



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

- Piezoresistive or thin film sensor element
- Available with hygienic flush diaphragm
- Housing and wetted parts in corrosion-resistant stainless steel
- Standard signal 4...20 mA for connection to automation systems
- Plug for fast installation and service



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 2301
Pneumatically operated 2 way Globe Control Valve | ▶ |

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 different measurement functions.

For technical reasons, the piezoresistive sensor element is used for measuring ranges up to 16 bar and thin film sensor element for the measuring range of 25 bar. All wetted parts are made of stainless steel and completely welded. Internal seal elements, which could restrict the choice of measuring media, are excluded.

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1. General Technical Data

Product properties

Material

Please make sure the device materials are compatible with the fluid you are using.
Detailed information can be found in chapter **"3.1. Chemical Resistance Chart – Bürkert resistApp"** on page 5.

Non wetted parts

Housing Stainless steel 1.4301 (304)

Wetted parts

Standard version Stainless steel 1.4471 (316Ti)
Standard flush diaphragm version Stainless steel 1.4471 (316Ti), FKM seal
Hygienic flush diaphragm version Stainless steel 1.4404 (316L), EPDM seal
Internal transmitting liquid Synthetic Oil (for standard version with pressure range < 16 bar (232 PSI) and for all flush diaphragm units)

Dimensions Detailed information can be found in chapter **"4. Dimensions"** on page 6.

Compatibility Any pipe with sensor connection

- for standard version: G ½" A according to DIN16288
- for flush diaphragm version:
 - G 1" B with O-ring (range up to 1.6 bar)
 - G½" B with O-ring (range > 1.6 bar)
 - G 1" B hygienic version (all ranges)

Measurement technology Piezo (≤ 16 bar) / Thin film (25 bar)

Measured variable Relative pressure

Measuring range (Pressure reference = relative pressure [atmospheric])

- 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
- In PSI on request

Compensated T° range 0...+80 °C (+32...+176 °F)
Detailed information can be found in chapter **"7.3. Ordering chart"** on page 9 .

Product accessories

Welding socket for pressure transmitter

- 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 **"5. Product accessories"** on page 8.

Performance data

Temperature coefficient (Tc) In compensated T° range

Average Tc of zero

Standard version ≤±0.4% of full scale/10K
Flush diaphragm version ≤-0.2...+0.3% of full scale/10K

Average Tc of Span

Standard and flush diaphragm version ≤±0.2% of full scale/10K
Adjustability: Zero / span ± 10 %
Response time ≤ 1 ms
Measurement deviation ≤0.5% of full scale (2-point calibration)¹⁾
≤0.25% of full scale (Best Fit Straight Line, BFSL)¹⁾
Hysteresis ≤0.1% of full scale
Repeatability ≤0.05% of full scale
1-year stability ≤±0.2% of full scale (at reference conditions)

Electrical data

Operating voltage [Vs] 10...30 V DC, filtered and regulated
connection to main supply: permanent (through external SELV (Safety Extra Low Voltage) and LPS (Limited Power Source) power supply)

Power source (not supplied) The auxiliary energy of the pressure sensor must meet SELV requirements; optionally, an energy-limited current circuit according to section 9.3 of DIN EN 61010-1 and UL 61010-1 can be used.

Reversed polarity of DC Yes

Overvoltage protection Yes

Short circuit protection Yes

Output signal Standard 4...20 mA, 2 wires

Load in Ω ≤(Vs [V] - 10 [V])/0.02 [A]

Media data**Fluid temperature**

Standard version	-20...+100 °C (-4...+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
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Approvals and certificates**Standards**

Protection class according to IEC/EN 60529	IP65 under the following conditions: device wired and with cable plug mounted and tightened
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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	-20...+80 °C (-4...+176 °F)
Standard flush diaphragm version	-20...+80 °C (-4...+176 °F)
Hygienic flush diaphragm version	-20...+80 °C (-4...+176 °F)

Storage

Standard version	-40...+100 °C (-40...+212 °F)
Standard flush diaphragm version	-40...+100 °C (-40...+212 °F)
Hygienic flush diaphragm version	-20...+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

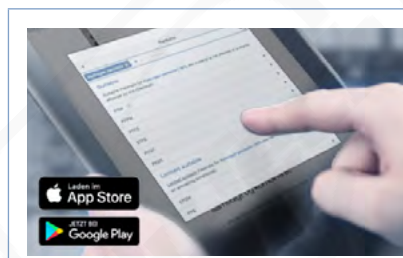
Note:

- 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. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

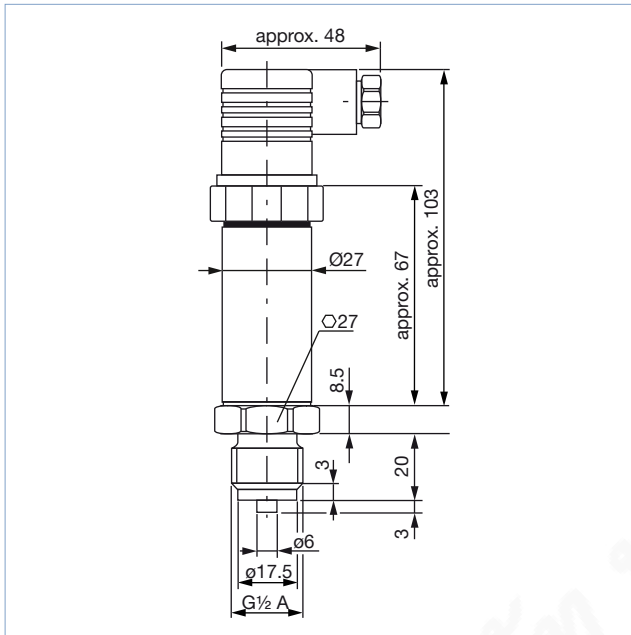
[Start Chemical Resistance Check](#)

4. Dimensions

4.1. Standard version with process connection G 1/2" A

Note:

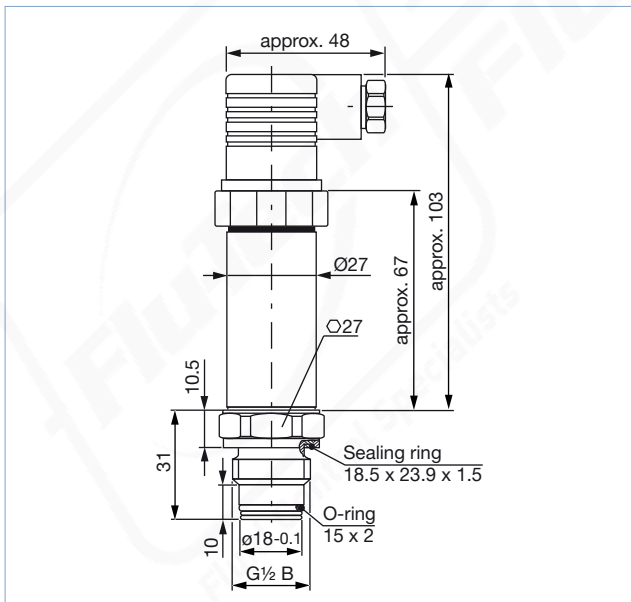
Dimensions in mm



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

Note:

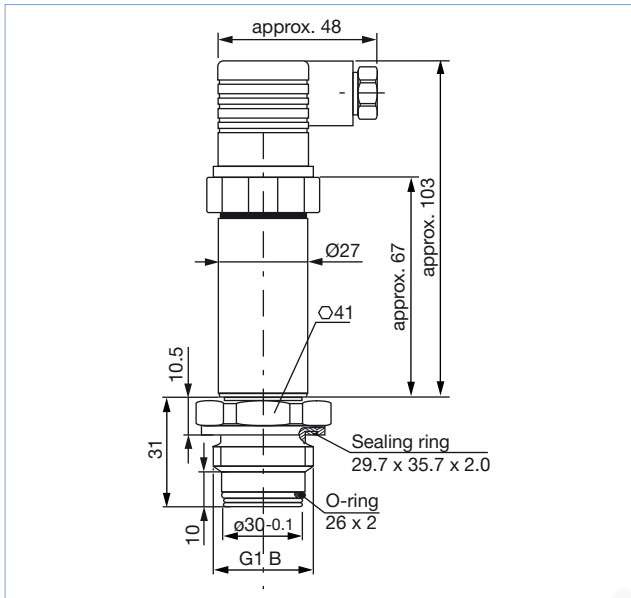
Dimensions in mm



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

Note:

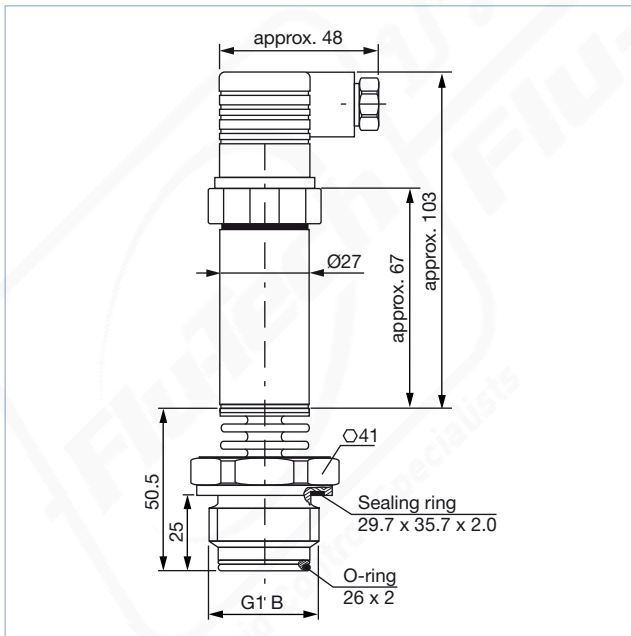
Dimensions in mm



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

Note:

Dimensions in mm



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5. 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

6. Networking and combination with other Bürkert products

Example:




4...20 mA output signal



7. Ordering information

7.1. 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.

[Order online now](#)

7.2. 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.

[Try out our product filter](#)

7.3. Ordering chart

Pressure range [bar]	Pressure max. [bar]	Bursting pressure [bar]	Operating voltage [V DC]	Output signal [mA]	Article no.			
					Standard G ½" A	Flush diaphragm		
					Standard G ½" B	Standard G 1" B	Hygienic G 1" B	
0...0.10	1	2	10...30	4...20	417692	-	552063	551803
0...0.16	1.5	2	10...30	4...20	417693	-	552064	-
0...0.25	2	2	10...30	4...20	417694	-	-	-
0...0.40	2	2	10...30	4...20	417695	-	552065	551675
0...0.60	4	4	10...30	4...20	417696	-	-	551676
0...1.00	5	5	10...30	4...20	417697	-	552066	551677
0...1.60	10	10	10...30	4...20	417698	-	-	551678
0...2.50	10	10	10...30	4...20	417699	-	-	551679
0...4.00	17	17	10...30	4...20	417700	-	-	-
0...6.00	35	35	10...30	4...20	417701	552067	-	-
0...10.0	35	35	10...30	4...20	417702	552068	-	551684
0...16.0	80	80	10...30	4...20	417703	552069	-	-
0...25.0	50	250	10...30	4...20	417704	-	-	-

7.4. 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