

EPX

Miniature Threaded Pressure Transducer

- ▣ Measurement ranges 0 ... 0.35 bar to 0 ... 350 bar
- ▣ Absolute and gauge pressure
- ▣ Combined non-linearity & hysteresis 0.5 % or 1 %
- ▣ Output signal 1.5 up to 12.5 mV/V, depending on range
- ▣ Supply voltage 10 VDC



The EPX is a miniature threaded pressure sensor with stainless steel flush diaphragm compatible with general media. Threads M5 x 0.8 or 10-32 UNF are available with built-in O-ring seal for an easy installation. The EPX is offered in many pressure ranges from 0.35 to 350 bar (5 to 5000 psi) with gage, sealed gage, or absolute pressure reference. Non standard excitation, compensated temperatures, cable and thread lengths are available as options.

▣ Features

- Small Threads M5 x 0.8 or 10-32 UNF
- Ranges from 0.35 to 350 bar (5 to 5000 PSI)
- Useful frequency up to 90 kHz
- CE approved

▣ Applications

- General testing
- Automotive, marine and flight testing
- Space flight and experimentation

▣ Specifications

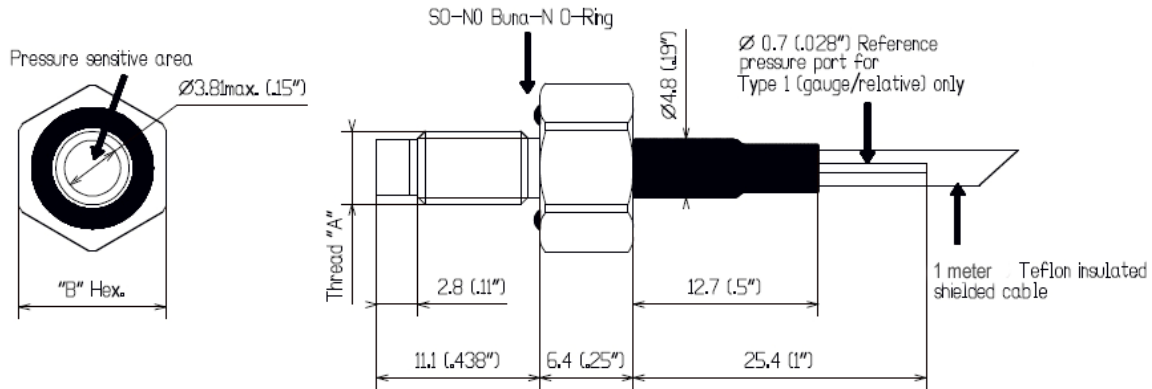
Ranges		Pressure Reference			Pressure Limit	Resonant Frequency * (nom)	Output FSO (nom)	CNL & H (% FSO)	Thermal Zero Shift (TZS) (/50 °C)
bar	psi	gauge (type 1)	sealed (type 2)	abs (type 3)					
0.35	5	•	•	•	10 x FS	45 kHz	15 mV	±1 %	±1 mV
0.7	10	•	•	•	5 x FS	50 kHz	25 mV	±1 %	±1 mV
1	15	•	•	•	3.5 x FS	65 kHz	30 mV	±1 %	±1 mV
1.5	25	•	•	•	2 x FS	65 kHz	50 mV	±1 %	±2 % FSO
3.5	50	•	•	•	2 x FS	75 kHz	75 mV	±1 %	±2 % FSO
7	100	•	•	•	2 x FS	80 kHz	125 mV	±0.5 %	±1.5 % FSO
15	250	•	•	•	2 x FS	120 kHz	125 mV	±0.5 %	±1.5 % FSO
35	500	•	•	•	2 x FS	150 kHz	125 mV	±0.5 %	±1.5 % FSO
70	1k		•	•	2 x FS	200 kHz	125 mV	±0.5 %	±1.5 % FSO
150	2.5k		•	•	1.6 x FS	300 kHz	125 mV	±0.5 %	±1.5 % FSO
350	5k		•	•	1.2 x FS	450 kHz	125 mV	±0.5 %	±1.5 % FSO

* useful frequency is 20 % of Resonant Frequency

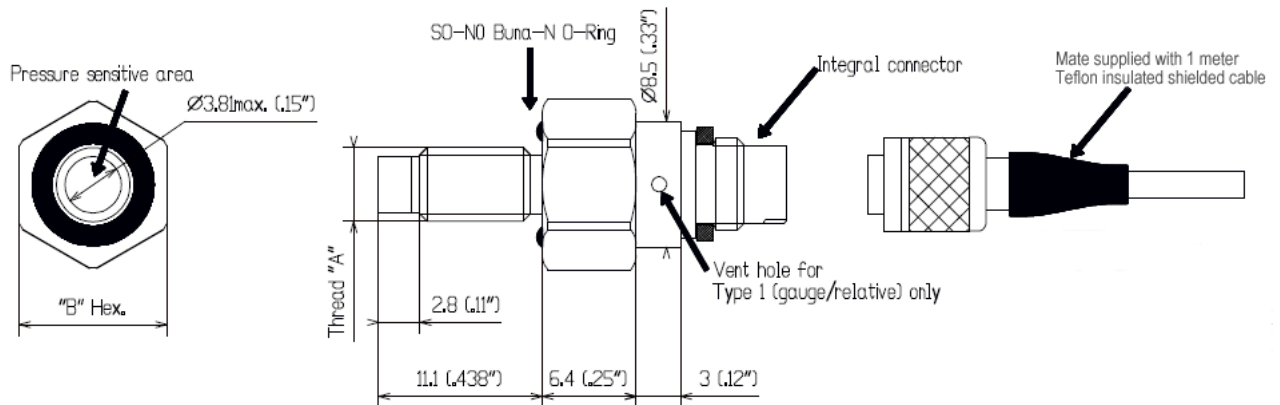
Parameter	Value	Notes
Supply voltage:	10 VDC	See option table
Input resistance, nom.:	1200 Ω	
Output resistance, nom.:	350 Ω	
Non-repeatability:	±0.25 % FSO	
Thermal sensitivity shift (TSS):	±2 %/50 °C	
Operating temperature:	-40 ... +120 °C	
Compensated temperature:	+20 ... +80 °C	See option table
Zero Offset at 23 °C:	±10 mV	
CE conformance according to	EN 61010-1, EN 50081-1, EN 50082-1	

■ Dimensions

EPX-N0 & EPX-V0:



EPX-N1 & EPX-V1:



Model	Thread "A"	"B" Hex
EPX-N0, EPX-N1	M5 x 0.8 -6g	10 mm (0.4") Hex.
EPX-V0, EPX-V1	10-32 UNF-2A	9.5 mm (3/8") Hex.

Dimensions in mm [inch], approx. values.
These drawings are for information only and not intended for construction purpose. Please ask for detailed drawings.

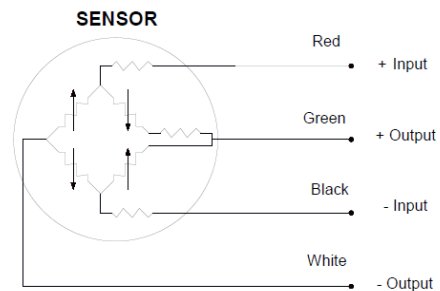
■ Installation and Connection

Recommended installation torque:

FS ≤3.5 bar (50 psi):	0.6 mN (5 In Lbs)
FS >3.5 to 35 bar (50 to 500 psi):	1.2 mN (10 In Lbs)
FS >35 bar (500 psi):	1.8 mN (15 In Lbs)

*Note: Excessive torque may change zero offset. In such cases, output should be re-zeroed through instrumentation.

Connection



Options and Accessories

Options	Codes	Descriptions
Compensated Temperature Range	Z0	-40 ... +20 °C
	Z1	-20 ... +40 °C
	Z2	0 ... +60 °C
	Z*	Non-standard (on request)
Supply voltage	V00	Replace "00" with voltage between 1 and 10. If less than 10, sensitivity FSO will decrease accordingly
	V*	Non-standard excitation with standard FSO and non-standard TSS, (on request)
Special Cable Length	L00F	Replace "00" with total length in feet
	L00M	Replace "00" with total length in meters
Custom Length Hex to Tip	0000I	Replace "0000" with thread length in inches between 0.25" to 1.5"
	0000M	Replace "0000" with thread length in millimeters between 6.3 to 38 mm
Waterproofing Cable Exit (only for models N0 or V0 sealed or absolute)	X	Short Term Waterproofing
Connector Wired to Leads or Cable	C	Microtech type male or equivalent (w/o mate)
	RS	RJ Telephone type male (w/o mate)
Extra O-Rings for EPX	SO-N0	BUNA-N
	SO-N2	Viton
	SO-N3	Teflon

Ordering Information

Model	-	Body	Pres. Ref.	-	Range/Unit (1)		-	Option
EPX	-	N0	1 = gauge	-	0.35B	5P	-	/Z0, Z1, Z2, Z*
			2 = sealed		0.7B	10P		/V1 through V10 or V*
		3 = absolute	1B		15P	/L00F, L00M		
			1.5B		25P	/0000I, 0000M		
		3.5B	50P		/X			
		7B	100P		/C, RS			
		15B	250P					
		35B	500P					
		70B	1KP					
		150B	2.5KP					
		350B	5KP					

Note 1: select ranges in BAR with body N and ranges in PSI with body V.

Examples of model construction: EPX-N13-7B-/Z1/V5/L3M/38M or EPX-V01-15P-/Z0/L6F/1.5I/C

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.