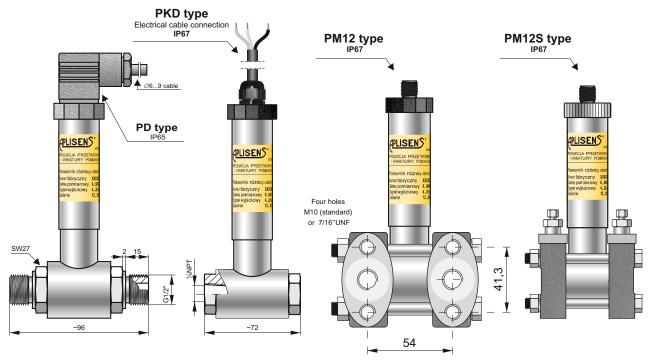


DIFFERENTIAL PRESSURE TRANSMITTER PRE-28

- ✓ Overloads up to 413 bar total static pressure
- ✓ Accuracy 0,25%
- ✓ Any range from 0...16 mbar up to 0...25 bar
- ✓ Intrinsic safety certificate (ATEX, IECEx)
- ✓ Marine certificate DNV, BV



Transmitter PRE-28 Process connection GP type.

Transmitter **PRE-28** Process connection **PN type**.

Transmitter PRE-28 – version with type C connection to be mounted together with a valve manifold.

Transmitter PRE-28 – version with type CH connection to be mounted together with a valve manifold.

Application

The PRE-28 transmitter is applicable to the measurement of dofferential pressure of gases, vapours and liquids.

Construction

The active element is a piezoresistance silicon sensor separated from the medium by separating diaphragm and a specially selected type of manometric fluid. The special desing of theactive sensing element ensures withstanding the pressure surges and overloads of up to 413bar. The electronics is placed in a casing with a degree of protection IP65, IP67, depending on the type of electrical connection applied.

Calibration

Potentiometers can be used to shift the zero position and the range by up to 10%, without altering the settings.

Installation

The transmitter with GP type process connection is not heavy, so it can be installed directly onto impulse lines. For fitting in any desired position on a $\varnothing 25$ pipe the Aplisens mounting bracket (FI25 mounting bracket, page IV/ 5) is recommended.

The version with C type process connection can be fitted directly to a 3- or 5-valve manifold. The factory-mounted transmitters with VM type valve manifold (page IV/ 2) are recommended. A transmitter without a valve manifold can be fitted in any position on a 2" pipe or on a wall using the C-2" mounting bracket (page IV/ 5).

When the special process connections are required for the measurement of levels and pressures (e.g. at food and chemical industries), the transmitter is provided with an Aplisens diaphragm seal. The differential pressure transmitters with diaphragm seals are described in detail in the further part of the catalogue.

Technical data

Materials: Wetted parts: SS316L Casing SS304 (Option: SS316) $\begin{array}{ll} \mbox{Hysteresis, repeatability} & 0.05\% \\ \mbox{Thermal compensation range:} & 0\div70^{\circ}\mbox{C} \\ \mbox{Operating temperature range:} & -25\div80^{\circ}\mbox{C} \end{array}$

Medium temperature range: -25÷120°C (direct measurement)

Over 120°C – measurement with use an impulse line or diaphragm seals

CAUTION: the medium must not be allowed to freeze in the impulse line or close to the process connection of the transmitter.



Technical data

Any measuring range 0...16 mbar ÷ 0...25 bar

	Measuring Range								
	25 mbar	100 mbar	1 bar	2 bar	25 bar				
Overpressure Limit Static Pressure Limit (repeated, without hysteresis)	250 bar (option 413 bar) (40 bar for GP type process connection)								
Accuracy	0,4%	0,4%	0,25%						
Long term stability	0,6% / year	0,2% / year	0,1% / year						
Thermal error	Typically 0,6% / 10°C max 1% / 10°C								
Zero shift error for static pressure*	0,1% / 10 bar								

^{*} Zeroing the transmitter in conditions of static pressure can eliminate this error.

Output signal 4...20 mA, two wire transmission

Load resistance (for current output) $R[\Omega] \le \frac{U_{sup}[V] - 85V}{0,02A}$

0...10 V, three wire transmission

Load resistance (for supply output)

 $R \ge 20k\Omega$

Power supply

output 4..20 mA: 8...36 VDC (Ex 9...28 VDC)

version TR: 10,5...36 VDC (Ex 12...28 VDC) 13...30 VDC

output 0..10 V: 13...30 VDC

Error due to supply voltage changes 0.005% (FSO) / V

Ordering procedure

Model			Cod	le	Description				
PRE-28					Differen	tial pressure transmitter			
	/Exia				€x>	II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb II 1D Ex ia IIIC T110°C Da I M1 Ex ia I Ma	FOR PM12, PKD version: (x) II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb IECEX Ex ia IIC T4/T5/T6 Ga/Gb		
Versions, certificates					IECEx	Ex ia IIC T4/T5/T6 Ga/Gb Ex ia IIIC T110°C Da Ex ia I Ma	For ALW, ALM version: II 1/2G Ex ia IIC T4 Ga/Gb II 1D Ex ia IIIC T110°C Da Ex ia IIC T4 Ga/Gb Ex ia IIIC T110°C Da		
	/MR				Marine certificate – DNV, BV (not available in ALW and ALM version)				
more than one option /Tlen					For oxygen service (sensor filled with Fluorolube fluid)				
is available	/TR				Response time <30ms; only 420mA output				
	/NACE	/NACE			NACE MR-01-75 certificate (process connections: C)				
Measuring range	/÷	[required	units]		Measuri	ng range in relation to 4mA and 20i	mA (or 0 and 10V) output.		
Analogue output signal		(withou	t mark	ring)	420mA / power supply 10,536VDC (Ex 1228VDC)				
Analogue output signal		/0÷10V	/		010VDC /power supply 1330VDC				
Measuring set range /÷ [requ			quired units]	Calibrated range in relation to 4mA and 20mA (or 0V and 10V) output					
		/PD		Housing IP65 with DIN EN 175301-803 connector					
				PM12		304SS housing, IP67 with thread M12x1			
Casing, electrical conne	ction		PM12S		304SS housing, IP67 with thread M12x1, stainless steel version				
Casing, electrical confile	Cuon		/PKD.	PKD		304SS housing, IP67, cable electrical connection (3 m of cable in standard)			
			/ALW.		Aluminum housing, local display, IP65, DIN43650 connector (420mA version only)				
/		/ALM		Aluminum housing, local display, IP65, DIN43650 connector (420mA version only)					
/C				Thread 1/4NPT F on the cover flanges cover flanges material SS316. Allows mounting with a valve manifold. Process connection of cover flange: M10 (option /C(7/16) - 7/16"UNF acc. to IEC 61518), wetted parts material: SS316L					
Process connections /GP /PN		/CH	l	C-type process connection rotated 90°					
)	Thread	Thread G1/2" (male), wetted parts material: SS316L					
		l	Thread	Thread 1/4"NPT (female), wetted parts material: SS316L					
		de of diaphragm seal		Diaphragm seal (see chapter of diaphragm seals) mounted on Hi side of transmitter, Lo side 1/4NPT Female					
Gasket (refers only to C, CH process connection) (without marking			(without marking)	FPM Vit	on				
Caunci (reiers only to C	, or process	00111160110	,,,,	/NBR	NBR	NBR			
/PT			/PTFE	,	PTFE (max. static pressure 250bar)				
/C-2"					Mounting bracket for 2" pipe (to C process conn.), mat. zinced steel				
/C-2"(SS)				/C-2"(SS)	Mounting bracket for 2" pipe (to C process conn.), mat. ss304				
/C-2" /C-2" /C-2" /C-2" /C-2" /Fl25 /Red /Red			/C-2"(SS316)	Mountin	Mounting bracket for 2" pipe (to C process conn.), mat. ss316				
			/C-2"B	Mountin	Mounting bracket for 2" pipe (to C(7/16) process conn.), mat. zinced steel				
			/C-2"B(SS)	Mounting bracket for 2" pipe (to C(7/16) process conn.), mat. ss304					
			/C-2"B(SS316)	Mountin	Mounting bracket for 2" pipe (to C(7/16) process conn.), mat. ss316				
			/FI25		Mounting bracket for 1" pipe (to P process conn.), mat. Stainless Steel				
			/RedSpaw GP	Connector to weld impulse pipes dia. 12 and 14 mm, material 15HM(SO) or SS316(S).					
			/RedSpaw C	Only process connection GP type Connector to weld impulse pipes dia. 12 and 14 mm, material 15HM. Only process connection C type.					
			/Red d/P 1/2"	Adapter for differential pressure transmitters with C type process connection, output thread 1/2NPT F. Material SS316L					
Other specification				1	Descript	tion of required parameters			