



Differential Pressure Transmitter HPT 500

Differential pressure

Accuracy 3 %

High pressure resistance

Description:

The HPT differential pressure transmitter series was specially developed to provide a low-cost solution for differential pressure. Via an internal 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 fluids ¹⁾.

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 industrial applications.

Technical data:

Input data

Measuring ranges	Differential pressure 2; 5; 8 bar	
	Aluminium	Stainless steel
Pressure resistance	160 bar	420 bar
Overload pressures	200 bar	600 bar
Burst pressure	350 bar	1600 bar
Mechanical connection	G ½ HN 28-22	
Tightening torque, recommended	33 Nm	100 Nm
Parts in contact with fluid ²⁾	Mech. connection: Aluminium or stainless steel	
	Seals:	
	O-ring:	Standard NBR
	Profile seal ring:	NBR (aluminium version) PTFE (stainless steel version)

Output data

Output signal	4 .. 20 mA, load resistance max. U _B -3 V / 0.02 A 0 .. 10 V 0.5 .. 4.5 x ratiometric
Accuracy acc. to DIN 16086, terminal based	≤ ± 3 % FS typ. ≤ ± 5 % FS max. (in rel. to Δp)
Temperature drift	≤ ± 0.05 % / °C max. zero point ≤ ± 0.05 % / °C max. span
Long-term drift	≤ ± 0.5 % FS typ. / year

Environmental 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 acc. to DIN EN 60068-2-27 (1 ms)	50 g
Protection class ³⁾ acc. to DIN EN 60529	IP 67 (M12x1), IP 69 (DT 04) IP 6K9K (DT 04)

Other data

Supply voltage, 3-conductor	8 .. 30 V DC
Supply voltage ratiometric	5 V DC ± 5 %
Residual ripple of supply voltage	≤ 5 %
Current consumption 3-conductor	approx. 25 mA
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.

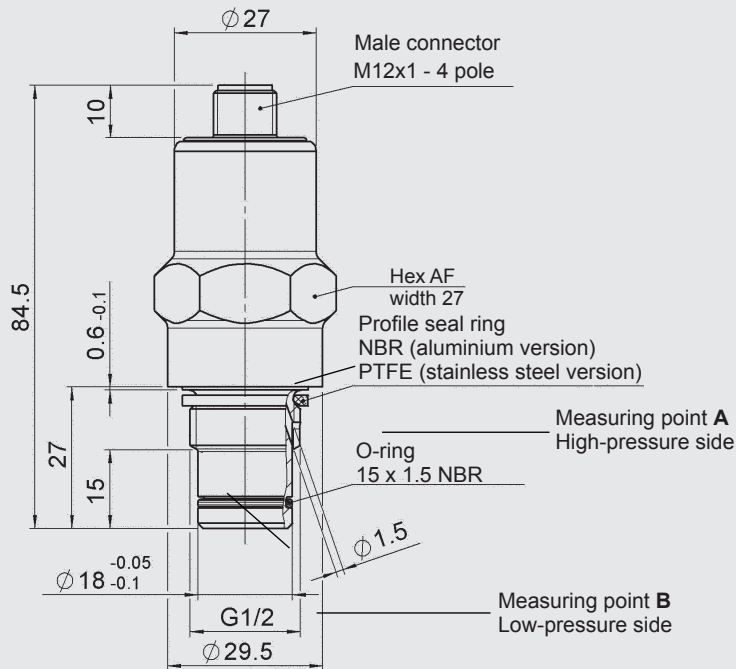
FS (Full Scale) = relative to complete measuring range

¹⁾ Medium compatibility with HFC on request

²⁾ Other sealing materials on request

³⁾ With mounted mating connector in corresponding protection class

Dimensions:



Model code:

HPT 50 X - X - XXXX - X - 000

Electrical connection

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

Output 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

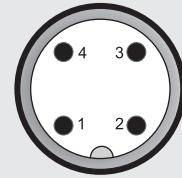
000 = standard

Accessories:

Appropriate accessories, such as connector blocks, available on request

Pin connections:

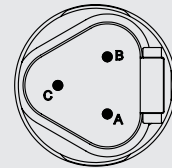
M12x1



Pin HPT 506

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

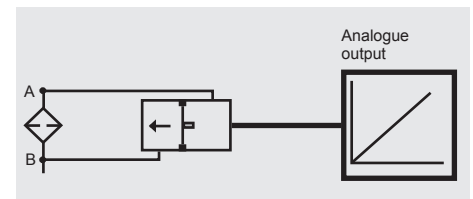
DT 04 3 pole



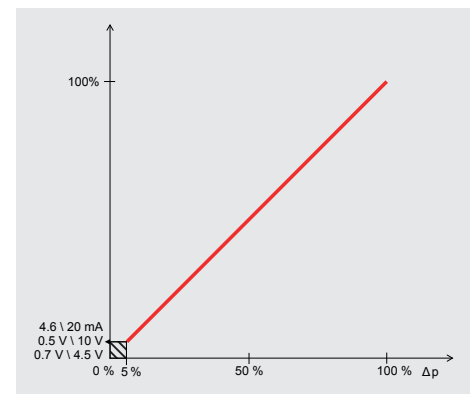
Pin HPT 50K

A	+U _B
W	Signal
C	0 V

Function:



Characteristics:



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 modifications.

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