

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In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

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