EPRB-1 series
Miniature Pressure Transducer



SPECIFICATIONS

- Ranges from 3.5 to 700 bar (50 to 7500 psi)
- Combined linearity & hysteresis < 0.25%
- Operating temperature -40℃...120℃
- M8X1, M10X1Variety of pressure ports Optional

FEATURES

- Liquid and gas media compatible with SST304 or 17-4PH
- Miniature design (body ø11 mm)
- Weather-proof rate up to IP68

APPLICATIONS

- Motorsports
- Downhole Exploration
- Hydraulic Pressures
- Transportation

STANDARD RANGES

Range (psi)	Range (Bar)	Gage	Seal	Absolute	Compound	
0...50	0...3.5	•		•	•	
0...100	0...7	•		•	•	
0...150	0...10	•		•	•	
0...300	0...20	•		•	•	
0...500	0...35	•		•	•	
0...1000	0...70	•		•	•	
0...1500	0...100	•		•	•	
0...2250	0...150	•		•	•	
0...3000	0...200	•		•	•	
0...5000	0...350	•		•	•	
0...7500	0...500	•		•	•	•

Note: Intermediate ranges available upon request. For "●S" ,plesae confirm with factory.

PERFORMANCE SPECIFICATIONS

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNIT	NOTES
Accuracy (combined non linearity, hysteresis, and repeatability)	-0.5	±0.25	0.5	%F.S. BFSL	@ 25°C
Zero Error	-0.5	±0.5	0.5	%F.S.BFSL	@ 25°C
Full Scale Error	-0.5	±0.5	0.5	%F.S.BFSL	@ 25°C
Isolation (Body to any Lead)	100			MΩ	@ 250VDC
Pressure Cycles	1X107			0~FS Cycles	
Proof Pressure	2X		20k psi	Rated	
Burst Pressure	3X		20k psi	Rated	
Long Term Stability (1 year)	-0.25		0.25	%F.S	
Total Error Band	-1	±1.0	1	%F.S	/100°C
Compensated Temperature	-20		85	°C	
Operating Temperature	-40		125	°C	Except cable 105°C max
Storage Temperature	-40		125	°C	Except cable 105°C max
Load Resistance (RL)	RL > 100k			Ω	Voltage Output
Load Resistance (RL)	<Supply Voltage -9V) / 0.02A			Ω	Current Output
Current Consumption			5	mA	Voltage Output
Rise Time (10% to 90%)	<2ms (Voltage Output); <3ms (Current Output); Without Snubber				
Pressure Port Material	17-4PH+SST304 or 17-4 Integral Screw				
Shock	50g, 11msec Half Sine Shock per MIL-STD-202G, Method 213B, Condition A				
Vibration	±20g, MIL-STD-810C, Procedure 514.2-2, Curve L				

Notes: For custom configurations, please consult factory.

Pressure range under 0...70bar, customer to ensure venting through mating connector.

Compensated Temperature: The temperature range over which the product will produce an output proportional to pressure within the specifiedperformance limits.

Operating Temperature: The temperature range over which the product will produce an output proportional to pressure but may not remainwithin the specified performance limits.

Storage Temperature: The temperature range over which the product can be stored safely in occasions without pressure applied or power nput and remains rated performance. Beyond this temperature range may cause permanent damage to the product.

All configurations are built with supply voltage reverse and output short-circuit protections.

CE Compliance (just for reference)

EN 55022 Emissions Class A & B

IEC 61000-4-2 Electrostatic Discharge Immunity (8kV contact/15kV air)

IEC 61000-4-3 Radiated, Radio-Frequency Electromagnetic Field Immunity (10V/m, 80M-1GHz)

IEC 61000-4-4 Electrical Fast Transient Immunity (1kV)

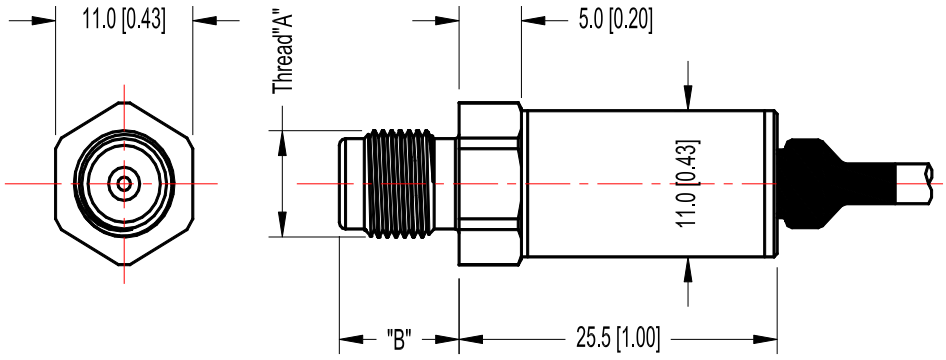
IEC 61000-4-5 Surge Immunity (V+ to V-: ±2KV/42Ω; L to Case: ±1KV/12Ω; V- to V0: ±1KV/42Ω)

IEC 61000-4-6 Immunity to Conducted Disturbances Induced by Radio Frequency Fields (150K~80MHz, 10V level for voltage output models, 3V level for current output model)

IEC 61000-4-9 Pulse Magnetic Field Immunity (100A/m peak)

For all CE compliance tests, max allowed output deviation ±1.5 %F.S. (Just Factory Testing)

DIMENSIONS [mm]

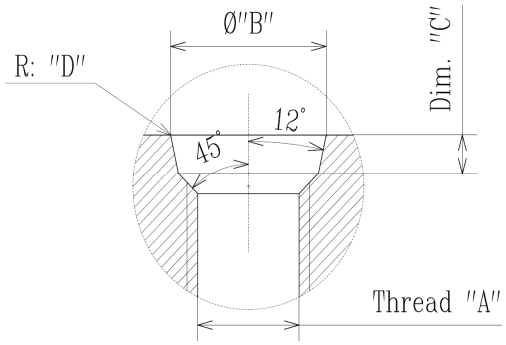


PRESSURE PORT TYPE

CODE	Thread "A"	Length"B"	O-ring	Intallation Torque
N	M5X0.8	6.6 (.26″)	Ø3.5x1.5 FKM	1Nm(2Nm Max)
V	10-32 UND-2A	6.6 (.26″)	Ø3.5x1.5 FKM	1Nm(2Nm Max)
N	M8X1	7.6 (.30″)	Ø6.07x1.63 FKM	2.5Nm(5Nm Max)
Q	5/16-24 UNF	7.6 (.30″)	Ø6.07x1.63 FKM	2.5Nm(5Nm Max)
P	M10X1.0	8.2 (.32")	Ø7.65x1.63 FKM	5Nm(7Nm Max)
X	3/8-24 UNF-2A	8.2 (.32")	Ø7.65x1.63 FKM	5Nm(7Nm Max)

INSTALLATION & CONNECTION

Thread "A"	Dim. "B"	Dim. "C"	Dim. "D"
M5X0.8	6.35 mm	1.5 mm	0.2 mm
10-32 UND-2A	0.52″	0.059″	0.008″
M8X1	9.1 mm	1.9 mm	0.012 mm
5/16-24 UNF	0.35″	0.074″	0.012″
M10X1	10.7 mm	1.9 mm	0.3 mm
3/8-24 UNF-2A	0.421"	0.074″	0.012″



OUTPUTS

CODE	OUTPUT SIGNAL	SUPPLY VOLTAGE
3	4 - 20mA	9 - 36V
4	0 - 5V	8 - 36V
7	0.5 - 4.5V	7.5- 36V

WIRING

Current Output Wiring					
CONNECTION	+SUPPLY	-SUPPLY	NC.PINS		P REF VENT
Cable	RED	BLACK	WHITE	GREEN	Hole Through Cable

Voltage Output Wiring					
CONNECTION	+SUPPLY	+OUTPOT	COMMON	NC.PINS	P REF VENT
Cable	RED	WHITE	BLACK	GREEN	Hole Through Cable

Options

Codes	Option	Description
L01M	Special Cable Length (standard = 1 m)	Replace "00" with total length in meters (for example L3M ; L5M ; L10M...)

订购信息

EPRB-1 – S 1 1 – 500P – L01M

Pressure Port	
N	M5X0.8
V	10-32 UND-2A
S	M8X1
Q	5/16-24 UNF
P	M10X1
X	3/8-24 UNF-2A

Options
L0.5M
L01M

Output Signal		
Code	Output	Supply Voltage
3	4 – 20 mA	9 – 36 VDC
4	0 – 5 V	8 – 36 VDC
7	0.5 – 4.5 V	7.5- 36 VDC
X	客户定制	

Pressure Range	
3.5B	50P
6B	100P
10B	150P
20B	300P
35B	500P
70B	1KP
100B	1.5KP
150B	2.2KP
200B	3KP
350B	5KP
500B	7.5KP

Pressure Reference
1 Gage
2 Compound
3 Absolute