






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.

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1. General technical data

Product properties

Materials 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 of the standard or with flush diaphragm version < 0.4 bar Stainless steel 1.4301 (304)

Housing of the standard or with flush diaphragm version ≥ 0.4 bar Stainless steel 1.4471 (316Ti)

Wetted parts

Standard version < 0.4 bar Stainless steel 1.4471 (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 1.4471 (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 < 10 bar (150 PSI) and for all flush diaphragm units)

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
0...10; 15; 25; 60; 100; 150; 250; 400 PSI

Electrical data

Electrical connections 4 pin cable plug according to EN 175301-803 form A

Power supply [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 Protected

Overvoltage protection Yes

Short circuit protection Yes

Output 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) $\leq (V_s [V] - 10 [V]) / 0.02 [A]$

Performance data

Compensated T° range 0...+80 °C (+32...+176 °F)

Temperature coefficient (Tc) In compensated T° range

Average Tc of zero

Standard version < 0.4 bar $\leq \pm 0.4\%$ of full scale/10K

Standard version ≥ 0.4 bar $\leq \pm 0.2\%$ of full scale/10K

Flush diaphragm version (standard + hygienic) $\leq \pm 0.2\%$ of full scale/10K (measuring range > 0.25 bar);
 $< \pm 0.4\%$ of full scale/10K (measuring range ≤ 0.25 bar)

Average Tc of Span

Standard version < 0.4 bar $\leq \pm 0.2\%$ of full scale/10K

Standard version ≥ 0.4 bar $\leq \pm 0.2\%$ of full scale/10K

Flush diaphragm version (standard + hygienic) $\leq \pm 0.2\%$ of full scale/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 ^{1.)}	≤ 0.5 % of full scale (2-point calibration) ^{2.)} ≤ 0.25 % of full scale (Best Fit Straight Line, BFSL) ^{2.)}
Hysteresis	≤ 0.1 % of full scale
Non-Repeatability	≤ 0.1 % of full scale
1-year stability	≤ ± 0.2 % of full scale (at reference conditions)

Medium data**Fluid temperature**

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

Approvals and Certificates**Standards**

Protection rating according to IEC/ EN 60529	IP65 with 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

Product connections**Process connection**

Standard version	G ½" B (according to EN837); NPT ½" B (according to ANSI/ASME B1.20.1)
Flush diaphragm version	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)

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)

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)

1.) = "measurement bias" as defined in the standard JCGM 200:2012

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

2. Approvals and certificates

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 (PS = maximum admissible pressure; DN = nominal diameter of the pipe).

Note:

The data in the table are independent of the chemical compatibility of the material and the fluid.

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 (PS = maximum admissible pressure).

Note:

The data in the table are independent of the chemical compatibility of the material and the fluid.

Type of fluid	Conditions
Fluid group 1, Article 4, Paragraph 1.a.i	PS ≤ 200 bar
Fluid group 2, Article 4, Paragraph 1.a.i	PS ≤ 1000 bar
Fluid group 1, Article 4, Paragraph 1.a.ii	PS ≤ 500 bar
Fluid group 2, Article 4, Paragraph 1.a.ii	PS ≤ 1000 bar

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



We support you in the selection of suitable sealing and housing materials with our tool for checking chemical resistance. Verify your combination of media and materials to ensure the reliability and durability of our products in your individual application.

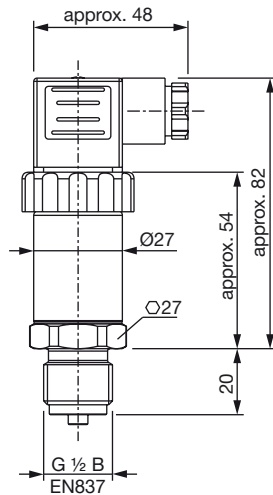
View Chemical Resistance Chart ▶

4. Dimensions

4.1. Standard version <0.4 bar with process connection G 1/2" B

Note:

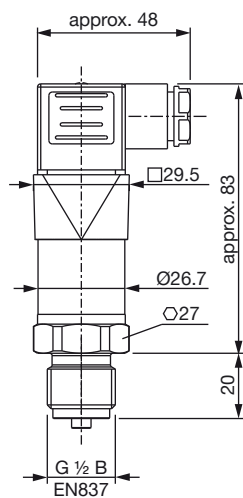
Specifications in mm



4.2. Standard version ≥0.4 bar with process connection G 1/2" B

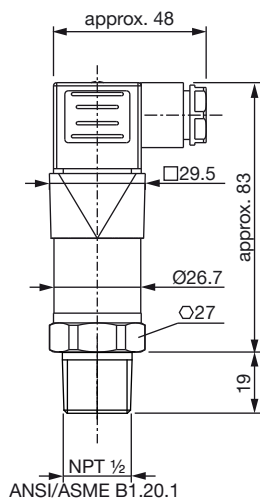
Note:

Specifications in mm



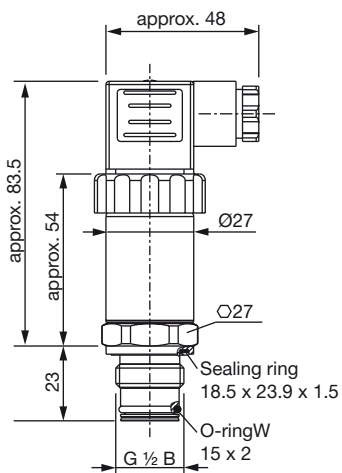
4.3. Standard version ≥ 0.4 bar with process connection NPT $\frac{1}{2}$ " B

Note:
Specifications in mm



4.4. Standard flush diaphragm version with process connection G $\frac{1}{2}$ " B

Note:
Specifications in mm

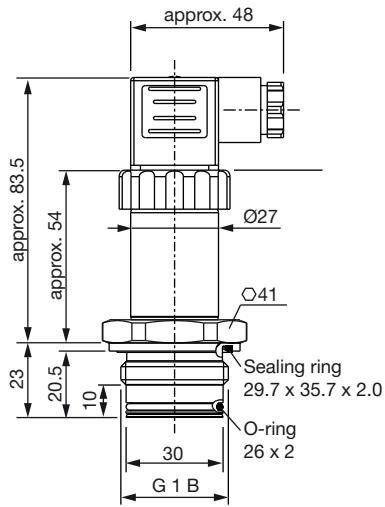


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4.5. Standard flush diaphragm version with process connection G 1" B

Note:

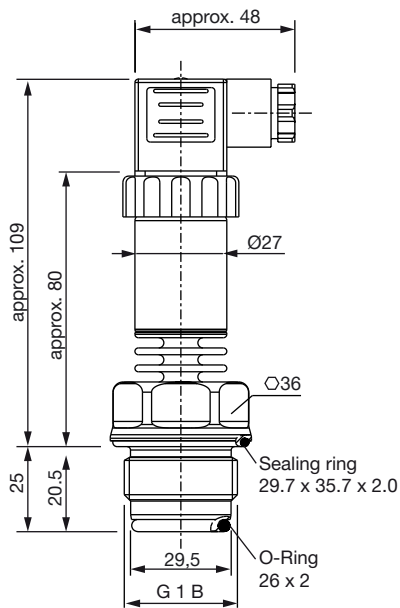
Specifications in mm



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

Note:

Specifications in mm



5. Product accessories

5.1. Accessory

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 PN40
	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 PN40
	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 PN40

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














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7.2. Ordering chart









Note:

The following values apply exclusively to the standard version with process connection G ½" 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 ½" 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 ½" 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 EN837 G ¼" B; DIN 3852-E G ½" A or G ¼" A ASME NPT ½", NPT ¼"...	 Pressure Relative pressure: up to 1000 bar or 10000 PSI Absolute pressure: up to 40 bar or 500 PSI
 Electrical connection M12 connector, EN 175301-803 form C, cable connection...	 Additional Output signal 0...10 V DC, 0...5 V DC,... Measurement deviation at 0.125 % BFSL (Best Fit Straight Line)

7.3. 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 

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For up-to-date addresses
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