



Differential Pressure Transmitter HPT 500

Description:

The HPT differential pressure transmitter series was specially developed to offer low-cost solutions for differential pressure. Via a piston movement the generated differential pressure is detected by means of a Hall sensor.

The sensor reacts to increasing contamination degree of the element by increasing the differential pressure signal.

The media compatibility includes hydraulic oils, lubrication oils, HFA, HFB and HFD as well as all further environment-friendly fluids¹⁾.

The differential pressure transmitter is used in systems requiring a continuous, intelligent monitoring of the differential pressure. It is used both in mobile and in stationary applications.

Special features:

- Accuracy: $\leq \pm 3\%$ FS typ.
- Compact and robust design
- Standardised mechanical connector, G $\frac{1}{2}$ HN 28-22

Technical data:

Input data			
Measuring ranges	Differential pressure 2, 5, 8 bar		
		Aluminium	Stainless steel
Differential pressure resistance			
A:(High Pressure Side)	A	160 bar	420 bar
B:(Low Pressure Side)	B	70 bar	100 bar
Overload pressure		200 bar	600 bar
Burst pressure		350 bar	1600 bar
Mechanical connection	G $\frac{1}{2}$ HN 28-22		
Torque value		33 Nm	100 Nm
Medienberührende Teile ²⁾	Connection part:	Stainless steel or Aluminium	
	Seals:		
	O-Ring:	Standard NBR	
	Profile seals:	NBR (Aluminium version) PTFE (Stainless steel version)	
Output data			
Output signal	4 .. 20 mA, load max. U_b -3 V / 0.02 A 0 .. 10 V, 0.5 .. 4.5 x ratiometric		
Accuracy to DIN 16086, Max. setting	$\leq \pm 3\%$ FS typ. $\leq \pm 5\%$ FS max. (rel. to Δp)		
Temperature drift	$\leq \pm 0.05\%$ / °C max. zero point $\leq \pm 0.05\%$ / °C max. range		
Long-term drift	$\leq \pm 0.5\%$ FS typ. / year		
Environment conditions			
Compensated temperature range	+20 °C .. +70 °C		
Operating temperature range	-20 °C .. +85 °C		
Storage temperature range	-40 °C .. +100 °C		
Fluid temperature range	-20 °C .. +85 °C		
CE mark	EN 61000-1 / 2 / 3 / 4		
Vibration resistance acc. to DIN EN 60068-2-6 at 10 .. 500 Hz	≤ 20 g		
Shock resistance according to DIN EN 60068-2-29 (1 ms)	50 g		
Protection class to IEC 60529	IP 67 (M12x1) IP 69K (DT 04)		
Other data			
Electrical connection	M12x1, 4pole Deutsch DT 04, 3pole		
Supply voltage, 3 conductor	8 .. 30 V DC		
Supply voltage ratiometric	5 V DC $\pm 5\%$		
Current consumption 3 conductor	approx. 25 mA		
Residual ripple of supply voltage	$\leq 5\%$		
Life expectancy	> 1 Million cycles (max. diff. pressure resistance)		
Weight	~ 80 g (aluminium) ~ 170 g (stainless steel)		

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

FS (Full Scale) = relative to the full measuring range

¹⁾ Medium compatibility with HFC on request

²⁾ Further seal materials on request

Model code:

HPT 5 0 X - X - XXXX - X - 000

Electrical connection

6 = Connector male M12x1, 4 pole
K = Connector male DT04, 3 pole

Signal

B = 0 .. 10 V, 3 conductor
C = 4 .. 20 mA, 3 conductor
R = 0.5 .. 4.5 V ratiometric, 3 conductor

Differential pressure ranges in bar

02.0; 05.0; 08.0

Housing material

A = Aluminium
S = Stainless steel

Modification number

000 = Standard

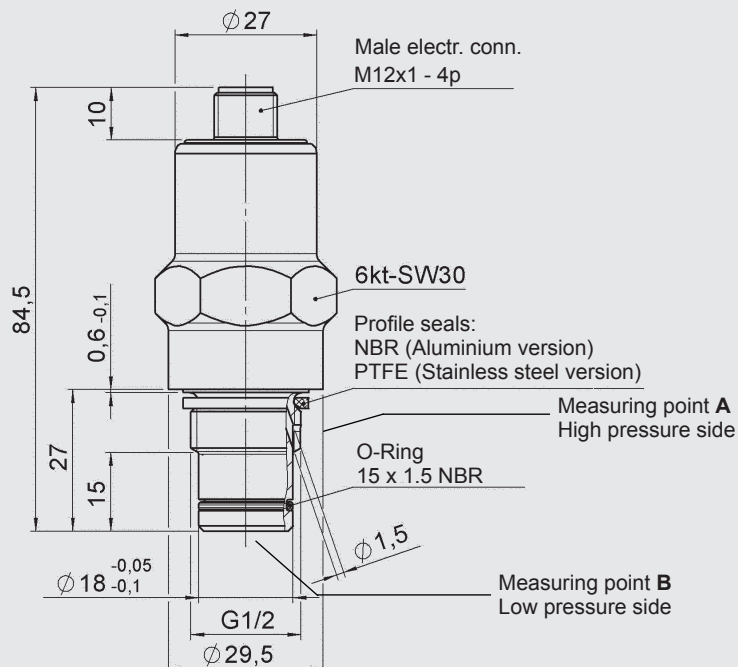
Note:

On units with a different modification number, please read the label or the technical amendment details supplied with the unit.

Accessories:

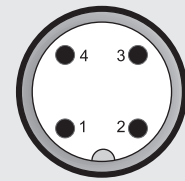
Appropriate accessories, such as connector blocks available on request.

Dimensions:



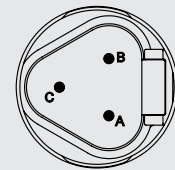
Pin connections:

M12x1



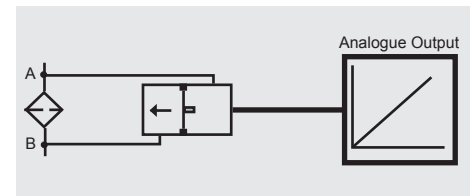
Pin	HPT 506
1	+U _B
2	n.c.
3	0 V
4	Signal

DT 04 3-pol.



Pin	HPT 50K
A	+U _B
B	Signal
C	0 V

Function:



Note:

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modification.

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