DIFFERENTIAL PRESSURE TRANSMITTER PRE-28

✓ Overloads up to 413 bar total static pressure

PLISENS

- ✓ Accuracy 0,25%
- ✓ Any range from 0...16 mbar up to 0...25 bar

Application

The PRE-28 transmitter is applicable to the measurement of

Construction

The active element is a piezoresistance silicon sensor sepa-

rated from the medium by separating diaphragm

and a specially selected type of manometric fluid. The spe-

cial desing of theactive sensing element ensures withstand-

ing the pressure surges and overloads of up to 413bar.

The electronics is placed in a casing with a degree of pro-

tection IP65, IP67, depending on the type of electrical con-

Calibration

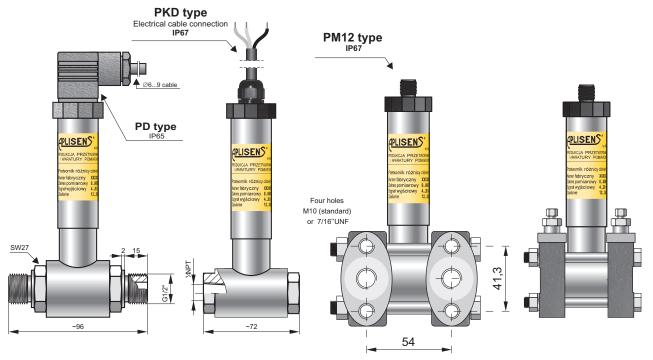
Potentiometers can be used to shift the zero position

and the range by up to 10%, without altering the settings.

dofferential pressure of gases, vapours and liquids.

✓ 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.

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 \oslash 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: Casing

nection applied.

SS316L SS304 (Option: SS316) Hysteresis, repeatability Thermal compensation range: Operating temperature range: Medium temperature range: 0,05% 0+70°C -25+80°C -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 Typically 0,3% / 10°C Typically 0,2% / 10°C max 1% / 10°C max 0,4% / 10°C max 0,3% / 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	420 mA, two wire transmission	Load resistance (for current output)	$R[\Omega] \le \frac{U_{sup}[V] - 85V}{0,02A}$			
	010 V, three wire transmission	Load resistance	$R \ge 20k\Omega$			
Power supply						
output 420 mA:	836 VDC (Ex 928 VDC) version TR: 10.536 VDC (Ex 1228 VDC)					
output 010 V:	1330 VDC					

Error due to supply voltage changes 0,005% (FSO) / V

Ordering procedure

Model			Cod	e	Description			
PRE-28				Differential pressure transmitter				
		ixia		€	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	Only for transmitters with 420mA output For PM12, PKD version:		
Versions, certificates				IECEx	Ex ia I Ma	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 IIC T4 Ga/Gb Ex ia IIC T110°C Da		
	/MR		Marine certificate – DNV, BV (not available in ALW and ALM version)					
more than one option					For oxygen service (sensor filled with Fluorolube fluid)			
is available					Response time <30ms; only 420mA output			
					NACE MR-01-75 certificate (process connections: C)			
Measuring range	/÷	[required			-	ng range in relation to 4mA and 20m	· · · · · ·	
Analogue output signal		<i>(withou</i> /0÷10V		ing)	420mA / power supply 10,536VDC (Ex 1228VDC) 010VDC /power supply 1330VDC			
Measuring set range		/+	⊦ [re	quired units]	Calibrate	ed range in relation to 4mA and 20m	A (or 0V and 10V) output	
					Housing IP65 with DIN EN 175301-803 connector		nector	
			/PM12	PM12		304SS housing, IP67 with thread M12x1		
/ALW.		/PKD.	PKD		304SS housing, IP67, cable electrical connection (3 m of cable in standard)			
		/ALW.	ALW		Aluminum housing, local display, IP65, DIN43650 connector (420mA version only)			
		/ALM.		Aluminum housing, local display, IP65, DIN43650 connector (420mA version only)		3650 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				/CH		C-type process connection rotated 90°		
					Thread G1/2" (male), wetted parts material: SS316L			
			/PN		Thread 1/4"NPT (female), wetted parts material: SS316L			
		/000	le 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)	FPM Vit	on				
			5.1.)	/NBR	NBR			
/PTFE			/PTFE	PTFE				
/C-2" /C-2"(SS) /C-2"(SS316) /C-2"B(SS) /C-2"B(SS) /C-2"B(SS) /C-2"B(SS) /C-2"B(SS) /C-2"B(SS) /C-2"B(SS) /RedSpaw GP /RedSpaw C /Red d/P 1/2"			Mounting bracket for 2" pipe (to C process conn.), mat. zinced steel					
			Mounting bracket for 2" pipe (to C process conn.), mat. ss304					
			· /	5				
				Mounting bracket for 2" pipe (to C(7/16) process conn.), mat. zinced steel				
			· · ·					
			`` '	Mounting bracket for 2" pipe (to C(7/16) process conn.), mat. ss316				
				Mounting bracket for 1" pipe (to P process conn.), mat. Stainless Steel				
			Connector to weld impulse pipes dia. 12 and 14 mm, material 15HM(SO) or SS316(S). Only process connection GP type					
			Connector to weld impulse pipes dia. 12 and 14 mm, material 15HM. Only process con-					
			/Red d/P 1/2"	nection C type. Adapter for differential pressure transmitters with C type process connection, output thread 1/2NPT F. Material SS316L				
Other specification /		Description of required parameters						