Baumer
Passion for Sensors

PDRx

Main features

- Fully welded version
- Robust stainless steel housing
- High overpressure resistance
- Excellent long term stability

Applications

- Hydraulic

Main characteristics

Measuring range	0 … 60 bar up to 0 … 1600 bar
Long term stability	≤ ± 0.1% FS / Year
Accuracy (20 °C) (Linearity, hysteresis, repeatabillity, error of span)	≤ ± 0.5% FS, 0.3% FS

Technical specifications

Measuring principle	Resistive thin film
Measuring ranges	0 … 60 bar up to 0 … 1600 bar
Type of pressure	Relative
Accuracy (20 °C) (Linearity, hysteresis, repeatabillity, error of span)	≤ ± 0.5% FS, 0.3% FS
Error of zero point 4...20 mA 0...10 V	 ≤ ± 1% FS ≤ ± 0.2% FS
Zero thermal drift	≤ ± 0.3% FS/10 K
Span thermal drift	≤ ± 0.3% FS/10 K
Long term stability	≤ ± 0.1% FS / Year
Response time (10 … 90%)	≤ 1 ms
Process connections	See page 3

Environment

Temperature	
Storage	-40 ... + 85°C
Medium	-25 ... + 85°C
Ambient	-25 ... + 85°C
Protection rating	IP67
Vibration IEC60068-2-6	1.5 mm p-p (10 – 57 Hz), 10 g (58 Hz – 2 KHz) 10 cycles within 2.5 h per axis
Shock IEC60068-2-27	50 g/11 ms 100 g/6 ms 10 x Imp. per Axis and direction
Bump IEC60068-2-27	100 g/2 ms 4000 x Imp. per Axis and direction
Random IEC60068-2-64	0.1 g^2/Hz (20 Hz – 1 KHz) 30 min per axis (>10 g RMS)

Electrical specification

Output signal / Power supply	4 … 20 mA / 10 … 33 VDC 0…10 V / 14 … 33 VDC
Load impedance Current ouput Voltage ouput	 $R_\Omega = (U_{supply}$-10 V) / 20 mA > 5 KΩ
Insulation resistance	>100 MΩ at 250 VDC
Electrical connections	See page 3

Material

Process connection	SS 1.4301 AISI 304
Housing	SS 1.4301 AISI 304
Diaphragm	SS 1.4542 AISI 630
Sealing	NBR

Approvals

CE conformity	EMC directive 2004/108/CE in accordance with EN61000-6-2, EN 61000-6-3

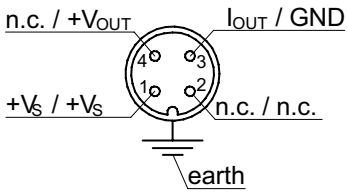
Measuring ranges and overpressure safety

	Pressure in bar							
Pressure range	0 ... 60	0 ... 100	0 ... 160	0 ... 250	0 ... 400	0 ... 600	0 ... 1000	0 ... 1600
Over pressure	120	200	320	500	800	1200	2000	3200
Burst pressure	480	800	1280	2000	3200	4000	4000	4000

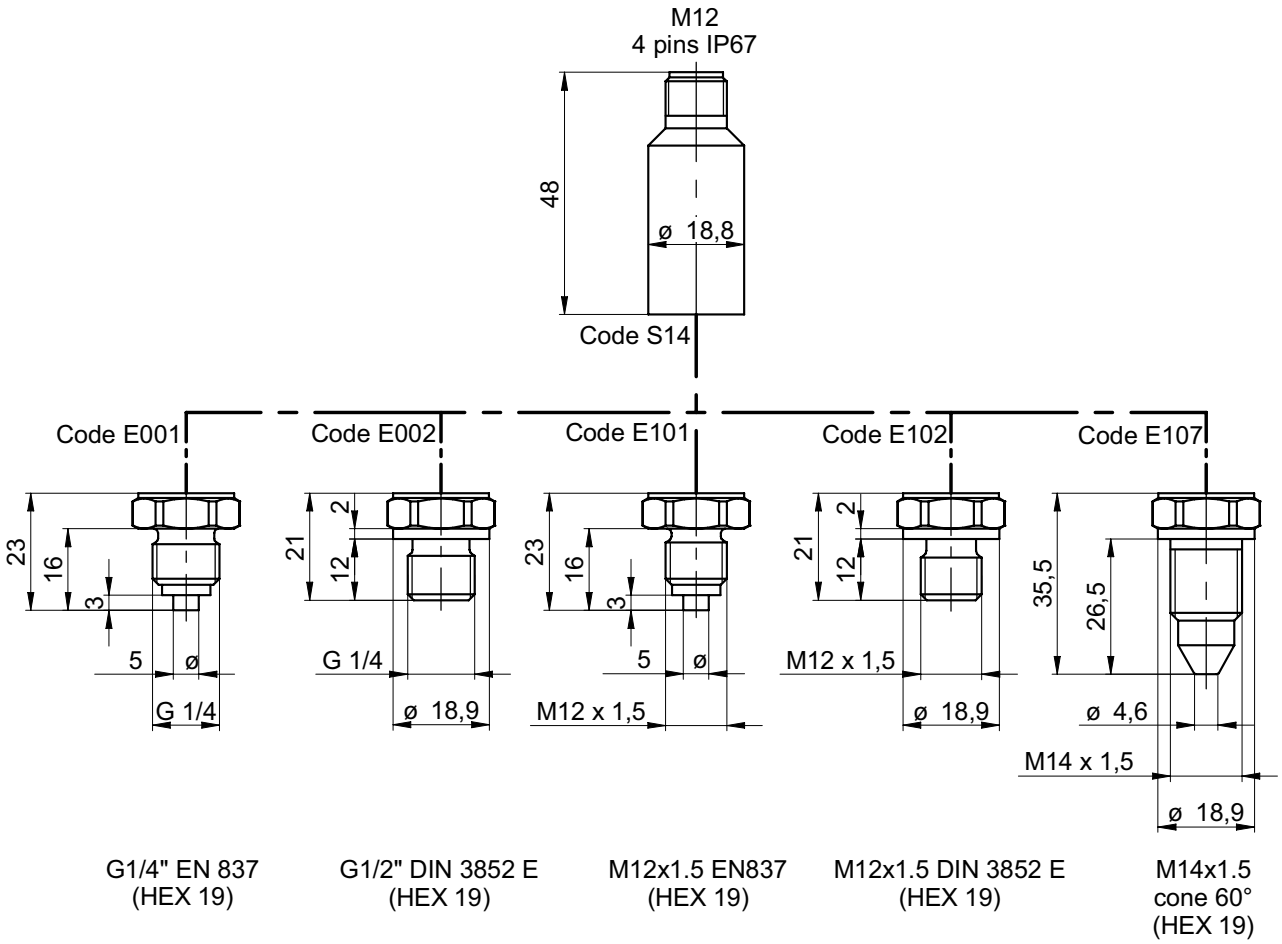
Electrical connections

Signal at 4...20 mA / Signal at 0...10V

M12
4-pins



Dimensions (mm)



G1/4" EN 837 (HEX 19)

G1/2" DIN 3852 E (HEX 19)

M12x1.5 EN837 (HEX 19)

M12x1.5 DIN 3852 E (HEX 19)

M14x1.5 cone 60° (HEX 19)

Ordering details PDRx

		PDR		x		xxxx		xxx		x		xxx		xx
Model														
Pressure transmitter		PDR												
Output signal														
4 ... 20 mA				B										
0 ... 10 V				D										
Process connection														
G¼ EN 837	P ≤ 1000 bar					E001								
G¼ DIN 3852 with sealing	P ≤ 600 bar					E002								
M12x1.5 EN 837	P ≤ 1000 bar					E101								
M12x1.5 DIN 3852 with sealing	P ≤ 600 bar					E102								
M14x1.5 cone 60°	P ≥ 1000 bar					E107								
Output connection														
M12, 4 pins								S14						
Accuracy														
0.5% FS										C				
0.3% FS										B				
Pressure range and unit in bar														
0...60												360		
0...100												410		
0...160												416		
0...250												425		
0...400												440		
0...600												460		
0...1000												510		
0...1600												516		
Damping element														
Without damping element														
With damping element	In combination with process connection code E001/E002/E101/E102													DE