



- **Pressure range from 2000 to 5000 bar**
- **High strength, rugged Titanium design**
- **Excellent accuracy and long stability**

The EPT31HP (High Pressure) is a high quality all stainless steel pressure transducer with wetted parts made from Titan. This way he is ideally suited for use in the measurement of gases and liquids with high pressures.

The sensor is suitable for industrial hydraulics, off-road, construction and agricultural applications.

With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the EPT31HP assures trouble free operation at temperatures up to 125°C. The piezo resistive sensing element coupled with the latest ASIC circuitry, assures excellent accuracy, choice of high level outputs and long stability, protected within a rugged, stainless steel housing.

Specifications

Performance

Accuracy @ RT	% of the range (gauge and vacuum sensors) < 1.0 BFSL ≤ 0.5		(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)					
Non-linearity	% of the range ≤ 0.30							
Repeatability	% of the range ≤ 0.20							
Stability/year	% of the range ≤ 0.20							
Response time	(10..90%) t(ms)							
Pressure cycles	> 10 million							
Range	p (bar)	2000	2500	4000	5000			
Overrange pressure	p (bar)	2400	3600	4800	6000			
Burst pressure	p (bar)	3000	4500	6000	7000			

Environment

Ambient temperatur	-40...125 °C
Medium temperatur	-40...105 °C
Storage temperatur	-40...125 °C
Compensated range	-20...85 °C
Temperature coefficient within the compensated range:	
Mean TC offset	% of the range ≤ 0,15 / 10K
Mean TC range	% of the range ≤ 0,15 / 10K
Shock	1000 G, 11 msec., 1/2 Sine
Vibration	25 G peak, 20 to 2000 Hz
Sealing	IP 66, optional IP69K



Specifications

Electronics

Output -> Supply	0 - 10 V -> 12 - 32 VDC 0 - 5 V -> 8 - 32 VDC non ratiometric 1 - 5 V -> 8 - 32 VDC non ratiometric 0.5 - 4.5V -> 5V ratiometric 4 - 20 mA -> 10 - 32 VDC I ² C -> 5 VDC
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Output impedance	< 100 Ω
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Current consumption	< 10 mA
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Reverse voltage protection	Yes
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Mechanics

Housing	304 stainless steel
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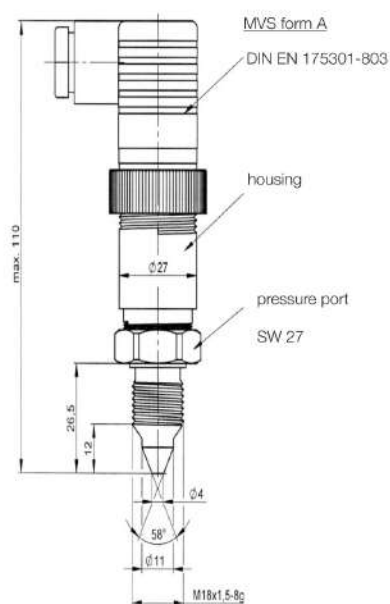
wetted parts	titanium
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Pressure port	see select table
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Electrical connection	see select table
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Weight	ca. 60 g
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Dimensions





Wiring

Type		Output	PIN 1	PIN 2	PIN 3	PIN 4
	DIN EN 175301- 803-A and C	0.5 - 4.5V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
		4..20mA	+ Supply	Current output -	N/A	-
		I ² C	N/A	N/A	N/A	-
	Round connector M12x1 A	Output	PIN 1	PIN 2	PIN 3	PIN 4
		0.5 - 4.5V , 1 - 5 V , 0 - 10 V	+ Supply	N/A	- Supply	Output +
		4..20mA	+ Supply	N/A	Current output -	N/A
		I ² C	1 V+	2 V-	3 SCL	4 SDA
	Packard Metripac	Output	PIN A	PIN B	PIN C	
		0.5 - 4.5V , 1 - 5 V , 0 - 10 V	- Supply	+ Supply	Output +	
		4..20mA	Current output -	+ Supply	N/A	
		I ² C	N/A	N/A	N/A	
	Cable assembly	Output	Red	Black	White	Green
		0.5 - 4.5V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
		4..20mA	+ Supply	Current output -	N/A	-
		I ² C	V+	V-	SCL	SDA



Ordering information

(Please use the characters in the chart below to create your product code)

Sample Code EPT31 HP - J - 200000 - B - 4 - A

Series

EPT 31 HP

Port Configuration

M18 M18 x 1.5 (up to 4000 bar)

J- 9/16 18 UNF Female (up to 5000 bar)

Pressure ranges in bar

200000 2000 bar

250000 2500 bar

400000 4000 bar

500000 5000 bar

Pressure Type

B gauge pressure

Output signal

1 0 -10 V

2 4..20 mA

3 1..5 V

4 0..5 V

5 0.5..4.5 V - (with 5V supply voltage)

6 I²C, digital (only with electrical interface A or F)

Electrical Connection

A 600mm cable

B Miniature EN175301-803-C connector

C Packard Metripac connector

D Standard EN175301-803-A connector

F M12x1 Round connector

K** Moulded cable

* Standard option

** Sealing IP69K

Custom options available on request

The EPT31HP series is backed by a 1 Year Warranty. The purchaser is responsible for compatibility of the media, functional adequacy and correct installation of the transmitter.