

Pressure Sensor - EPT12R



Eurosensor

- Up to 1500 Bar pressure range
- High strength, rugged design
- Wetted components titanium
- No internal O- rings, no internal silicone oil
- Measuring volume less than 1mm³
- Protection class IP65



The EPT12R features a high performance titanium pressure cell for high temperatures combined with well proven electronics. Together with its compact packaging format this product is ideal for powertrain or autosports test applications.

Specification

Performance		
Accuracy @ RT	% of the range 0.5 % (typ.) at room temp. < ± 1.0 % (max.) at room temp < ± 2.0 % (max.) at -20°C to +85°C 2.0 % (typ.) at -20°C to -40°C < ± 4.0 % (max.) at -20°C to -40°C 2.5 % (typ.) at +85°C to +200°C < ± 4.0 % (max.) at +85°C to +200°C	(incl. nonlinearity, hysteresis, repeatability and temperature effects. (New parts: max. drift 0.1% FS/year)
Span	4.0 V	
Output at FS	4.5 V	
Zero output	0.5 V	
Response time	Voltage output: 1.0 msec (typ.) 2.0 msec (max.) Ratiometric output: < 1.0 msec Measured from initial value to output at 90%	
Stability/year	% of the range < ± 0.1 %	
Pressure range	-1 ... 5 ... 0 ... 1500 bar	
Pressure type	sealed / gauge	
Overrange pressure	up to 2x nominal pressure (depending on pressure range)	
Burst pressure	up to 3x nominal pressure (depending on pressure range)	
Pressure cycles	> 10 million	
Environment		
Temperature range	Ambient temperature sensor -45 to 185°C Ambient temperature electronics -45 to +125°C Media temperature -45 to +200°C Storage temperature -50 to +125°C	
Shock	1000 G, 11 msec, 1/2 Sine	
Vibration	16 G peak, 20 to 2000 Hz	

Electronics	
Excitation	5 VDC for 0.5 – 4.5 V ratiometric output 12 to 32 VDC for non ratiometric output
Current consumption	10 mA min. 15 mA max.
Load resistor	5 kΩ
Output resistance	10 Ω
Isolation resistance to case	100 MΩ
Short circuit protection	Yes
Reverse voltage protection	Yes (up to 33 VDC)
Mechanics	
Housing	304 stainless steel
Wetted parts	Wetted components titanium. No internal O- rings, no internal silicone oil.
Pressure port	10-32UNF-2A / M8 Male
Electrical connection	M5 x 0.5
Weight	>120 g approx.
Mounting direction	Any
Mounting force	5 ... 25 Nm (depending on the pressure port)

Ordering information

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

Sample Code: **EPT12R - K - 01000 - B - 4 - G**

Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
EPT 12R	K - M8 Male L - 10-32UNF 2A	Please use code from table below	B - gauge pressure V - vacuum pressure	4 = 0.5...4.5 V (unregulated supply) 5 = 0.5...4.5 V - (with 5V supply voltage)	G - M5 x 0.5

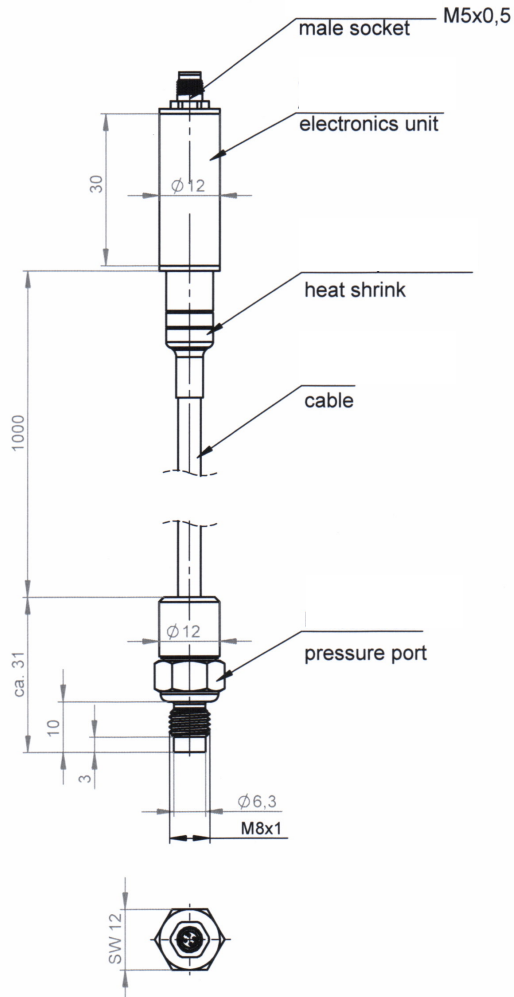
Custom options available on request

Pressure Range														
Bar	6	10	16	25	40	50	60	100	160	250	400	600	1000	1500
Order Code	00600	01000	01600	02500	04000	05000	06000	10000	16000	25000	40000	60000	100000	150000

The EPT12R 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

Output	PIN 1	PIN 2	PIN 3	PIN 4
0.5 - 4.5V	+ Supply	- Supply	n/a	GND