

По вопросам продаж и поддержки обращайтесь:

| | | |
|-----------------------------|---------------------------------|--------------------------------|
| Архангельск (8182)63-90-72 | Краснодар (861)203-40-90 | Рязань (4912)46-61-64 |
| Астана (7172)727-132 | Красноярск (391)204-63-61 | Самара (846)206-03-16 |
| Белгород (4722)40-23-64 | Курск (4712)77-13-04 | Санкт-Петербург (812)309-46-40 |
| Брянск (4832)59-03-52 | Липецк (4742)52-20-81 | Саратов (845)249-38-78 |
| Владивосток (423)249-28-31 | Магнитогорск (3519)55-03-13 | Смоленск (4812)29-41-54 |
| Волгоград (844)278-03-48 | Москва (495)268-04-70 | Сочи (862)225-72-31 |
| Вологда (8172)26-41-59 | Мурманск (8152)59-64-93 | Ставрополь (8652)20-65-13 |
| Воронеж (473)204-51-73 | Набережные Челны (8552)20-53-41 | Тверь (4822)63-31-35 |
| Екатеринбург (343)384-55-89 | Нижний Новгород (831)429-08-12 | Томск (3822)98-41-53 |
| Иваново (4932)77-34-06 | Новокузнецк (3843)20-46-81 | Тула (4872)74-02-29 |
| Ижевск (3412)26-03-58 | Новосибирск (383)227-86-73 | Тюмень (3452)66-21-18 |
| Казань (843)206-01-48 | Орел (4862)44-53-42 | Ульяновск (8422)24-23-59 |
| Калининград (4012)72-03-81 | Оренбург (3532)37-68-04 | Уфа (347)229-48-12 |
| Калуга (4842)92-23-67 | Пенза (8412)22-31-16 | Челябинск (351)202-03-61 |
| Кемерово (3842)65-04-62 | Пермь (342)205-81-47 | Череповец (8202)49-02-64 |
| Киров (8332)68-02-04 | Ростов-на-Дону (863)308-18-15 | Ярославль (4852)69-52-93 |

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ДАТЧИКИ И РЕЛЕ ДАВЛЕНИЯ




Pressure transmitter for general applications, 0...25 bar


- Available with hygienic flush-mounted diaphragm
- Housing and wetted parts in corrosion-resistant stainless steel
- Standard signal 4...20 mA for connection to automation systems
- Plug for quick installation and service
- Many pressure ranges available




Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

- 

Type 8611
eCONTROL - Universal controller
- 

Type 8802
ELEMENT continuous control valve systems - overview
- 

Type 8619
multiCELL - Multi-channel and multi-function transmitter/controller

Type description

This pressure transmitter is designed to cover the majority of industrial applications in the field of pressure measurement technology. High accuracy, compact design, robust construction and flexibility make the transmitter suitable for various measurement tasks. All wetted parts are made of stainless steel and completely welded. Internal seal elements, which restrict the choice of measuring materials, are excluded.

Many other pressure ranges available, 0.125 % accuracy, other output signals, other electrical connections, other process connections, on request.

1. General Technical Data

| Product properties | |
|--|---|
| Material | |
| Non wetted parts | |
| Housing of the standard version <0.4 bar | Stainless steel 1.4301 (304) |
| Housing of the standard version ≥0.4 bar or with flush diaphragm version | Stainless steel 1.4571 (316Ti) |
| Wetted parts | |
| Standard version <0.4 bar | Stainless steel 1.4571 (316Ti) |
| Standard version ≥0.4 bar | Stainless steel 1.4404 (316L) (for ≤10 bar (150 PSI)) Stainless steel 1.4534 (13-8 PH) (for >10 bar (150 PSI)) |
| Standard flush diaphragm version | Stainless steel 1.4571 (316Ti), FKM seal |
| Hygienic flush diaphragm version | Stainless steel 1.4404 (316L), EPDM seal |
| Dimensions | Detailed information can be found in chapter "3. Dimensions" on page 5. |
| Internal transmitting liquid | Synthetic Oil (for Standard version with pressure range <10 bar (150 PSI) and for all flush diaphragm units) |
| Measuring range (Pressure reference = relative pressure [atmospheric]) | <ul style="list-style-type: none"> 0...0.1; 0.16; 0.25; 0.4; 0.6; 1.0; 1.6; 2.5; 4.0; 6.0; 10.0; 16.0 or 25.0 bar 0...10; 15; 25; 60; 100; 150; 250; 400 PSI |
| Compensated T° range | 0...+80 °C (+32...+176 °F) |
| Product accessories | |
| Welding socket for pressure transmitter | <ul style="list-style-type: none"> Standard flush diaphragm version: G ½" B or G 1" B Hygienic flush diaphragm version: G 1" B (hygienic) Detailed information can be found in chapter "4. Product accessories" on page 8. |
| Performance data | |
| Temperature coefficient (Tc) | In compensated T° range |
| Average Tc of zero | |
| Standard version <0.4 bar | ≤±0.4 % of measuring span /10K |
| Standard version ≥0.4 bar | ≤±0.2 % of measuring span /10K |
| Flush diaphragm version (standard + hygienic) | ≤±0.2 % of measuring span /10K (measuring range >0.25 bar); ≤±0.4 % of measuring span /10K (measuring range ≤0.25 bar) |
| Average Tc of Span | |
| Standard version <0.4 bar | ≤±0.2 % of measuring span /10K |
| Standard version ≥0.4 bar | ≤±0.2 % of measuring span /10K |
| Flush diaphragm version (standard + hygienic) | ≤±0.2 % of measuring span /10K |
| Adjustability: Zero / span | ±5 % |
| Response time | |
| Standard version <0.4 bar | ≤1 ms |
| Standard version ≥0.4 bar | ≤3 ms |
| Flush diaphragm version (standard + hygienic) | ≤2 ms |
| Measurement deviation | ≤0.5 % of measuring span (2-point calibration) ¹⁾ ≤0.25 % of measuring span (Best Fit Straight Line, BFSL) ¹⁾ |
| Hysteresis | ≤0.1 % of measuring span |
| Repeatability | ≤0.1 % of measuring span |
| 1-year stability | |
| Standard version <0.4 bar | ≤±0.2 % of measuring span (at reference conditions) |
| Standard version ≥0.4 bar | <ul style="list-style-type: none"> ≤±0.1 % of measuring span ≤±0.2 % of measuring span (with special measuring ranges and measuring ranges <1 bar (15 psi)) |
| Flush diaphragm version (standard + hygienic) | ≤±0.2 % of measuring span (at reference conditions) |

Electrical data

| | |
|---|---|
| Operating voltage [Vs] | Filtered and regulated connection to main supply: permanent (through external SELV (Safety Extra Low Voltage) and LPS (Limited Power Source) power supply) |
| Standard version <0.4 bar | 10...30 V DC |
| Standard version ≥0.4 bar | 8...36 V DC |
| Flush diaphragm version (standard + hygienic) | 10...30 V DC |
| Reversed polarity of DC | Yes |
| Overvoltage protection | Yes |
| Short circuit protection | Yes |
| Power Source (not supplied) | Limited power source according to UL/EN 60950-1 standards or limited energy circuit according to UL/EN 61010-1 §9.4 |
| Output signal | Standard 4...20 mA, 2 wires |

Load in Ω

| | |
|---|--|
| Standard version <0.4 bar | $\leq (V_s [V] - 10 [V]) / 0.02 [A]$ |
| Standard version ≥0.4 bar | $\leq (V_s [V] - 7.5 [V]) / 0.023 [A]$ |
| Flush diaphragm version (standard + hygienic) | $\leq (V_s [V] - 10 [V]) / 0.02 [A]$ |

Media data**Fluid temperature**

| | |
|----------------------------------|-------------------------------|
| Standard version | -30...+100 °C (-22...+212 °F) |
| Standard flush diaphragm version | -30...+100 °C (-22...+212 °F) |
| Hygienic flush diaphragm version | -20...+150 °C (-4...+302 °F) |

Process/Port connection & communication**Process connection**

| | |
|-------------------------|--|
| Standard version | <ul style="list-style-type: none"> G ½" B (according to EN837) NPT ½" B (according to ANSI/ASME B1.20.1) |
| Flush diaphragm version | <ul style="list-style-type: none"> G 1" B standard with O-ring (range up to 1.6 bar) G ½" B standard with O-ring (range up to >1.6 bar) G 1" B hygienic version (all ranges) |
| Electrical connection | 4 pin cable plug according to EN 175301-803 form A |

Approvals and certificates**Standards**

| | |
|--|--|
| Protection class according to IEC/EN 60529 | IP65 with device wired and with cable plug mounted and tightened |
|--|--|

Directives

| | |
|-------------------------------|--|
| CE directives | The applied standards, which verify conformity with the EU Directives, can be found on the EU Type Examination Certificate and/or the EU Declaration of conformity (if applicable) |
| Pressure equipment directives | Complying with Article 4, Paragraph 1 of 2014/68/EU directive Detailed information on the pressure equipment directive can be found in chapter "2.1. Pressure Equipment Directive" on page 5. |

Environment and installation**Ambient temperature****Operation**

| | |
|---|------------------------------|
| Standard version <0.4 bar | -20...+80 °C (-4...+176 °F) |
| Standard version ≥0.4 bar | -30...+100 °C (-4...+212 °F) |
| Flush diaphragm version (standard + hygienic) | -20...+80 °C (-4...+176 °F) |

Storage

| | |
|---|-------------------------------|
| Standard version <0.4 bar | -40...+100 °C (-40...+212 °F) |
| Standard version ≥0.4 bar | -40...+70 °C (-40...+158 °F) |
| Flush diaphragm version (standard + hygienic) | -40...+100 °C (-4...+212 °F) |

1.) calibrated in vertical mounting position with pressure connection bottom

2. Approvals

2.1. Pressure Equipment Directive

The device conforms to Article 4, Paragraph 1 of the Pressure Equipment Directive 2014/68/EU under the following conditions:

Device used on a pipe

Note:

- The data in the table is independent of the chemical compatibility of the material and the fluid.
- PS = maximum admissible pressure, DN = nominal diameter of the pipe

| Type of fluid | Conditions |
|--|-------------------------------------|
| Fluid group 1, Article 4, Paragraph 1.c.i | DN ≤ 25 |
| Fluid group 2, Article 4, Paragraph 1.c.i | DN ≤ 32 or PS*DN ≤ 1000 |
| Fluid group 1, Article 4, Paragraph 1.c.ii | DN ≤ 25 or PS*DN ≤ 2000 |
| Fluid group 2, Article 4, Paragraph 1.c.ii | DN ≤ 200 or PS ≤ 10 or PS*DN ≤ 5000 |

Device used on a vessel

Note:

- The data in the table is independent of the chemical compatibility of the material and the fluid.
- PS = maximum admissible pressure, V = vessel volume

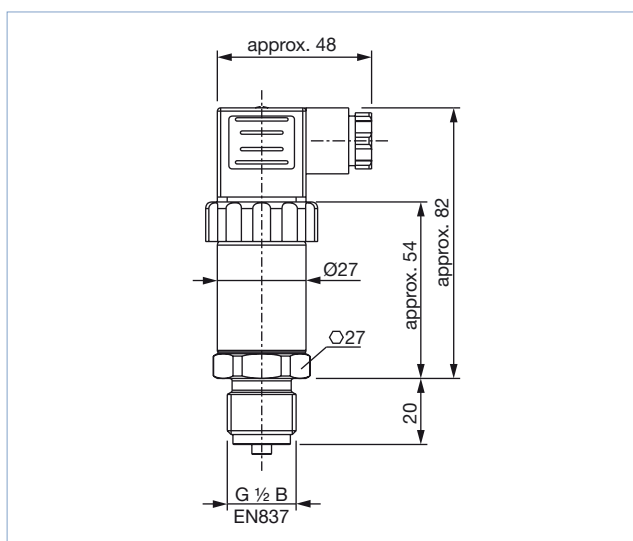
| Type of fluid | Conditions |
|--|---|
| Fluid group 1, Article 4, Paragraph 1.a.i | V > 1 L and PS*V ≤ 25 bar.L or PS ≤ 200 bar |
| Fluid group 2, Article 4, Paragraph 1.a.i | V > 1 L and PS*V ≤ 50 bar.L or PS ≤ 1000 bar |
| Fluid group 1, Article 4, Paragraph 1.a.ii | V > 1 L and PS*V ≤ 200 bar.L or PS ≤ 500 bar |
| Fluid group 2, Article 4, Paragraph 1.a.ii | PS > 10 bar and PS*V ≤ 10000 bar.L or PS ≤ 1000 bar |

3. Dimensions

3.1. Standard version <0.4 bar with process connection G ½" B

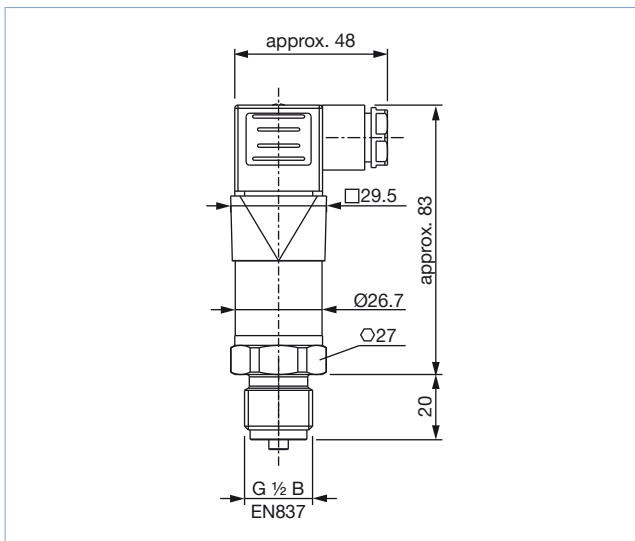
Note:

Dimensions in mm



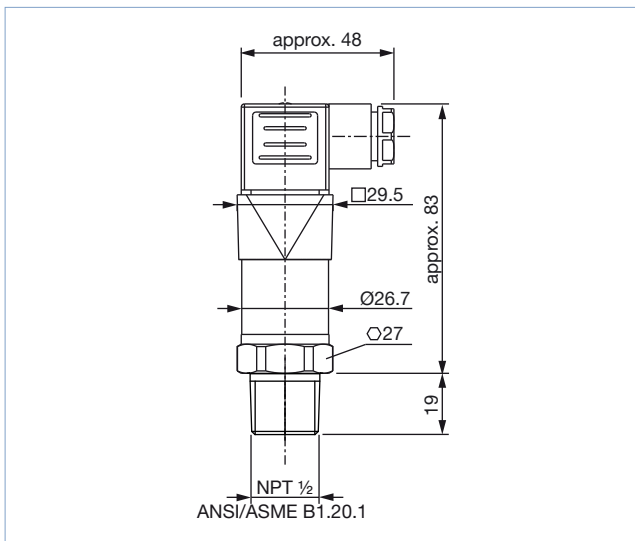
3.2. Standard version ≥ 0.4 bar with process connection G $\frac{1}{2}$ " B

Note:
Dimensions in mm



3.3. Standard version ≥ 0.4 bar with process connection NPT $\frac{1}{2}$ " B

Note:
Dimensions in mm

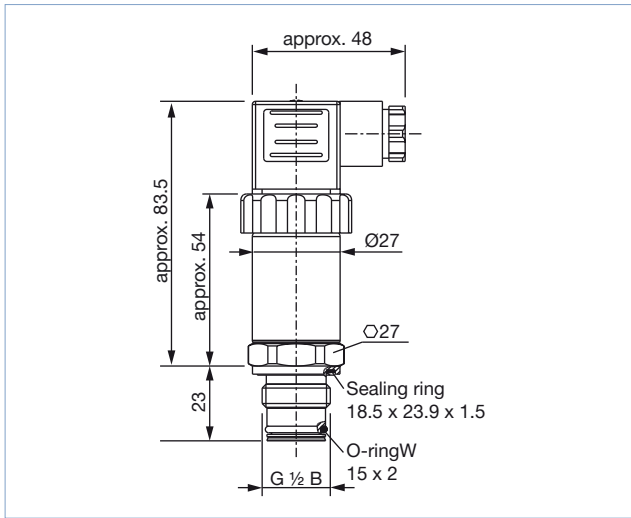


DTS 1000356452 EN Version: D Status: RL (released | freigegeben | validé) printed: 09.06.2020

3.4. Standard flush diaphragm version with process connection G 1/2" B

Note:

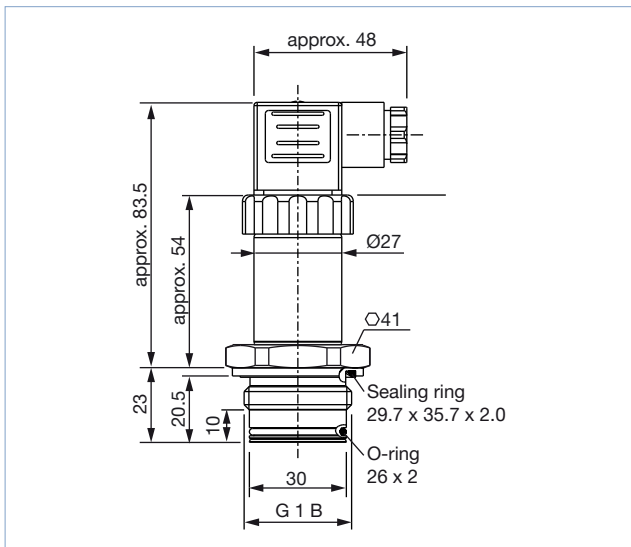
Dimensions in mm



3.5. Standard flush diaphragm version with process connection G 1" B

Note:

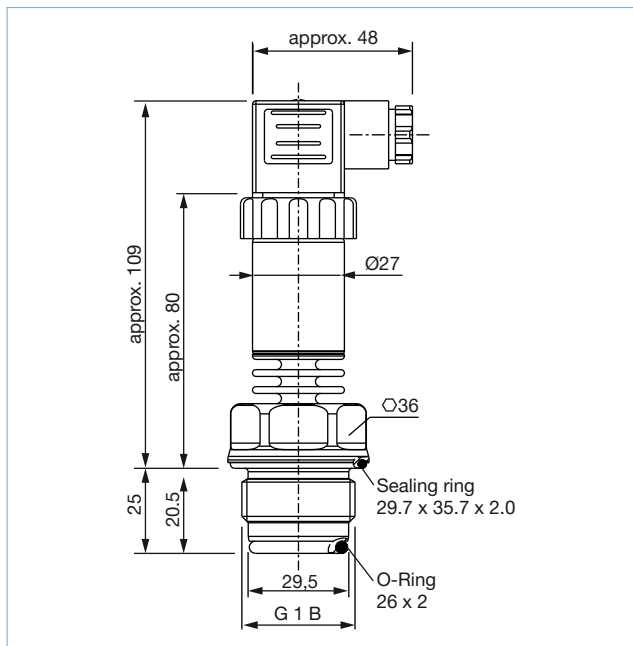
Dimensions in mm



3.6. Hygienic flush diaphragm version with process connection G 1" B

Note:

Dimensions in mm



4. Product accessories

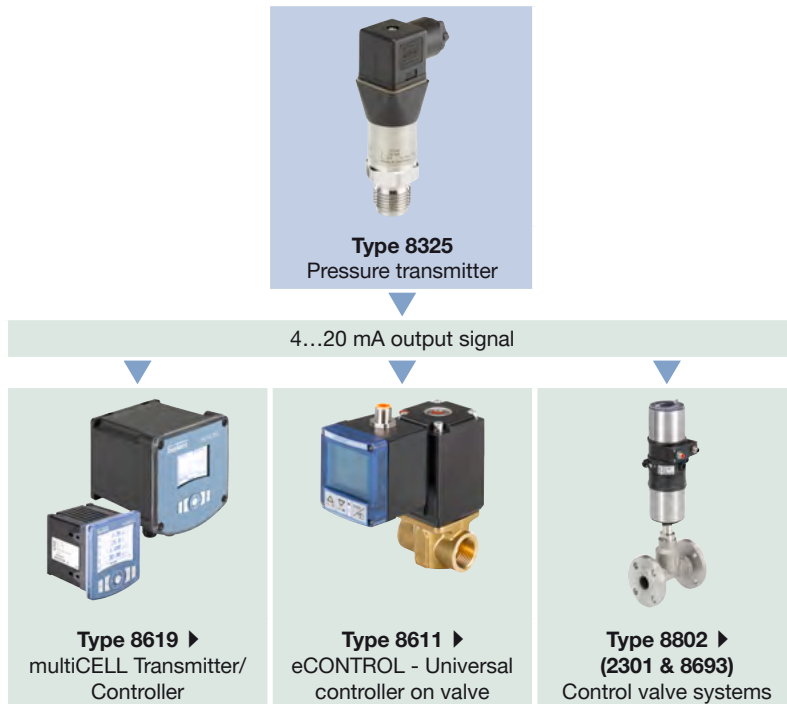
Note:

Pressure transmitter with flush diaphragm can be installed via a process adapter with welding connection (e.g. for welding to tanks). Measuring instrument and process adapter can be easily fastened or loosened with a wrench.

| Accessory | Description |
|-----------|--|
| | Welding socket for pressure transmitter with flush diaphragm: Standard version with process connection G 1/2" B Material: stainless steel 1.4435 (316L); UNS S31603 Surface roughness of wetted parts Ra < 0.4 µm Nominal pressure PN 40 |
| | Welding socket for pressure transmitter with flush diaphragm: Standard version with process connection G 1" B Material: stainless steel 1.4435 (316L); UNS S31603 Surface roughness of wetted parts Ra < 0.4 µm Nominal pressure PN 40 |
| | Welding socket for pressure transmitter with flush diaphragm: Hygienic version with process connection G 1" B Material: stainless steel 1.4435 (316L); UNS S31603 Surface roughness of wetted parts Ra < 0.4 µm Nominal pressure PN 40 |


5. Networking and combination with other Bürkert products

Example:



6. Ordering information

6.1. Bürkert eShop – Easy ordering and quick delivery




Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

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6.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

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6.3. Ordering chart

Note:

The following values apply exclusively to the standard version with process connection G 1/2" B

| Pressure range [bar] | Pressure max [bar] | Power supply [V DC] | Output signal [mA] | Article no. |
|-------------------------|-----------------------|------------------------|-----------------------|-------------|
| 0...0.10 | 1 | 10...30 | 4...20 | 569494 |
| 0...0.16 | 1.5 | 10...30 | 4...20 | 569495 |
| 0...0.25 | 2 | 10...30 | 4...20 | 570141 |
| 0...0.40 | 1.2 | 8...36 | 4...20 | 569090 |
| 0...0.60 | 1.8 | 8...36 | 4...20 | 569091 |
| 0...1.00 | 3 | 8...36 | 4...20 | 569092 |
| 0...1.60 | 4.8 | 8...36 | 4...20 | 569093 |
| 0...2.50 | 7.5 | 8...36 | 4...20 | 569094 |
| 0...4.00 | 12 | 8...36 | 4...20 | 569095 |
| 0...6.00 | 18 | 8...36 | 4...20 | 569096 |
| 0...10.0 | 20 | 8...36 | 4...20 | 569097 |
| 0...16.0 | 32 | 8...36 | 4...20 | 569098 |
| 0...25.0 | 50 | 8...36 | 4...20 | 569099 |

Note:





The following values apply exclusively to the standard version with process connection NPT 1/2" B

| Pressure range [PSI] | Pressure max [PSI] | Power supply [V DC] | Output signal [mA] | Article no. |
|-------------------------|-----------------------|------------------------|-----------------------|-------------|
| 0...10 | 30 | 8...36 | 4...20 | 569100 |
| 0...15 | 45 | 8...36 | 4...20 | 569101 |
| 0...25 | 45 | 8...36 | 4...20 | 569102 |
| 0...60 | 180 | 8...36 | 4...20 | 569103 |
| 0...100 | 300 | 8...36 | 4...20 | 569104 |
| 0...150 | 300 | 8...36 | 4...20 | 569176 |
| 0...250 | 500 | 8...36 | 4...20 | 569177 |
| 0...400 | 800 | 8...36 | 4...20 | 569178 |

Note:



The following values apply exclusively to the flush diaphragm version (standard or hygienic).

| Pressure range [bar] | Pressure max [bar] | Power supply [V DC] | Output signal [mA] | Article no. | | |
|-------------------------|-----------------------|------------------------|-----------------------|----------------------|--------------------|--------------------|
| | | | | Standard G 1/2" B | Standard G 1" B | Hygienic G 1" B |
| 0...0.10 | 1 | 10...30 | 4...20 | - | 569485 | 569478 |
| 0...0.16 | 1.5 | 10...30 | 4...20 | - | 569486 | - |
| 0...0.25 | 2 | 10...30 | 4...20 | - | - | - |
| 0...0.40 | 2 | 10...30 | 4...20 | - | 569487 | 569479 |
| 0...0.60 | 4 | 10...30 | 4...20 | - | - | 569480 |
| 0...1.00 | 5 | 10...30 | 4...20 | - | 569488 | 569481 |
| 0...1.60 | 10 | 10...30 | 4...20 | - | - | 569482 |
| 0...2.50 | 10 | 10...30 | 4...20 | 569489 | - | 569483 |
| 0...4.00 | 17 | 10...30 | 4...20 | - | - | - |
| 0...6.00 | 35 | 10...30 | 4...20 | 569490 | - | - |
| 0...10.0 | 35 | 10...30 | 4...20 | 569491 | - | 569484 |
| 0...16.0 | 80 | 10...30 | 4...20 | 569492 | - | - |
| 0...25.0 | 50 | 10...30 | 4...20 | 569493 | - | - |

| Further versions on request | |
|--|---|
|  Process connection <ul style="list-style-type: none"> • EN837 G ¼" B; • DIN 3852-E G ½" A or G ¼" A • ASME NPT ½", NPT ¼"... |  Pressure <ul style="list-style-type: none"> • Relative pressure: up to 1000 bar or 10000 PSI • Absolute pressure: up to 40 bar or 500 PSI |
|  Electrical connection <p>M12 connector, EN 175301-803 form C, cable connection...</p> |  Additional <ul style="list-style-type: none"> • Output signal 0...10 V DC, 0...5 V DC,... • Measurement deviation at 0.125 % BFSL (Best Fit Straight Line) |

6.4. Ordering chart accessories

Accessories for pressure transmitter with flush diaphragm

| Description | Article no. |
|--|--|
| Weld-on socket for standard flush diaphragm version with process connection G ½" | 443295  |
| Weld-on socket for standard flush diaphragm version with process connection G 1" | 444137  |
| Weld-on socket for hygienic flush diaphragm version with process connection G 1" | 443296  |

