



## FEATURES

- Liquid and gas media compatible with Stainless Steel
- Miniature design (body  $\varnothing$ 11 mm)
- IP66 rating

## APPLICATIONS

- Motorsports
- Downhole Exploration
- Hydraulic Pressures
- Transportation

## EPRB-1

### Miniature Pressure Transducer

#### SPECIFICATIONS

- Ranges from 3.5 to 700 bar (50 to 10,000 psi)
- Unique pressure reference version Absolute
- Combined linearity & hysteresis < 0.25%
- Operating temperature up to 150 °C (300 °F)
- 0.5 to 4.5V amplified output

**EPRB-1** is an ultra miniature pressure transducer, he is made of 100% stainless steel welded construction. It is designed for severe environment where minimum size and light weight are required.

**EPRB-1** models have amplified output, either 5Vdc regulated or 8-30V<sub>DC</sub> or 4-20 mA for use on vehicle, military, test equipment or on a test bench.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

## STANDARD RANGES

RANGES (FS)		REF. PRESSURE	PROOF PRESSURE	BURST PRESSURE
bar	psi	abs. (type3)	(rated pressure)	(rated pressure)
3.5	50	•	2 x FS	3 x FS
6	100	•	2 x FS	3 x FS
10	150	•	2 x FS	3 x FS
20	300	•	2 x FS	3 x FS
35	500	•	2 x FS	3 x FS
60	1K	•	2 x FS	3 x FS
100	1.5K	•	2 x FS	3 x FS
200	3K	•	2 x FS	3 x FS
350	5K	•	2 x FS	3 x FS
700	10K	•	1.5 x FS	2 x FS

## PERFORMANCE SPECIFICATIONS (typical values at temperature 23°C)

PARAMETERS	VALUES	NOTES
Supply Voltage	Version U: 8 to 32 V <sub>DC</sub> Version R: 5 V <sub>DC</sub> reg.	
Max Current	< 8 mA	
Non-Repeatability	±0.05% FS	
Combined Non-Linearity & Hysteresis	± 0.25% FS	
Long term stability	Zero Offset = 0.1%FS/year Sensitivity = 0.1%/year	
Bandwidth (-3 dB)	400 Hz	
Thermal Zero Shift "TZS" in CTR	±1% FS /50°C ± 0.5%FS /50° C	Ranges ≤ 10 bar or 150 psi Ranges > 10 bar or 150 psi
Thermal Sensitivity Shift "TSS" in CTR	±0.75% /50°C ± 0.5% /50° C	Ranges ≤ 10 bar or 150 psi Ranges > 10 bar or 150 psi
Operating Temperature Range (OTR)	-40° C to 150° C	
Compensated Temperature Range (CTR)	0° C to 100° C	
Sensitivity "FSO"	4V ± 50mV	Signal 0.5 to 4.5V for 0 to FS
Zero Offset	0.5V ±100mV 0.5V ± 50mV	Ranges ≤ 10 bar or 150 psi Ranges > 10 bar or 150 psi
Vibration	2g (10Hz to 60Hz) and 20g (60Hz to 1 KHz)	
Shock (1/2 sine)	50g (11 ms) and 200g (6 ms)	
Weight (without cable)	13g + 20g per meter of cable	
Ingress Protection	IP66	

## CE compliance

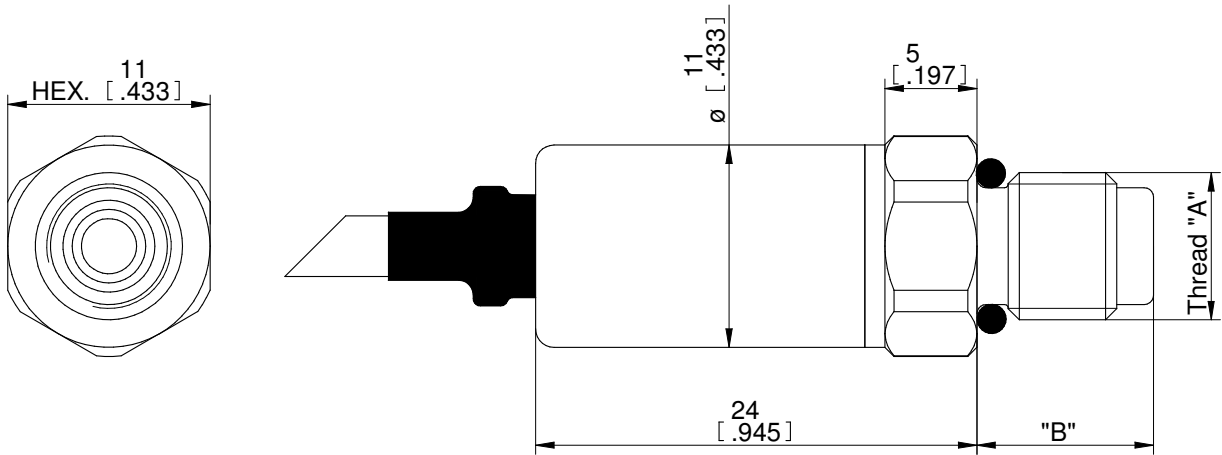
EN55022 Emissions Class A &amp; B

IEC61000-4-2 Electrostatic Discharge Immunity (1kV contact)

IEC61000-4-3 EM Field Immunity (3V/m)

IEC61000-4-4 Electrical Fast Transient Immunity (1kV)

## DIMENSIONS

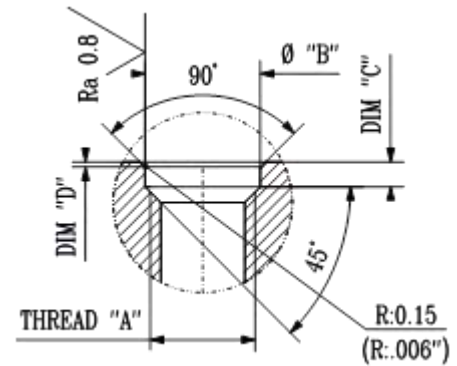


MODEL	THREAD "A"	LENGTH "B"	O-RING SUPPLIED	INSTALLATION TORQUE
N	M5x0.8	8.6 (.34")	Ø3.5x1.5 FKM Fluoroelastomer	1 Nm (2 Nm max.)
V	10-32 UNF-2A	8.6 (.34")	Ø3.5x1.5 FKM Fluoroelastomer	1 Nm (2 Nm max.)
S	M8X1	9.6 (.38")	Ø6.07x1.78 FKM Fluoroelastomer	2.5 Nm (5 Nm max.)
Q	5/16-24 UNF-2A	9.6 (.38")	Ø6.07x1.78 FKM Fluoroelastomer	2.5 Nm (5 Nm max.)

## INSTALLATION & CONNECTION

### RECOMMENDED MOUNTED PORT

Thread "A"	Dim. "B"	Dim. "C"	Dim. "D"
M5x0.8	5.6 mm	1.5 mm	0.2 mm
10-32 UNF	0.22"	0.060"	0.01"
M8x1	8.8 mm	1.9 mm	0.4 mm
5/16-24 UNF-2A	0.35"	0.075"	0.015"

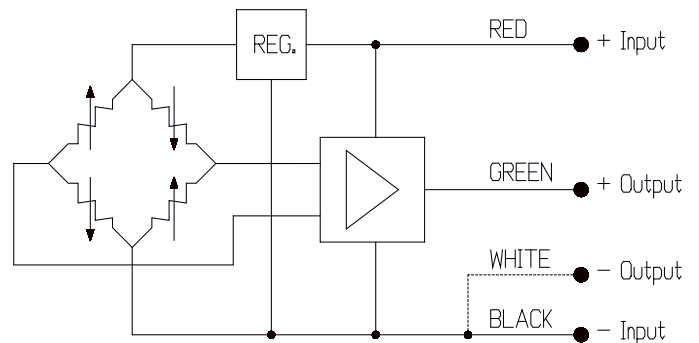


Tolerances on dimensions = ± 0.05 mm (0.002")

### WIRING:

Standard: 1 meter of unshielded cable 3 x AWG24

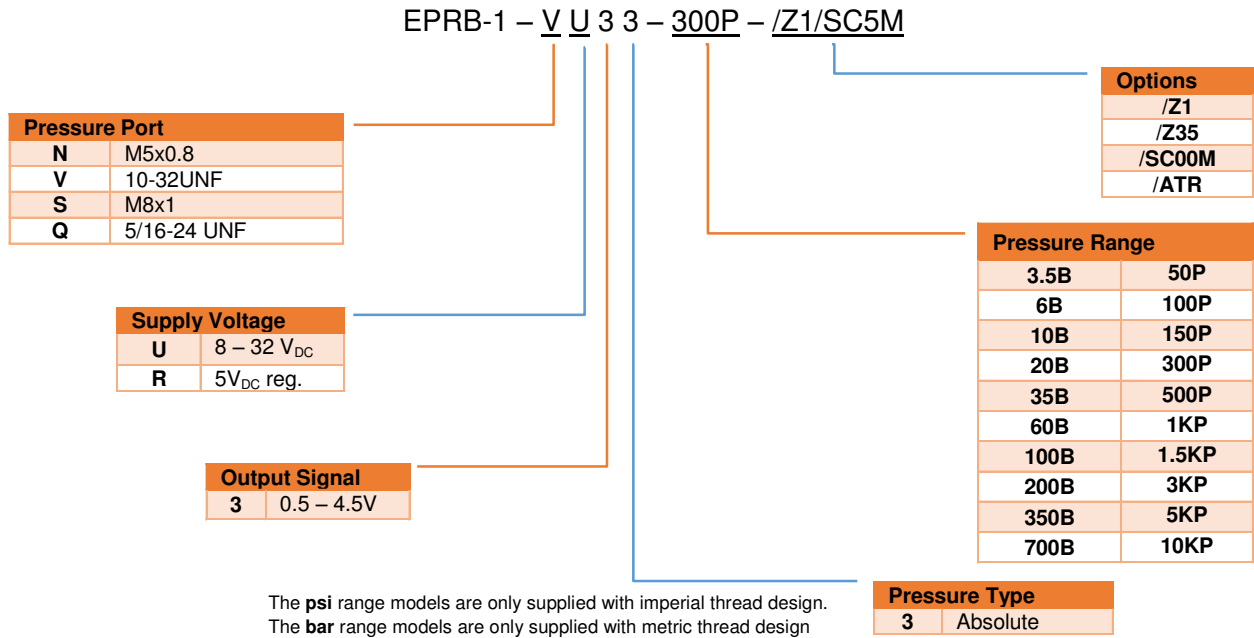
Option **SC00M**: shielded cable 4 x AWG26  
(Replace "00" with total length in meter;  
cable shield is connected to sensor's body)



## OPTIONS AND ACCESSORIES

OPTIONS	CODES	DESCRIPTIONS
Compensated Temperature Ranges	<b>Z1</b> <b>Z35</b>	-20° C to 40° C +20° C to 120° C
Shielded cable (4 leads x AWG26)	<b>SC00M</b>	Replace "00" with total length in meters (SC1M ; SC3M ; SC5M...)
Acceptance Test Report	<b>ATR</b>	ATR for a complete Acceptance Test Report provided with transducer

## ORDERING INFORMATION



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