Pressure Transmitter for general applications

- Piezoresistive or thin film sensor element
- Available with flush diaphragm standard or acc. to EHEDG
- Housing and wetted parts in corrosion-resistant stainless steel
- Standard signal 4-20 mA for connection to automation-system
- Connector plug for fast installation and service

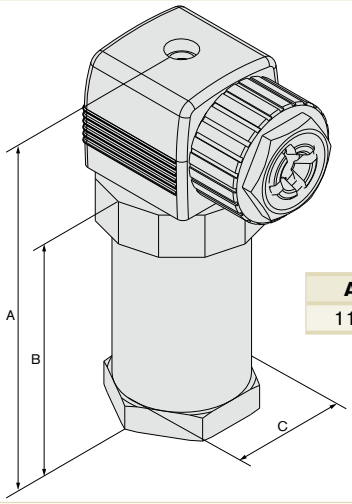
The 8323 compact pressure transmitter is designed to cover the majority of industrial applications in the field of industrial pressure measurement technology. High accuracy, compact design, robust con-struction and flexibility make this instrument universal and suitable for different meas-urement functions. For technical reasons piezoresistive sensor element is used for measuring ranges up to 16 bar and thin film sensor element for the measuring range of 25 bar. Wetted parts are made of stainless steel and completely welded. Internal seal elements, which could restrict the choice of measuring materials, are excluded.

Technical Data

Pipe diameter Standard version Flush diaphragm version	Any pipe with sensor connection: G1/2" A acc. to DIN 16288 G1" B with O-ring (range up to 1.6 bar) G1/2" B with O-ring (range > 1.6 bar) G1" B for EHEDG (all ranges) [Weld-on socket with connection G1/2"B, G1"B]
Material - Housing	Stainless steel 1.4571
Wetted parts	
Standard version	Stainless steel 1.4571 (and 1.4542 with 25 bar)
Flush diaphragm version	Stainless steel 1.4571, FKM seal
EHEDG flush diaphragm	Stainless steel 1.4571, EPDM seal
Internal transmitting liquid	Synthetic oil (only for pressure range up to 16 bar or for flush diaphragm units)
Electrical connection	4-pin cable plug,Type 2508, acc. to DIN EN 175301-803 (included in delivery)
Measurement range [Pressure reference = relative pressure (atmospheric)]	0 up to 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
Sensor element	piezo (≤ 16 bar) / thin film (≤ 25 bar)
Fluid temperature	
Std. version	-20 up to +100 °C
Std flush diaphragm version	-30 up to +100 °C
Flush diaphragm EHEDG	-20 up to +150 °C
Compensated T° range	0 up to +80 °C
Temperature coefficient	in compensated T° range
Average Tc of zero	
Standard version	≤ 0.2% of F.S.* / 10K
Flush diaphragm version	≤ -0.2% to +0.3% of F.S.*/ 10K
Average Tc of Span	≤ 0.2% of F.S.* / 10K
Accuracy	≤ 0.5% of F.S.* (2-point calibration)[1)] ≤ 0.25% of F.S.* (Best fit calibration, BFSL)[1)]
Hysteresis	≤ 0.1% of F.S.*
Repeatability	≤ 0.05% of F.S.*
1-year stability	≤ 0.2% of F.S.* (at reference condition)

[1)] Calibrated in vertical mounting position with pressure connection bottom
* F.S.=Full scale

Envelope Dimensions [mm] (see datasheet for details)



A	B	C
110	75	27

Technical Data (continued)

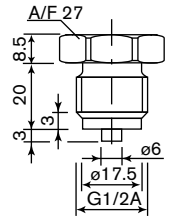
Electrical data	
Power supply [Vs]	10 -30 V DC
Reversed polarity of DC	Protected
Overvoltage protection	Yes
Short circuit protection	Yes
Output	Standard 4-20 mA signal, 2 wires
Load in Ω	≤ (Vs [V] - 10 [V]) / 0.02 [A]
Adjustability: Zero / span	± 10%
Response time	≤ 1 ms
Environment	
Ambient temperature	
Standard version	-20 up to +80°C *(-4 to 176 °F)*
Standard Flush Diaphragm ver.	-20 up to +80°C *(-4 to 176 °F)*
EHEDG Flush Diaphragm ver.	-20 up to +80°C *(-4 to 176 °F)*
Storage temperature	
Standard version	-40 up to +100°C *(-40 to 212 °F)*
Standard Flush Diaphragm ver.	-40 up to +100°C *(-40 to 212 °F)*
EHEDG Flush Diaphragm ver.	-20 up to +100°C *(-4 to 212 °F)*
Standards, directives and approvals	
Protection class	IP65 with cable plug mounted and tightened
Standards and directives	
EMC	EN 50081-1, 50081-2, 50082-2
Shock resistance	IEC 770, 1000g (mechanical shock)
Vibration resistance	IEC 770, 2g (vibration under resonance)

Dimensions

Pressure connection:

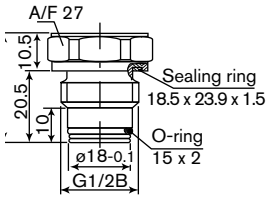
Standard version

G 1/2" A

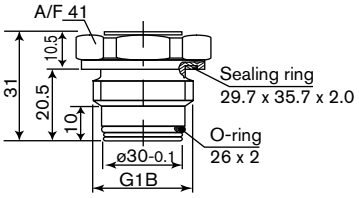


Flush diaphragm version

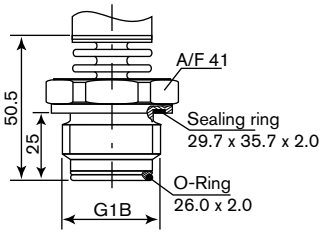
G 1/2" B

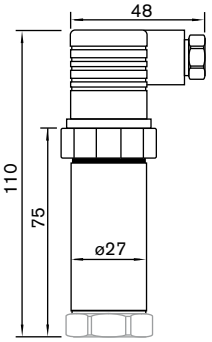


G 1" B



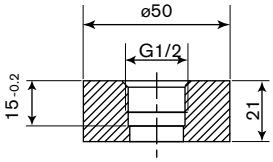
EHEDG G 1" B



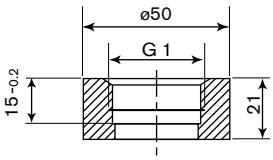


Weld-on socket for pressure connection flush diaphragm version

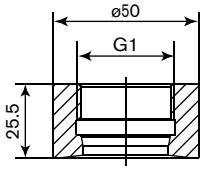
G 1/2" B



G 1" B



EHEDG G 1" B



Ordering Chart

Pressure range [bar]	Max. pressure [bar]	Bursting pressure [bar]	Power supply	Output signal	Item no. Standard	Item no. Standard Flush diaphragm G 1/2" B	Item no. Standard Flush diaphragm G 1" B	Item no. EHEDG Flush diaphragm G 1" B
0 - 0.10	1	2	10 - 30 V DC	4 - 20 mA	417 692	–	552 063	551 803
0 - 0.16	1.5	2	10 - 30 V DC	4 - 20 mA	417 693	–	552 064	–
0 - 0.25	2	2	10 - 30 V DC	4 - 20 mA	417 694	–	–	–
0 - 0.40	2	2	10 - 30 V DC	4 - 20 mA	417 695	–	552 065	551 675
0 - 0.60	4	4	10 - 30 V DC	4 - 20 mA	417 696	–	–	551 676
0 - 1.00	5	5	10 - 30 V DC	4 - 20 mA	417 697	–	552 066	551 677
0 - 1.60	10	10	10 - 30 V DC	4 - 20 mA	417 698	–	–	551 678
0 - 2.50	10	10	10 - 30 V DC	4 - 20 mA	417 699	–	–	551 679
0 - 4.00	17	17	10 - 30 V DC	4 - 20 mA	417 700	–	–	–
0 - 6.00	35	35	10 - 30 V DC	4 - 20 mA	417 701	552 067	–	–
0 - 10.0	35	35	10 - 30 V DC	4 - 20 mA	417 702	552 068	–	551 684
0 - 16.0	80	80	10 - 30 V DC	4 - 20 mA	417 703	552 069	–	–
0 - 25.0	50	250	10 - 30 V DC	4 - 20 mA	417 704	–	–	–

Accessories

Description	Item no.
Weld-on socket G 1/2"	443 295
Weld-on socket G 1"	444 137
Weld-on socket EHEDG G 1"	443 296