Characteristics

Membrane:	flush-mounted
Range:	0...0,1 bar up to 0...600 bar
Output:	4...20 mA / 0...20 mA / 0...10 V / 0...5 V
Accuracy:	0,5% of span (option: 0,25% of span)
Temperature of medium:	-30...100 °C / -30...125 °C / -20...150°C
Material:	316Ti / 316L
Pressure connection:	G 1/2 B / G 1 B / Hygienic G1 B
Electrical connection:	see technical data
Protection:	IP65 up to IP68 (see page 4)

Technical Data

Pressure Input

Relative pressure:	0...0,1 up to 0...600 bar / -1...0 bar
Absolute pressure:	0...0,25 up to 0...16 bar
Vacuum:	-0,6...0 up to -1...0 bar
± pressure range:	-1...+0,6 up to -1...+24 bar
Ranges:	see table page 2 (with overpressure safety and burst pressure)

Analog Output

4...20 mA:	2-wire	Load:	maximum (U+ - 10 V) / 0,02 A
0...20 mA:	3-wire	Load:	maximum (U+ - 3 V) / 0,02 A
0...10 V, 0...5 V:	3-wire	Load:	max. output signal / 1 mA

Adjustability:	±5% with potentiometer inside the instrument (zero / span) (not possible with cable connection IP68)
Setting time:	≤2 ms

Performance

Accuracy:	<0,5% of span
Option:	<0,25% of span (for ranges >0,25 bar) Including non-linearity, hysteresis, zero and full scale error (corresponds to error of measurement per IEC 61298-2)
Adjustment:	in vertical mounting position with lower pressure connection
Non-linearity:	<0,2% of span (BFSL per IEC 61298-2)
Non-repeatability:	<0,1% of span
1-year stability:	<0,2% of span

Supply

Output:	4...20 mA / 0...20 mA / 0...5 V:	10...30 VDC
	0...10 V:	14...30 VDC
Insulation voltage:	500 VDC with NEC Class 02 power supply (low voltage and low current maximum 100 VA even under fault condition)	
Wiring protection:	Overvoltage protection:	36 VDC
	Short-circuit:	S+ towards U-
	Reverse polarity:	U+ towards U-

Applications

The pressure transmitter is suitable for mechanical engineering, hydraulics, pneumatics, general industrial applications, food and beverage industry with viscous fluids or media containing particulates.

Photos: www.pixelio.de

Technical Data (Continued)

Environmental Conditions

Ambient temperature:	-20...+80 °C	
Storage temperature:	-40...+100 °C / -20...+100 °C (with cooling element)	
Medium:	-30...+100 °C / -20...+150 °C (with cooling element)	
	-30...+70 °C for ranges 0...400 bar and 0...600 bar	
Option:	-40...+125 °C for sensors without cooling element	
Nominal temperature:	0...+80 °C	
Temperature coefficient:	mean temperature coefficient (TC) within nominal temperature range	
TC zero:	<0,2% of span / 10 K	
	<0,4% span / 10 K for ranges <250 mbar	
TC span:	<0,2% span / 10 K	
CE-conformity:	Pressure equipment directive:	2014/68/EU
	EMC directive:	2014/30/EU with EN 61326:Emission (Group 1, Class B) and immunity for industrial locations
Shock resistance:	without cooling stretch:	1000 g according IEC 60068-2-27 (mechanical shock)
	with cooling stretch:	400 g according IEC 60068-2-27 (mechanical shock)
Vibration resistance:	without cooling stretch:	20 g according IEC 60068-2-6 (vibration under resonance)
	with cooling stretch:	10 g according IEC 60068-2-6 (vibration under resonance)

Mechanics

Material	Medium wetted parts:	Stainless steel 316Ti or 316L sealing see page 3
Transmission fluid:	Standard:	synthetic oil (internal)
	Option:	Food-compatible system fill fluid as per FDA 21 CFR 178.3750
Pressure connection:	see page 3	
Electrical connection:	see page 4	
Protection class:	IP65, IP67, IP68 (see page 3)	
Weight:	approx. 200 g (G1/2 B)	

Pressure Tables

Relative pressure

Nominal range	0,1	0,16	0,25	0,4	0,6	1	1,6	2,5
Overpressure safety	1	1,5	2	2	4	5	10	10
Burst pressure	2	2	2,4	2,4	4,8	6	12	12
Nominal range	4	6	10	16	25	40	60	100
Overpressure safety	17	35	35	80	50	80	120	200
Burst pressure	20,5	42	42	96	96	400	550	600
Nominal range	160	250	400	600				
Overpressure safety	320	500	800	1200				
Burst pressure	600	600	1600	1600				

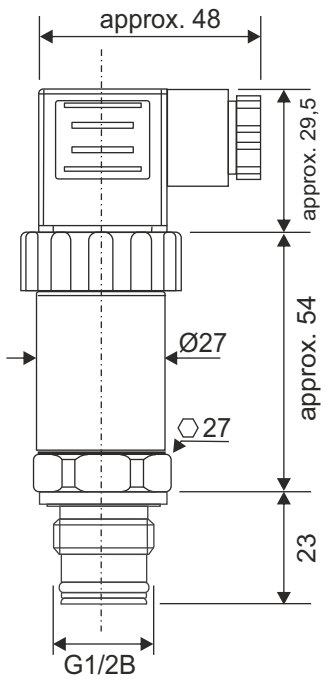
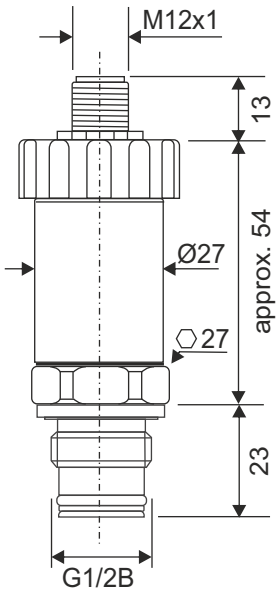
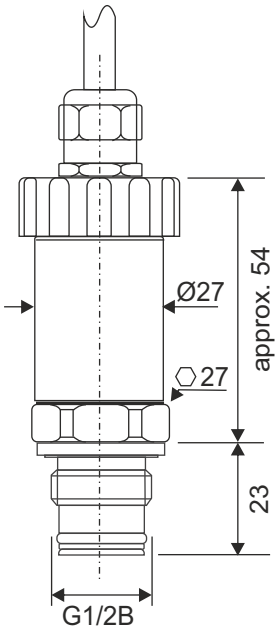
Absolute pressure

Nominal range	0,25	0,4	0,6	1	1,6	2,5	4	6
Overpressure safety	2	2	4	5	10	10	17	35
Burst pressure	2,4	2,4	4,8	6	12	12	20,5	42
Nominal range	10	16						
Overpressure safety	35	80						
Burst pressure	42	96						

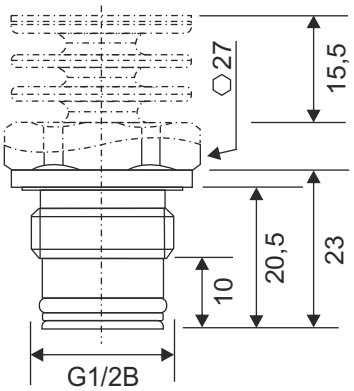
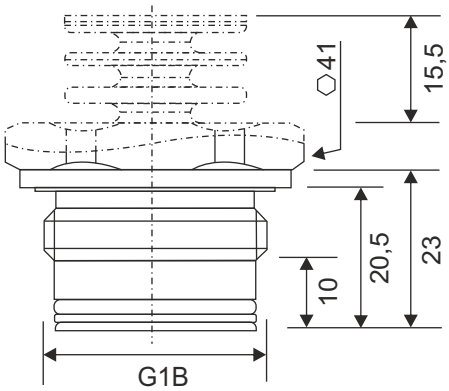
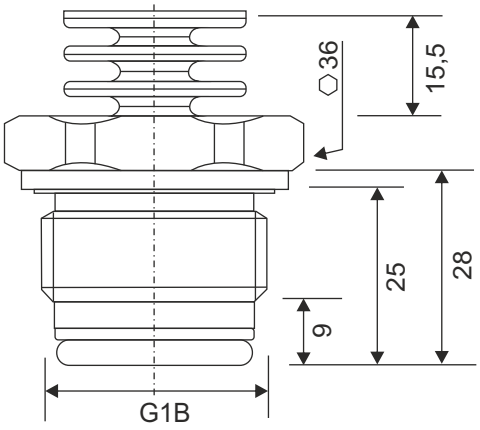
Vacuum and ±-measuring range

Nominal range	-0,1...0	-0,16...0	-0,25...0	-0,4...0	-0,6...0	-1...0	-1...+0,6	-1...+1,5
Overpressure safetye	1	1,5	2	2	4	5	10	10
Burst pressure	2	2	2,4	2,4	4,8	6	12	12
Nominal range	-1...+3	-1...+5	-1...+9	-1...+15	-1...+24			
Overpressure safety	17	35	35	80	80			
Burst pressure	20,5	42	42	96	96			

Dimensions (in mm)

Right angle plug (valve) type A DIN 175301-803	Round plug M12x1	Cable outlet IP67	
			

Pressure Connection (in mm)

G1/2 B with or without cooling stretch 0...2,5 up to 0...600 bar	G1 B with or without cooling stretch 0...0,1 up to 0...1,6 bar	G1 B Hygienic with cooling stretch 0...0,1 up to 0...25 bar
		
Sealings (Standard is supplied with the sensor)		
Without cooling element: NBR (Standard) Option: FPM/FKM, EPDM With cooling element: FPM/FKM (Standard) Option: EPDM		Hygienic: EPDM (Standard)

Order Code

U	F	X	X	X	-	X	-	X	X	X	X	X	X	X

Pressure type:	Relative pressure	0
	Absolute pressure	1
	Vacuum	2
	±-pressure range	3
Accuracy:	0,5%	0
	0,25%	1
Process connection:	G1/2" B (0...2,5 bis 0...600 bar)	3
	G1" B (0...0,1 bis 0...1,6 bar)	5
	G1" B (Hygienic, bis 25 bar)	H
Pressure range:[1)]	(to specify)	X
Temperature medium:	-30...+100 °C	0
	-30...+125 °C	1
	-20...+150 °C (with cooling stretch)	2
Sealing:	NBR (standard without cooling stretch)	0
	FPM/FKM (standard with cooling stretch)	1
	EPDM (standard Hygienic G1 B)	2
Transmission fluid:	Synthetic oil	0
	Food-compatible system fill fluid per FDA 21 CFR 178.3750	1
Output:	4...20 mA	1
	0...20 mA	3
	0...10 V	4
	0...5 V	B
Electrical connection:	M12x1, 4-pole	0
	Angular connector DIN EN 175301-803 (type A)	1
	Cable, 1,5 m	2
	Cable, 3 m	3
	Cable, 10 m	4
	Cable, 15 m	5
Protection	Standard	0
	IP68 (for cable outlet only)	1
Other:	Special model	0

1) Pressure range absolute: A3 = 0...0,25 / A4 = 0...0,4 / A5 = 0...0,6 / B1 = 0...1 / B2 = 0...1,6 / B3 = 0...2,5 / B4 = 0...4 / B5 = 0...6 / C1 = 0...10 / C2 = 0...16 bar

Pressure range relative: A1 = 0...0,1 / A2 = 0...0,16 / A3 = 0...0,25 / A4 = 0...0,4 / A5 = 0...0,6 / B1 = 0...1 / B2 = 0...1,6 / B3 = 0...2,5 / B4 = 0...4 / B5 = 0...6 / C1 = 0...10 / C2 = 0...16 bar / C3 = 0...25 / C4 = 0...40 / C5 = 0...60 / D1 = 0...100 bar / D2 = 0...160 / D3 = 0...250 / D4 = 0...400 / D5 = 0...600 bar

Vacuum: J1 = -0,1...0 / J2 = -0,16...0 / J3 = -0,25...0 / J4 = -0,4...0 / J5 = -0,6...0 / K1 = -1...0 bar

±-pressure ranges: L2 = -1...+0,6 / L3 = -1...+1,5 / L4 = -1...+3 / L5 = -1...+5 / M1 = -1...+9 / M2 = -1...+15 / M3 = -1...+24 bar

Electrical Connection

	Right angle plug (valve) DIN 175301-803 A	Round plug M12x1, 4-pole	Cable Shield = grey
4...20 mA (2-wire)	U+ = 1 U- = 2	U+ = 1 U- = 3	U+ = brown U- = green
0...20 mA / 0...5 V / 0...10 V (3-wire)	U+ = 1 U- = 2 S+ = 3	U+ =1 U- = 3 S+ =4	U+ = brown U- = green S+ = white
Wire gauge	up to maximum 1,5 mm²		3x 0,5 mm²
Diameter of cable	6...8 mm		6,8 mm
Length of cable			1,5 m, 3m, 10 m, 15 m
Ingress protection IEC 60529	IP 65	IP 67	IP67 or IP 68
The specified protection only applies with mating plugs which can provide the corresponding protection class.			

1) Adjustment is not possible for cable outlet with protection class IP68