

Pressure Transmitter PTC for Industrial Applications

CERTIFICATIONS



DESCRIPTION

PTC pressure transmitters are designed for use in pneumatic and hydraulic applications like compressors and hydraulic units. Easy installation, set-up and operation are features of this high-reliable and cost effective product.

The gauge pressure ranges from 0...6 bar to 0...50 bar. The wetted parts consist of ceramic (measuring element) and stainless steel (pressure port). Therefore PTC pressure transmitters can be used under harsh environmental conditions.

PTC pressure transmitters offer a variety of pressure & electrical connections and are an optimal solution for diverse applications.

The PTC pressure transmitter complies with electromagnetic compatibility requirements (EMC) as per EN 61326.



MEASURING RANGES / OPTIONS

Gauge pressure:

- Positive: 0...6 bar to 0...50 bar
- Compound: -1...+6 bar to -1...+50 bar

FEATURES

- Measuring ranges from 0...6 bar to 0...50 bar
- Cost effective
- Compact, rugged construction
- Corrosion resistant design
- Large selection of connections available
- CE, RoHS confirm

APPLICATIONS

- Compressor
- Hydraulic units
- General industrial applications
- Mechanical and plant applications

SPECIFICATIONS

Model	PTC			Options
Pressure Type	Positive Gauge		Compound Gauge	
Pressure Range	0...6 bar 0...50 bar		-1...6 bar to -1...50 bar	
Overpressure Limit	X 1.5			
Burst Pressure	X 3			
Accuracy¹	≤ ± 1.0% of FS			
Response Time	≤ 5 ms			
Measuring Rate	200 Hz			
Output Signal 2-wire (A): 4...20 mA 3-wire (A): 0...20 mA 3-wire (V): 0...10 VDC 0...5 VDC 1...5 VDC 0.5...4.5 VDC	Power Supply 7...36 VDC 6...36 VDC 14...30VDC 10...30 VDC 10...30 VDC 4.5...5.5 VDC	Maximum Load R _A R _A ≤ (U _b – 10 V) / 0.02 A R _A ≤ (U _b – 3 V) / 0.02 A R _A > max. Output Signal / 1 mA R _A > 4.5 kΩ	Other Signals on Request	
Sensor Element	Ceramic			
Long-term Stability	≤ ± 0.5 % of FS / year at Reference Conditions according to IEC 61298-2			
Case	Stainless Steel 304			
Pressure Connection	G ½ A G ½ B	G ¼ A G ¼ B	NPT ½ NPT ¼	Other Pressure Connections Feasible
Wetted Parts	Stainless Steel 304, Ceramic, FKM/NBR			
Electrical Connection / IP Rating	DIN EN 175301-803-A & -C: IP65 M12x1 (4-Pin): IP67, Cable Outlet: IP67 / 68 (molded)			Other Electrical Connections Feasible
Electrical Protection	Short-Circuit (S+ vs. 0V)		Overvoltage (max. DC 36V)	Reverse Polarity (U _b vs. 0V)
Insulation Voltage	500 VDC			1000 VDC(optional)
Thermal Error on Compensated Range	≤ ±0.2% of FS / 10K in Compensated Range -25 ...85 °C			
Thermal Error on Zero	≤ 0.5 % of FS / 10 K			
Permissible Temperatures	Storage -40...100 °C	Medium -25...125 °C	Environment -25...85 °C	
MTTF	> 100 years			
Conformity Pressure Equipment Directive EMC Directive Vibration Resistance Shock Resistance	CE, RoHS 97/23/EC 2004/108/EEC, EN 61326 Emission (Group 1, Class B) 500g according to IEC 60068-2-27 10g according to IEC 60068-2-6			
Weight	Approx. 0.20 kg			

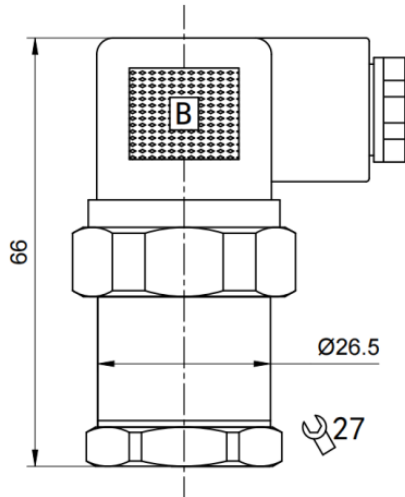
¹Including Non-Linearity, Hysteresis, Zero Point and Full Scale Error
(Corresponds to Error of Measurement per IEC 61298-2)

FS = Full Scale

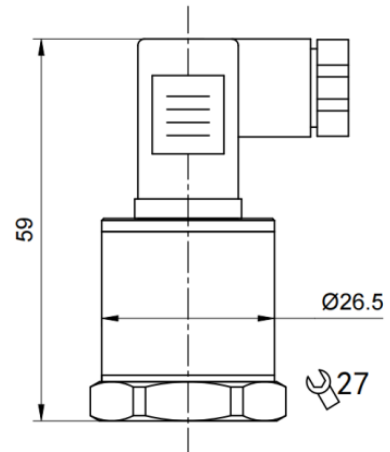
DIMENSIONS (mm)

CASE

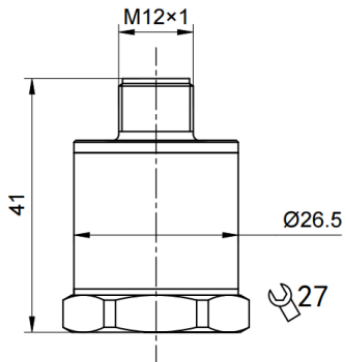
Connector according to
DIN-EN-175301-803 A



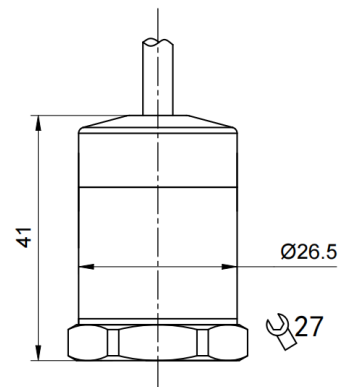
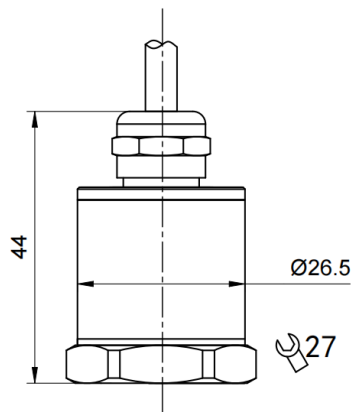
Connector according to
DIN-EN-175301-803 C



Circular Plug-In Connector
M12x1 4-Pin



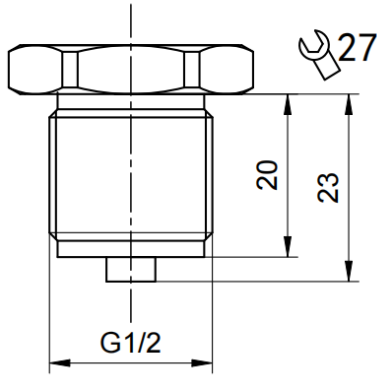
Cable Outlet With Free Ends
IP67 IP68



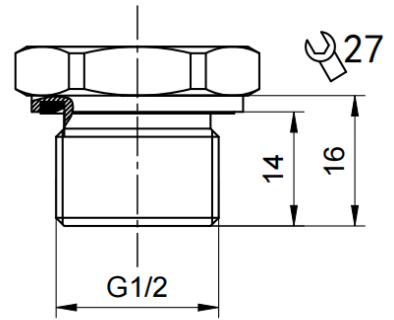
DIMENSIONS (mm)

PRESSURE CONNECTIONS

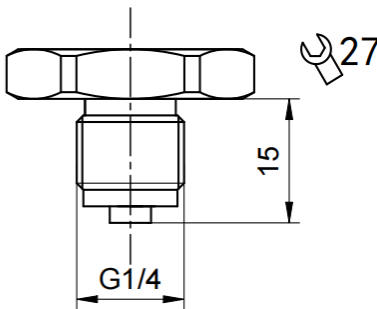
G ½ B
G ½ EN 837



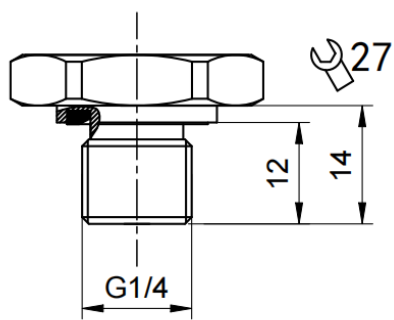
G ½ A
G ½ DIN 3852



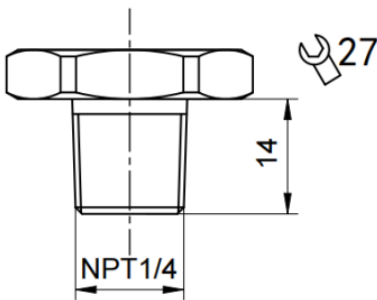
G ¼ B
G ¼ EN 837



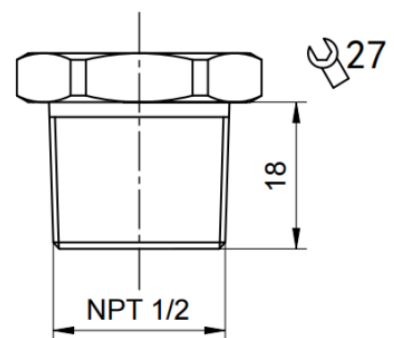
G ¼ A
G ¼ DIN 3852



NPT ¼ ANSI/ASME



NPT ½ ANSI/ASME



ELECTRICAL CONNECTION

	2-wire	3-wire
Circular Connector M12x1 - 4-Pin		
DIN EN 175301-803 Form A Plug with Junction Box		
DIN EN 175301-803 Form C Plug with Junction Box		
Cable Outlet with Free Ends		

ORDERING CODE PTC

PTC-AAAA-B-CCC-DD-EEE

AAAA	Pressure Range (bar)			
	6001	0...6	Z501	-1...6 bar
	1002	0...10	Z901	-1...10 bar
	1602	0...16	Z152	-1...16 bar
	2502	0...25	Z242	-1...25 bar
	4002	0...40	Z392	-1...40 bar
	5002	0...50	Z492	-1...50 bar
	Others on request			

B	Output Signal	
	1	4...20 mA, 2-wire (8-36 VDC)
	2	0...10 V, 3-wire (12-36 VDC)
	3	0.5...4.5 V, 3-wire (8-36 VDC)
	4	0.5...4.5 V, 3-wire (5 VDC)
	5	0...5 V, 3-wire (8-36 VDC)
	6	1...5 V, 3-wire (8-36 VDC)
Others on request		

CCC	Pressure Connection			
	G2A	G1/2A	G2B	G1/2B
	G4A	G1/4A	G4B	G1/4B
	NP2	NPT1/2	NP4	NPT1/4
	PT2	PT1/2	PT4	PT1/4
	Others on request			

DD	Electrical Connection	
	DA	DIN EN 175301-803-A
	DC	DIN EN 175301-803-C
	M1	M12x1, 4-pin
	C1	Cable version IP 67
Others on request		

EEE	Customized	
	111	Standard version
	XXX	Customer specific

Modifications reserved