

# Pressure Sensor - EPT31H2



Eurosensor

- Up to 1000 Bar pressure range
- High strength, rugged stainless steel design
- With EC79 and EC406 approval for use with Hydrogen



The **EPT31H2** is a high quality all stainless steel pressure transducer, intended for applications around the measurement of hydrogen. With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the **EPT31H2** assures trouble free operation at temperatures up to 125° C. Its 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.

The **EPT31H2** high strength stainless steel construction contains no silicone oil and no internal O-rings. Measurements are available in gauge, with ranges up to 1,000 bar and are backed by a one-year warranty.

## Specification

Performance			Electronics	
<b>Accuracy @ RT</b>	% of the range (gauge and vacuum sensors) < 0.5 BFSL ≤ 0.125	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)	<b>Output → Supply</b>	0.5 - 4.5V → 5V ratiometric 4 - 20 mA → 10 - 32 VDC
<b>Non-linearity</b>	% of the range ≤ 0.30		<b>Output impedance</b>	< 100 Ω
<b>Repeatability</b>	% of the range ≤ 0.20		<b>Current consumption</b>	< 10 mA
<b>Stability/year</b>	% of the range ≤ 0.20		<b>Reverse voltage protection</b>	Yes
<b>Response time</b>	(10..90%) t(ms)1		Mechanics	
<b>Overrange pressure</b>	up to 2x rated pressure		<b>Material</b>	stainless steel
<b>Burst pressure</b>	up to 5x rated pressure		<b>Pressure port</b>	see select table
<b>Pressure cycles</b>	> 10 million		<b>Electrical connection</b>	see select table
Environment			<b>Weight</b>	ca. 60 g
<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 67, optional IP69K			

## Ordering Information

Standard models: **EPT31H2-M16-44800-B-5-C**  
**EPT31H2-M16-70000-B-5-C**

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

Sample Code:

**EPT31H2 - M16 - 01000 - B - 5 - A**

Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
EPT31H2	M16 - M16x1 male up to 1000 bar (EC79 is limited to 700 bar) B - 1/4 NPT max. 500 bar	Please use code from table below	B - gauge pressure V - vacuum pressure	2 = 4..20 mA 5 = 0.5..4.5 V - (with 5V supply voltage)	A - 600 mm cable C - Packard Metripac connector F - M12x1 Round connector

Custom options available on request

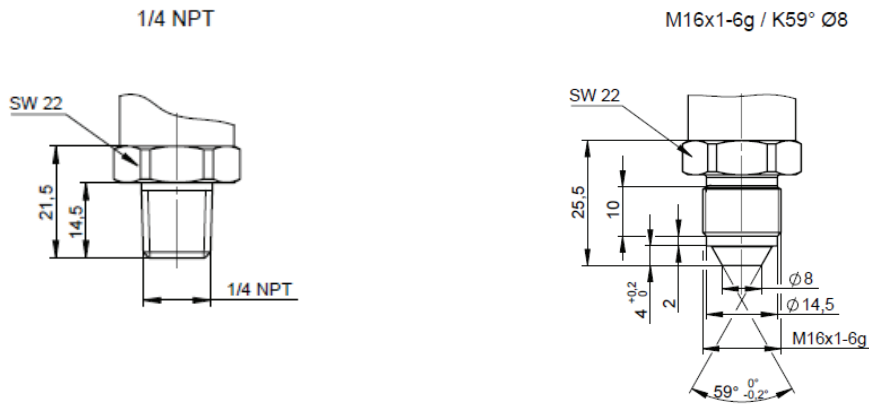
Pressure Range																	
Bar	1.0	1.6	2.5	4	6	10	16	25	40	50	60	100	160	250	400	600	1000
Order Code	00100	00160	00250	00400	00600	01000	01600	02500	04000	05000	06000	10000	16000	25000	40000	60000	100000

The EPT31H2 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.





Subject to change without notice

## Dimensions



## Wiring

Type	Output	PIN 1	PIN 2	PIN 3	PIN 4
 <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
 <b>Packard Metripac</b>	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	-
<b>Cable assembly</b>	PC	N/A	N/A	N/A	-
	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	-	
PC	V+	V-	SCL	SDA	