

- 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 automotive, industrial hydraulics, refrigeration, 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.

## Specification

### Performance

<b>Accuracy @ RT</b>	% 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)
<b>Non-linearity</b>	% of the range ≤ 0.30	
<b>Repeatability</b>	% of the range ≤ 0.20	
<b>Stability/year</b>	% of the range ≤ 0.20	
<b>Response time</b>	(10..90%) t(ms)1	
<b>Pressure cycles</b>	> 10 million	

<b>Range</b>	p (bar)	2000	2500	4000	5000
<b>Overrange pressure</b>	p (bar)	2400	3600	4800	6000
<b>Burst pressure</b>	p (bar)	3000	4500	6000	7000

### Environment

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

### Electronics

<b>Output → Supply</b>	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 <sup>2</sup> C → 5 VDC
<b>Output impedance</b>	< 100 Ω
<b>Current consumption</b>	< 10 mA
<b>Reverse voltage protection</b>	Yes

### Mechanics

<b>Housing</b>	304 stainless steel
<b>wetted parts</b>	titanium
<b>Pressure port</b>	see select table
<b>Electrical connection</b>	see select table
<b>Weight</b>	ca. 60 g

## Ordering Information

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

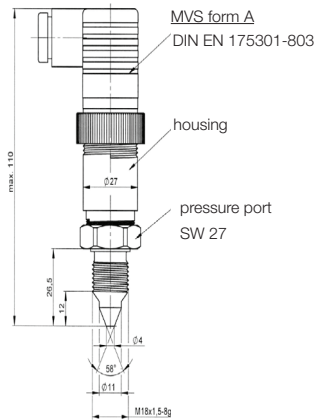
Sample Code: **EPT31HP - A - 200000 - B - 4 - A**

Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
EPT 31HP	M18 - M18 x 1.5 (up to 4000 bar) J- 9/16 - 18 UNF Female (up to 5000 bar)	200000 = 2000 bar 250000 = 2500 bar 400000 = 4000 bar 500000 = 5000 bar	B - gauge pressure	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 = I <sup>2</sup> C, digital (only with electrical interface A or F)	A - 600 mm 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.

## Dimensions



## Wiring

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