

Pressure Sensor - EPT3100



- Up to 4000 Bar pressure range
- High strength, rugged stainless steel design
- Competitively priced

The EPT3100 is a high quality all stainless steel pressure transducer, intended for use in the measurement of gases and liquids compatible with stainless steel.

The EPT3100 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 EPT3100 assures trouble free operation at temperatures up to 125°C.

The EPT3100 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 EPT3100 high strength stainless steel construction contains no silicone oil and no internal O-rings. Measurements are available in gauge and absolute pressure, with ranges up to 4,000 bar and are backed by a one-year warranty.



Specification

Performance			Environment	
Accuracy @ RT	% of the range (gauge and vacuum sensors) < 0.5 BFSL ≤ 0.125 % of the range (absolute sensors) < 1.0	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)	Temperature [°C]:	
Non-linearity	% of the range ≤ 0.15		Measuring medium	-40...125
Repeatability	% of the range ≤ 0.10		Ambience	-40...105
Stability/year	% of the range ≤ 0.10		Storage	-40...125
For pressure ranges above 2000 bar:			Compensated range	-20...85
Accuracy @ RT	% of the range (gauge and vacuum sensors) < 1.0 BFSL ≤ 0.5 % of the range (absolute sensors) < 1.0	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)	Temperature coefficient within the compensated range:	
Non-linearity	% of the range ≤ 0.30		Mean TC offset	% of the range ≤ 0,15 / 10K
Repeatability	% of the range ≤ 0.20		Mean TC range	% of the range ≤ 0,15 / 10K
Stability/year	% of the range ≤ 0.20		Shock	1000 G, 11 msec., 1/2 Sine
Response time	(10..90%) t(ms)1		Vibration	25 G peak, 20 to 2000 Hz
Overrange pressure	up to 2x rated pressure		Sealing	IP 66, optional IP69K
Burst pressure	up to 5x rated pressure		Electronics	
Pressure cycles	> 10 million		Output → Supply	0 - 10 V → 12 - 32 VDC 0 - 5 V → 6 - 32 VDC non ratiometric 1 - 5 V → 6 - 32 VDC non ratiometric 4 - 20 mA → 10 - 32 VDC I ² C → 5 VDC
			Output impedance	< 100 Ω
			Current consumption	< 10 mA
			Reverse voltage protection	Yes
			Mechanics	
			Housing incl. wetted parts	304 stainless steel
			Pressure port	see select table
			Electrical connection	see select table
			Weight	ca. 60 g

Ordering Information

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

Sample Code: **EPT3100 - A - 01000 - B - 4 - A**

Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
EPT 3100	A* - G 1/4" Male B* - 1/4" NPT Male C - 1/8" NPT Male D - 7/16" -20 UNF Male E - 9/16" -18 UNF Male F - M14x1.5 Male G - 1/4" SAE Female H - 3/8x24 UNF Male (Dash Size 3) M10 - M10 x 1	Please use code from table below	A - absolute pressure B - gauge pressure V - vacuum 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 ² 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

Custom options available on request

* Standard option
** Sealing IP69K

Pressure Range	
Bar	0,6 1,0 1,6 2,5 4 6 10 16 25 40 50 60 100 160 250 400 600 1000 1600 2000 4000
Order Code	00060 00100 00160 00250 00400 00600 01000 01600 02500 04000 05000 06000 10000 16000 25000 40000 60000 100000 160000 200000 400000



The EPT3100 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.

Ordering Information stock models

The following models are typically available from stock:

EPT3100-A-00600-B-2-F
 EPT3100-A-01000-B-2-F
 EPT3100-A-02500-B-2-F
 EPT3100-A-10000-B-2-F
 EPT3100-A-25000-B-2-F
 EPT3100-A-40000-B-2-F

EPT3100-H-01000-B-5-A
 EPT3100-H-10000-B-5-A
 EPT3100-H-16000-B-4-A
 EPT3100-H-16000-B-5-A

 EPT3100-H-01000-B-5-C
 EPT3100-H-01600-B-5-C

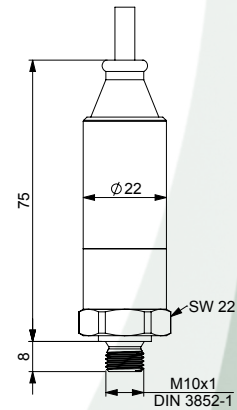
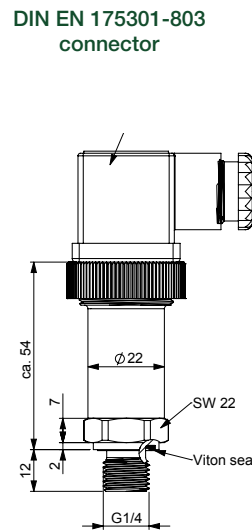
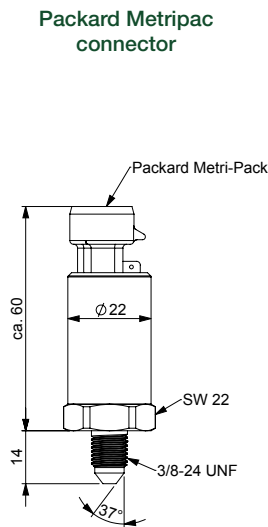
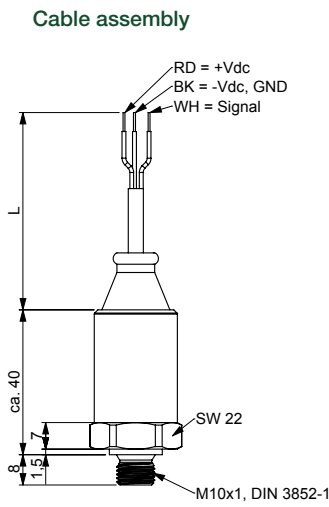
EPT3100-M10X1-01000-B-5-A
 EPT3100-M10x1-16000-B-5-A

 EPT3100-A-16000-B-1-D

Dimensions

Gauge pressure dimensions

Absolute pressure 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°C	N/A	N/A	N/A	-
 Round connector M12x1 A	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°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°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°C	V+	V-	SCL	SDA