

PD1 Series

Relative and differential pressure transmitter
-1 ... 1 mbar / 0 ... 0.3 - 50 mbar

Ref : FP 2554

Rev : A



DESCRIPTION

This transmitter is specially designed for measuring very low relative pressure: -1 ... 1 mbar / 0 ... 0.3 - 50 mbar. It is quick and easy to mount. The measurement range can easily be adjusted with switches or through the display when the product is equipped. The full-version includes many other customized selections: filter, hysteresis, square root for flow measurement). They are available with or without LCD display.

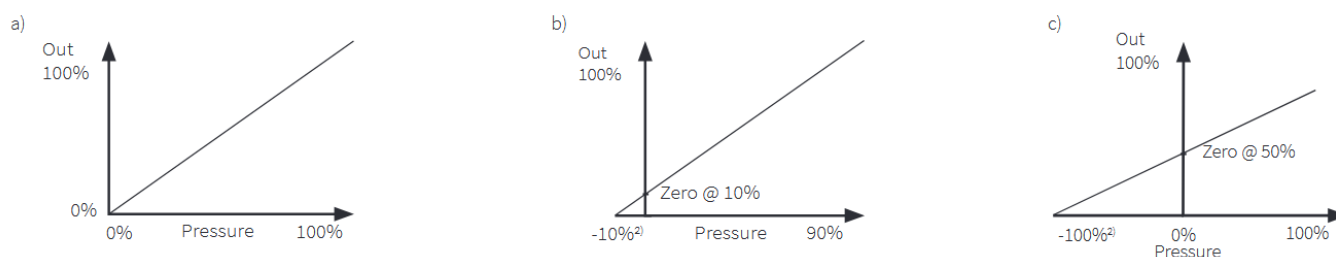
Thanks to sensors specially adapted to each pressure range, precise and reliable physical measurement is possible.

TECHNICAL CHARACTERISTICS

MODEL	Output – mA	Output – EX	Amplified output – 5V	Amplified – 10V
INPUT				
Pressure range (BAR)	-1 ... 1 mbar / 0 ... 0.3 - 50 mbar			
Pressure type	Relative and differential			
Tolerable overload on one side	Application at over pressure range	< 3 mbar P1 = 50 mbar > 3 mbar P1 = 100 mbar	P2 = 4 mbar P2 = 4 mbar	
	Application at under pressure range	< 3 mbar P1 = -4 mbar > 3 mbar P1 = -4 mbar	P2 = -50 mbar P2 = -100 mbar	
Medium	Air and neutral gases			
Rupture pressure	Ambient temperature 70°C	2 x overload 1.5 x overload		
Current consumption	< 20 mA	< 10 mA	< 30 mA	< 30 mA
Power supply	8.0 ... 33 VDC	13.5 ... 33 VDC / 24 VAC ±15%	13.5 ... 33 VDC / 24 VAC ±15%	13.5 ... 33 VDC / 24 VAC ±15%
OUTPUT				
Output	4 ... 20 mA	0 ... 10 V	0 ... 20 mA	4 ... 20 mA
Load	< $\frac{\text{supply voltage}-8V}{0.02 A \Omega}$ [Ohm]	>10 kOhm	< 500 Ohm	< 500 Ohm
Load cycle	< 10 Hz			
ENVIRONMENT				
Temperature:				
. medium/ambient	0°C à +70 °C			
. storage	-10°C à +70 °C			
CONNECTIONS				
Electrical connection	Screw terminals for wire and stranded conductors up to 1.5 mm2 Cable gland with built-in strain relief PG11			
Pressure connection	Connection pipe Ø 6.2 mm			

MEASURING RANGE Pressure range selectable	mbar (hPa)	Pa	mmWS	inH2 O	under pressure max.
	0 ... 0.3/0.5	30/50	3/5	0.1/0.2	-50 Pa
	0 ... 0.3/0.5/1 -	30/50/100	3/5/10	0.1/0.2/0.3	-100 Pa
	0 ... 0.5/1/3	50/100/300	5/10/30	0.3/0.5/1	-50 Pa
	0 ... 1/3/5	100/300/500	10/30/50	0.5/1/2	-50 Pa
	0 ... 3/5/10	300/500/1000	30/50/100	1/2/3	-50 Pa
	0 ... 5/10/16	500/1000/1600	50/100/160	2/3/5	-50 Pa
	0 ... 10/16/25	1000/1600/2500	100/160/250	3/5/10	-50 Pa
	0 ... 16/25/50	1600/2500/5000	160/250/500	5/10/20	-50 Pa
Signal range selectable	Pressure range of 0 % to 100% fs - diagram a) Pressure range of -10 % to 90% fs – diagram b) Pressure range of -100 % to 100% fs – diagram c)				
Pressure units	Mbar, hPa, Pa, kPa, mmWS, inH2O				
Output signal / adjustment	Linear	without Filter with Filter (transposable)	dual DIP-Switch tenfold DIP-switch		
	Square root extracted	without Filter with Filter (transposable)	dual DIP-Switch tenfold DIP-switch		

RANGE OF CHARACTERISTIC LINE



Depending on the version parameters are adjustable by customer

Version Variable parameters

Dual DIP-Switch Pressure ranges in grades

Tenfold DIP-Switch Pressure ranges in grades; stepless adjustable with Turbo-Poti / output signals / filter (off / on) / response curve (linear / root extracted)

Tenfold DIP-Switch with Display Pressure ranges in grades; stepless adjustable with Turbo-Poti / pressure units / pressure range character / output signals; additional 0 ... 5 V / filter (off / 0.2s / 1s / 5s / 20s) / response curve (linear / root extracted) / backlight (off / 5min / on)

DIMENSIONS (in mm) / ELECTRICAL CONNECTIONS

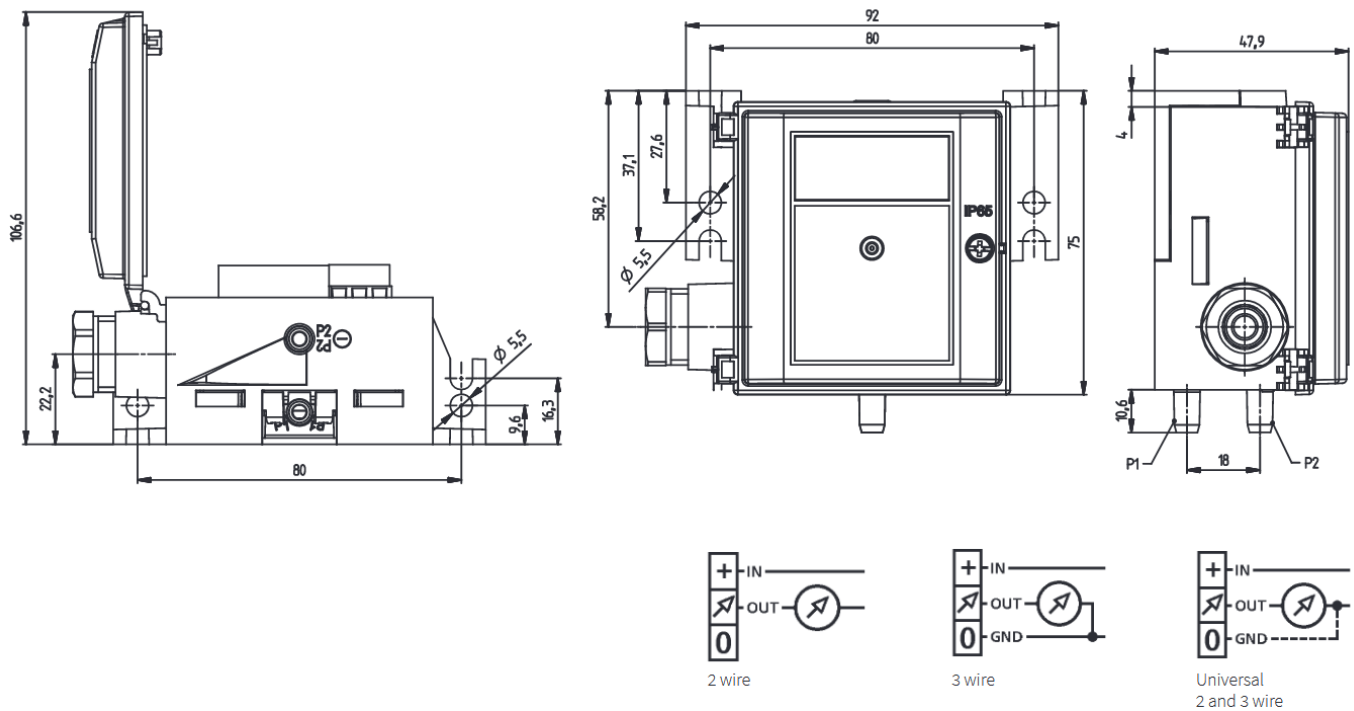
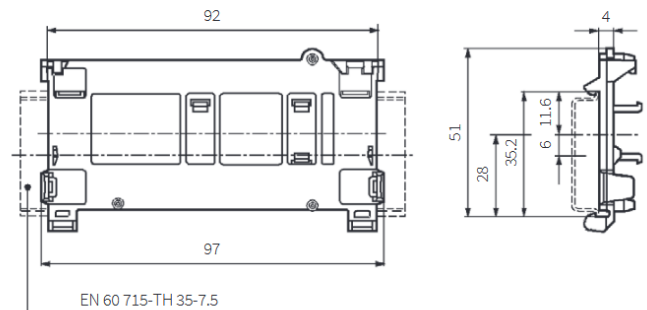
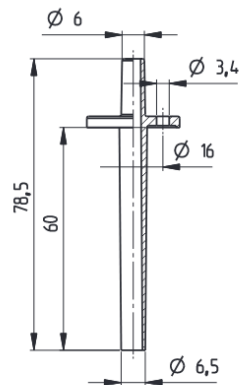
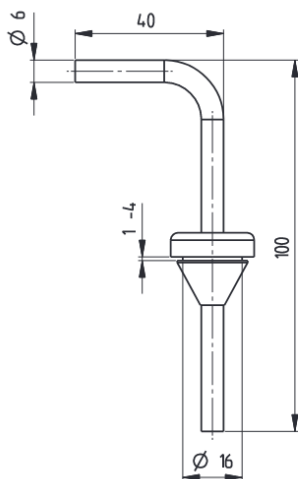


Fig. 1

Fig. 2

Fig. 3



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