






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.

DTS 1000356452 EN Version: G Status: RL (released | freigegeben | valide) printed: 28.11.2022

Table of contents

1. General technical data	3
<hr/>	
2. Approvals	6
2.1. Pressure equipment directive	6
Device used on a pipe	6
Device used on a vessel	6
<hr/>	
3. Materials	6
3.1. Chemical Resistance Chart – Bürkert resistApp.....	6
<hr/>	
4. Dimensions	7
4.1. Standard variant <0.4 bar with process connection G ½" B.....	7
4.2. Standard variant ≥0.4 bar with process connection G ½" B.....	7
4.3. Standard variant ≥0.4 bar with process connection NPT ½" B	8
4.4. Standard flush diaphragm variant with process connection G ½" B.....	8
4.5. Standard flush diaphragm variant with process connection G 1" B.....	9
4.6. Hygienic flush diaphragm variant with process connection G 1" B	9
<hr/>	
5. Product accessories	10
<hr/>	
6. Networking and combination with other Bürkert products	10
<hr/>	
7. Ordering information	11
7.1. Bürkert eShop – Easy ordering and quick delivery.....	11
7.2. Bürkert product filter.....	11
7.3. Ordering chart.....	11
Standard variant with process connection G ½" B	11
Standard variant with process connection NPT ½" B	11
Flush diaphragm variant (standard or hygienic) with process connection G ½" B or G 1" B.....	12
7.4. Ordering chart accessories.....	12
Weld-on socket	12
Seals	12

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 6.	
Non wetted parts	
Housing	<ul style="list-style-type: none"> Standard variant <0.4 bar: stainless steel 1.4301 (304) Standard variant ≥0.4 bar or with flush diaphragm variant: stainless steel 1.4571 (316Ti)
Female cable plug/male fixed plug	PBT/PET GF30
Wetted parts	
Process connection	<ul style="list-style-type: none"> Standard variant <0.4 bar: stainless steel 1.4571 (316Ti) Standard variant ≥0.4 bar: <ul style="list-style-type: none"> 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 variant: stainless steel 1.4571 (316Ti), FKM seal Hygienic flush diaphragm variant: stainless steel 1.4404 (316L), EPDM seal
Measuring element	<ul style="list-style-type: none"> Standard variant <0.4 bar: stainless steel 1.4571 (316Ti) Standard variant ≥0.4 bar: <ul style="list-style-type: none"> 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 variant: stainless steel 1.4571 (316Ti), FKM seal Hygienic flush diaphragm variant: stainless steel 1.4404 (316L), EPDM seal
Seal	<ul style="list-style-type: none"> Standard flush diaphragm variant: FKM Hygienic flush diaphragm variant: EPDM
Internal transmitting liquid	Synthetic Oil (for standard variants with pressure range < 10 bar (150 PSI) and for all flush diaphragm units)
Compatibility	Any pipe with sensor connection <ul style="list-style-type: none"> for standard variant: G ½" A according to DIN16288 for flush diaphragm variant: <ul style="list-style-type: none"> G 1" B with O-ring (range up to 1.6 bar) G ½" B with O-ring (range > 1.6 bar) G 1" B hygienic variant (all ranges)
Dimensions	Detailed information can be found in chapter “4. Dimensions” on page 7.
Measured quantity	Relative pressure
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 Detailed information can be found in chapter “7.3. Ordering chart” on page 11 .
Product accessory	
Welding socket for pressure transmitter	<ul style="list-style-type: none"> Standard flush diaphragm variant: G ½" B or G 1" B Hygienic flush diaphragm variant: G 1" B (hygienic) Detailed information can be found in chapter “5. Product accessories” on page 10.

Performance data	
Compensated ambient temperature range (Tamb)	0...+80 °C (+32...+176 °F)
Temperature coefficient (Tc)	In compensated T° range
Average Tc of zero	<ul style="list-style-type: none"> Standard variant <0.4 bar: $\leq \pm 0.4\%$ of measuring span /10K Standard variant ≥ 0.4 bar: $\leq \pm 0.2\%$ of measuring span /10K Flush diaphragm variant (standard + hygienic): <ul style="list-style-type: none"> $\leq \pm 0.2\%$ of measuring span /10K (measuring range >0.25 bar) $< \pm 0.4\%$ of measuring span /10K (measuring range ≤ 0.25 bar)
Average Tc of measuring span	<ul style="list-style-type: none"> Standard variant <0.4 bar: $\leq \pm 0.2\%$ of measuring span /10K Standard variant ≥ 0.4 bar: $\leq \pm 0.2\%$ of measuring span /10K Flush diaphragm variant (standard + hygienic): $\leq \pm 0.2\%$ of measuring span /10K
Adjustability: Zero / span	$\pm 5\%$
Measurement deviation	<ul style="list-style-type: none"> $\leq 0.5\%$ of measuring span (2-point calibration)¹⁾ $\leq 0.25\%$ of measuring span (Best Fit Straight Line, BFSL)¹⁾
Hysteresis	$\leq 0.1\%$ of measuring span
Repeatability	$\leq 0.1\%$ of measuring span
Response time	<ul style="list-style-type: none"> Standard variant <0.4 bar: ≤ 1 ms Standard variant ≥ 0.4 bar: ≤ 3 ms Flush diaphragm variant (standard + hygienic): ≤ 2 ms
Stability	<p>Over 1 year</p> <ul style="list-style-type: none"> Standard variant <0.4 bar: $\leq \pm 0.2\%$ of measuring span (at reference conditions) Standard variant ≥ 0.4 bar: <ul style="list-style-type: none"> $\leq \pm 0.1\%$ of measuring span $\leq \pm 0.2\%$ of measuring span (with special measuring ranges and measuring ranges < 1 bar (15 psi)) Flush diaphragm variant (standard + hygienic): $\leq \pm 0.2\%$ of measuring span (at reference conditions)
Electrical data	
Operating voltage [U]	<ul style="list-style-type: none"> Standard variant <0.4 bar: 10...30 V DC Standard variant ≥ 0.4 bar: 8...36 V DC Flush diaphragm variant (standard + hygienic): 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)	Limited power source according to UL/EN 60950-1 standards or limited energy circuit according to UL/EN 61010-1 §9.4
DC reverse polarity protection	Yes
Overvoltage protection	Yes
Short circuit protection	Yes
Load	<ul style="list-style-type: none"> Standard variant <0.4 bar: $\leq (U [V] - 10 [V]) / 0.02 [A]$ (in Ω) Standard variant ≥ 0.4 bar: $\leq (U [V] - 7.5 [V]) / 0.023 [A]$ (in Ω) Flush diaphragm variant (standard + hygienic): $\leq (U [V] - 10 [V]) / 0.02 [A]$ (in Ω)
Output	Standard 4...20 mA, 2 wires
Media data	
Fluid temperature	<ul style="list-style-type: none"> Standard variant: -30...+100 °C (-22...+212 °F) Standard flush diaphragm variant: -30...+100 °C (-22...+212 °F) Hygienic flush diaphragm variant: -20...+150 °C (-4...+302 °F)

Process/Pipe connection & communication

Process connection	<ul style="list-style-type: none"> • Standard variant <ul style="list-style-type: none"> – G ½" B (according to EN837) – NPT ½" B (according to ANSI/ASME B1.20.1) • Flush diaphragm variant <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 variant (all ranges)
Electrical connection	4 pin cable plug according to EN 175301-803 form A

Approvals and certificates**Directives**

CE directive	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 directive	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 6.

Environment and installation**Ambient temperature**

Operation	<ul style="list-style-type: none"> • Standard variant <0.4 bar: -20...+80 °C (-4...+176 °F) • Standard variant ≥0.4 bar: -30...+100 °C (-4...+212 °F)
Storage	<ul style="list-style-type: none"> • Flush diaphragm variant (standard + hygienic): -20...+80 °C (-4...+176 °F) • Standard variant <0.4 bar: -40...+100 °C (-40...+212 °F) • Standard variant ≥0.4 bar: -40...+70 °C (-40...+158 °F) • Flush diaphragm variant (standard + hygienic): -40...+100 °C (-4...+212 °F)
Degree of protection according to IEC/EN 60529	IP65 with device wired and with cable plug mounted and tightened

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	$DN \leq 25$
Fluid group 2, article 4, paragraph 1.c.i	$DN \leq 32$ or $PS \cdot DN \leq 1000$
Fluid group 1, article 4, paragraph 1.c.ii	$DN \leq 25$ or $PS \cdot DN \leq 2000$
Fluid group 2, article 4, paragraph 1.c.ii	$DN \leq 200$ or $PS \leq 10$ or $PS \cdot DN \leq 5000$

Device used on a vessel

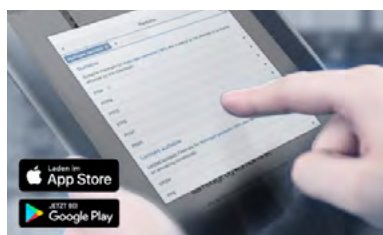
Note:

- 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 $PS \cdot V \leq 25$ bar.L or $PS \leq 200$ bar
Fluid group 2, article 4, paragraph 1.a.i	$V > 1$ L and $PS \cdot V \leq 50$ bar.L or $PS \leq 1000$ bar
Fluid group 1, article 4, paragraph 1.a.ii	$V > 1$ L and $PS \cdot V \leq 200$ bar.L or $PS \leq 500$ bar
Fluid group 2, article 4, paragraph 1.a.ii	$PS > 10$ bar and $PS \cdot V \leq 10000$ bar.L or $PS \leq 1000$ 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.

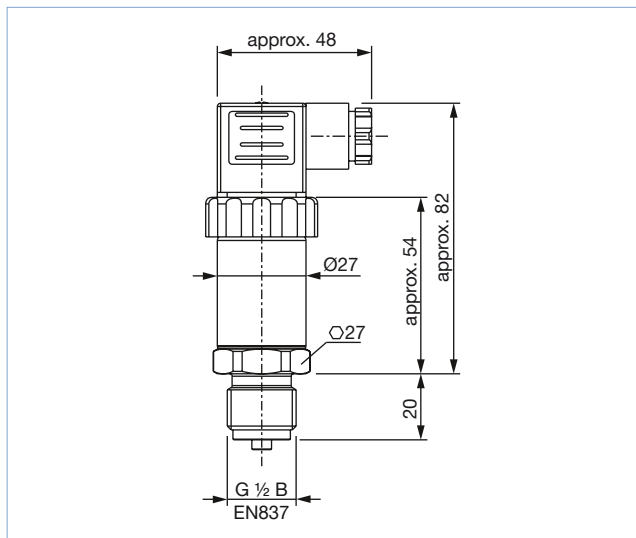
[Start Chemical Resistance Check](#)

4. Dimensions

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

Note:

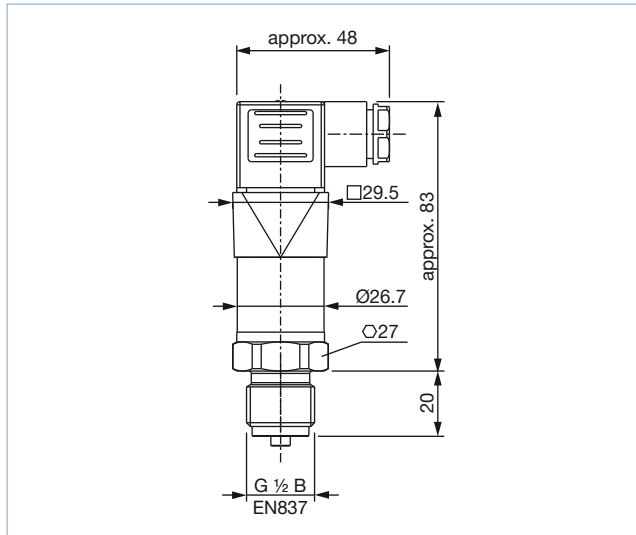
Dimensions in mm, unless otherwise stated



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

Note:

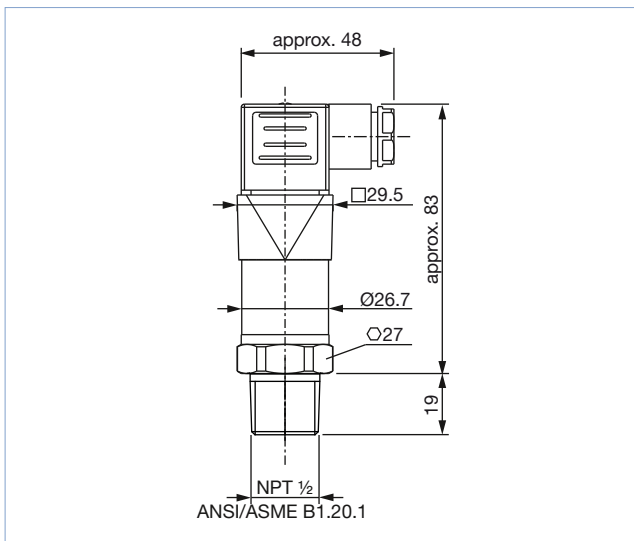
Dimensions in mm, unless otherwise stated



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

Note:

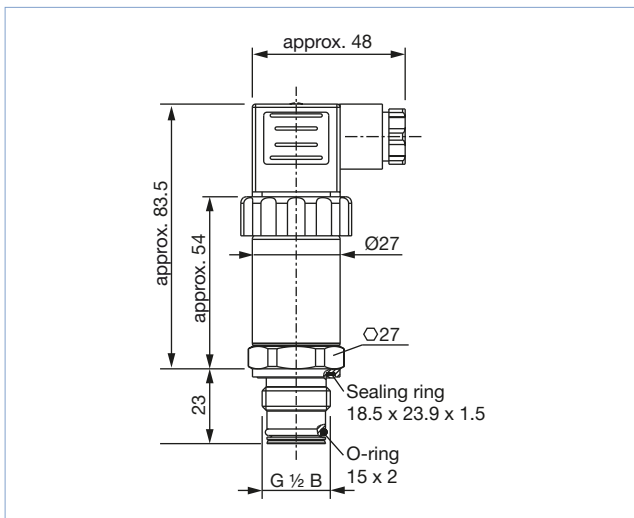
Dimensions in mm, unless otherwise stated



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

Note:

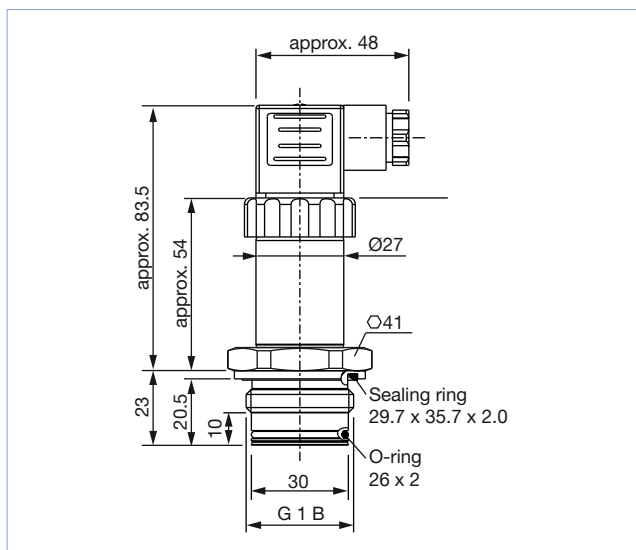
Dimensions in mm, unless otherwise stated



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

Note:

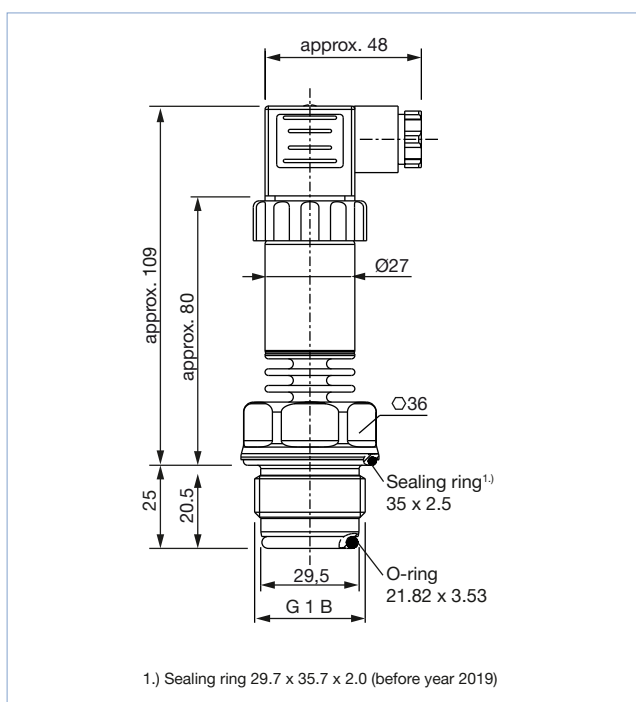
Dimensions in mm, unless otherwise stated



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

Note:

Dimensions in mm, unless otherwise stated



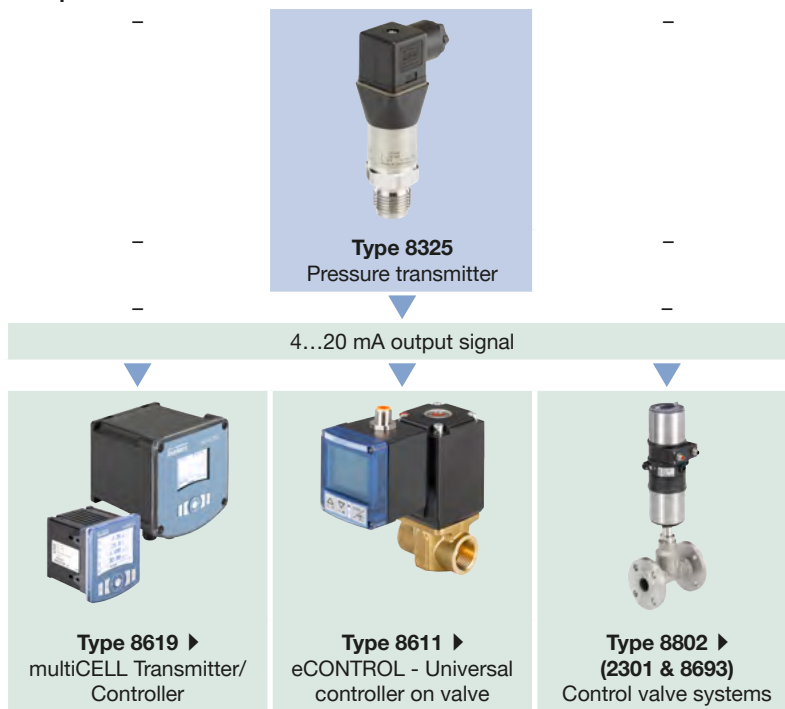
5. Product accessories

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 variant 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 variant 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 variant 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:



DTS 1000356452 EN Version: G Status: RL (released | freigegeben | valide) printed: 28.11.2022

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

Standard variant 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

Standard variant 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

Flush diaphragm variant (standard or hygienic) with process connection G ½" B or G 1" B

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 <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", etc.¹⁾ 	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 M12 connector, EN 175301-803 form C, cable connection, etc. ¹⁾	Additional <ul style="list-style-type: none"> Output signal 0...10 V DC, 0...5 V DC, etc.¹⁾ Measurement deviation at 0.125 % BFSL (Best Fit Straight Line)

1.) For other process, electrical connections or other output signal, please contact your local Bürkert office.

7.4. Ordering chart accessories

Weld-on socket

Note:

The following accessories are intended for flush diaphragm variant (standard or hygienic) with process connection G ½" B or G 1" B.

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

Seals

Note:

The following accessories are intended for flush diaphragm variant (hygienic) with process connection G 1" B.

Description	Article no.
O-ring, 21.82 x 3.53 in EPDM	562769
Sealing ring 29.7 x 35.7 x 2.0 in EPDM ^{1,2)}	566539
Sealing ring 35 x 2.5 in EPDM ^{2,3)}	573044

1.) For devices delivered before year 2019

2.) For devices purchased in the year 2019, please contact your Bürkert office or the E&C department in France in Triembach-au-Val 67220, to determine the appropriate seal dimension to be ordered.

3.) For devices delivered after year 2019

Bürkert – Close to You

For up-to-date addresses
please visit us at
www.burkert.com

DTS 1000356452 EN Version: G Status: RL (released | freigegeben | validé) printed: 28.11.2022

