

EPRB-3

Ultra Miniature Pressure Transducer with Platinum RTD

- ▣ Measurement ranges 0 ... 3.5 bar to 0 ... 350 bar
- ▣ Absolute pressure and temperature measurement
- ▣ Combined non-linearity & hysteresis 0.25 % FSO
- ▣ Output signal 0.5 ... 4.5 V
- ▣ Supply voltage 8 ... 32 VDC, 5 VDC reg.



Ultra miniature pressure transducer with platinum RTD to sense media temperature, 100 % stainless steel welded construction with amplified output, designed for severe environment where minimum size and weight are required.

▣ Features

- Pressure and temperature measurement
- Liquid and gas media compatible with SS
- Pressure port M8x1 or 5/16-24 UNF
- Operating temperature up to 150 °C (300 °F)

▣ Applications

- Motorsports
- Downhole Exploration
- Hydraulic Pressures
- Transportation

▣ Specifications

Performance Specifications (All values are typical at temperature 20 ±1 °C)

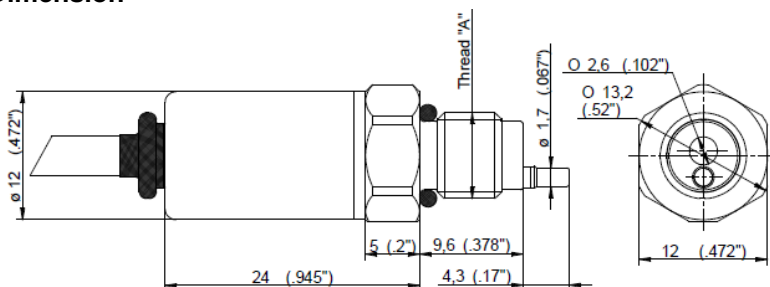
Parameter	Value	Notes
Supply voltage:	Version U: 8 ... 32 VDC; Version R: 5 VDC reg.	
Max. current:	<8 mA	
Non-repeatability:	±0.05 % FSO typ.	
Combined non-linearity & hysteresis:	±0.25 % FSO	
Long term stability:	Offset = 0.1 % span/year ; span = 0.1 %/year	
Bandwidth (-3 dB):	400 Hz	
Thermal zero shift (TZS):	±1 % FSO/100 K	
Thermal sensitivity shift (TSS):	±1 %/100 K	
Operating temperature:	-40 ... +150 °C	
Compensated temperature:	0 ... +100 °C	See option table
Output (FSO):	0.5 ... 4.5 V = 4 V ±50 mV	
Zero Offset at 23 °C:	0.5 V ±50 mV	
Vibration:	2 g (10 ... 60 Hz) and 20 g (60 Hz ... 1 kHz)	
Shock (1/2 sine):	50 g (11 ms) and 200 g (6 ms)	
Weight (without cable):	15 g + 23 g per meter of cable	
Temperature sensor RTD:	1000 Ohm Platinum DIN EN60751	63 % response time: 3 s max.
Ingress protection:	IP66	

Pressure Ranges		Pressure Reference	Pressure Limit
Bar	psi	abs (type 3)	Model: S & Q
3.5	50	•	2 x FS
6	100	•	2 x FS
10	150	•	2 x FS
20	300	•	2 x FS
35	500	•	2 x FS
60	1k	•	2 x FS
100	1.5k	•	2 x FS
200	3k	•	1.5 x FS
350	5k	•	1.2 x FS

CE compliance

EN55022	Emissions Class A & B
IEC61000-4-2	Electrostatic Discharge Immunity (1kV contact)
IEC61000-4-3	Field Immunity (3V/m)
IEC61000-4-4	Electrical Fast Transient Immunity (1kV)

Dimension



All dimensions in mm (inches), approx. values.
These drawings are for information only and not intended for construction purpose.
Please ask for detailed drawings.

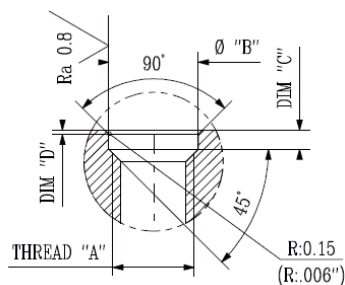
Model	Thread	O-Ring supplied	Installation Torque (max.)
S	M8x1	$\varnothing 6.35 \times 1.6$ viton	2.5 Nm (22 In-Pounds)
Q	5/16-24 UNF-2A	$\varnothing 6.35 \times 1.6$ viton	2.5 Nm (22 In-Pounds)

Installation and Connection

Recommended mounted port

Thread "A"	Dim "B"	Dim "C"	Dim "D"
M8x1	8.8 mm	1.9 mm	0.4 mm
5/16-24 UNF	0.35"	0.075"	0.015"

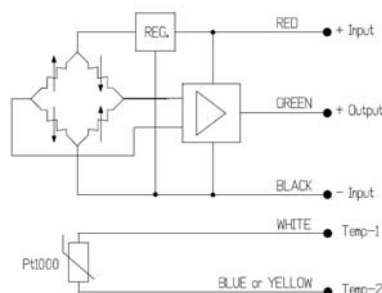
Tolerances on dimensions = ± 0.05 mm (0.002")



WIRING: shielded cable (4 x AWG26)

Standard: 1 meter of unshielded cable 5 x AWG24

Option SC00M: shielded cable 5 x AWG24
(replace "00" with total length in meter)



Options and Accessories

Options	Codes	Descriptions
Compensated Temperature Range	Z1	-20 ... +40 °C
Compensated Temperature Range	Z35	+20 ... +120 °C
Shielded cable	SC00M	Replace "00" with total length in meters (SC1M; SC3M; SC5M ...)
Acceptance Test Report	ATR	A complete Acceptance Test Report provided with transducer

Ordering Information

Model	-	Pressure Port	Supply Voltage	Output Signal	Pres. Ref.	-	Range/Unit	-	Option
EPRB-3	-	S = M8x1 Q = 5/16-24 UNF	U = 8 ... 32 VDC R = 5 VDC reg.	3 = 0.5 ... 4.5 V	3 = absolute	-	3.5B 50P 6B 100P 10B 150P 20B 300P 35B 500P 60B 1KP 100B 1.5KP 200B 3KP 350B 5KP	-	/Z1 /Z35 /SC00M /ATR

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