



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 ratiometric or 8-30V_{DC} 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)		Pressure Reference	Pressure Overload	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

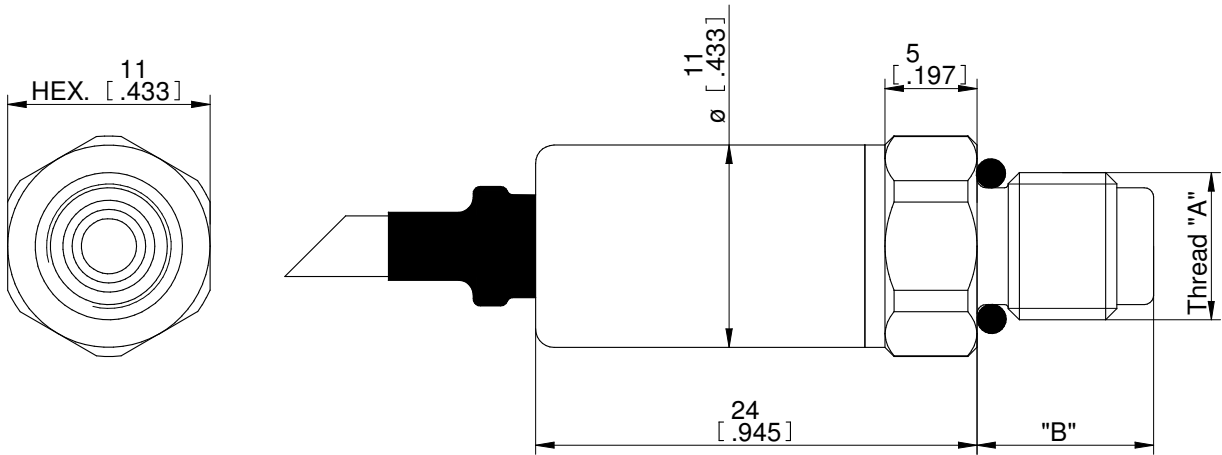
PERFORMANCE SPECIFICATIONS (typical values at temperature 23±3°C)

PARAMETERS	VALUES	NOTES
Supply Voltage	Version U: 8 to 32 V _{DC} Version R: 5 V _{DC} reg.	
Max Current	< 8 mA	
Non-Repeatability	±0.05% FS	
Combined Non-Linearity & Hysteresis	± 0.25% FS	
Long term stability	Zero Offset = 0.1%/year Sensitivity = 0.1%/year	
Bandwidth (-3 dB)	400 Hz	
Thermal Zero Shift "TZS" in CTR	±2% FS /100°C ± 1%FS /100° C	Ranges ≤ 10 bar or 150 psi Ranges > 10 bar or 150 psi
Thermal Sensitivity Shift "TSS" in CTR	±1.5% /100°C ± 1% /100° 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 & 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



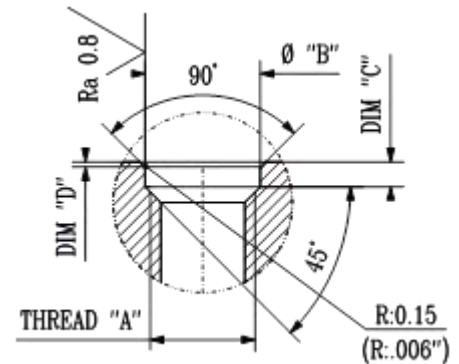
PHYSICAL (SEE BLOCK DIAGRAM)

MODEL	THREAD "A"	THREAD LENGTH "B"	O-RING SUPPLIED	RECOMMENDED 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")	Ø6.35x1.6 FKM Fluoroelastomer	2.5 Nm (5 Nm max.)
Q	5/16-24 UNF-2A	9.6 (.38")	Ø6.35x1.6 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"

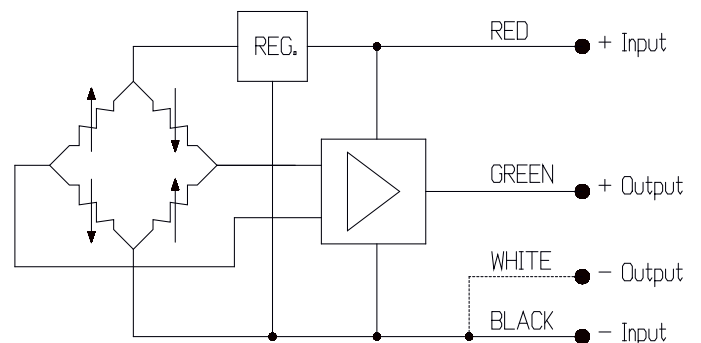


Tolerances on dimensions = ± 0.05 mm (0.002")

WIRING:

Standard: 1 meter of unshielded cable 3 x AWG24

Option **SC00M**: shielded cable 4 x AWG26
 (Replace "00" with total length in meter;
 The shield is not connected to sensor's body)



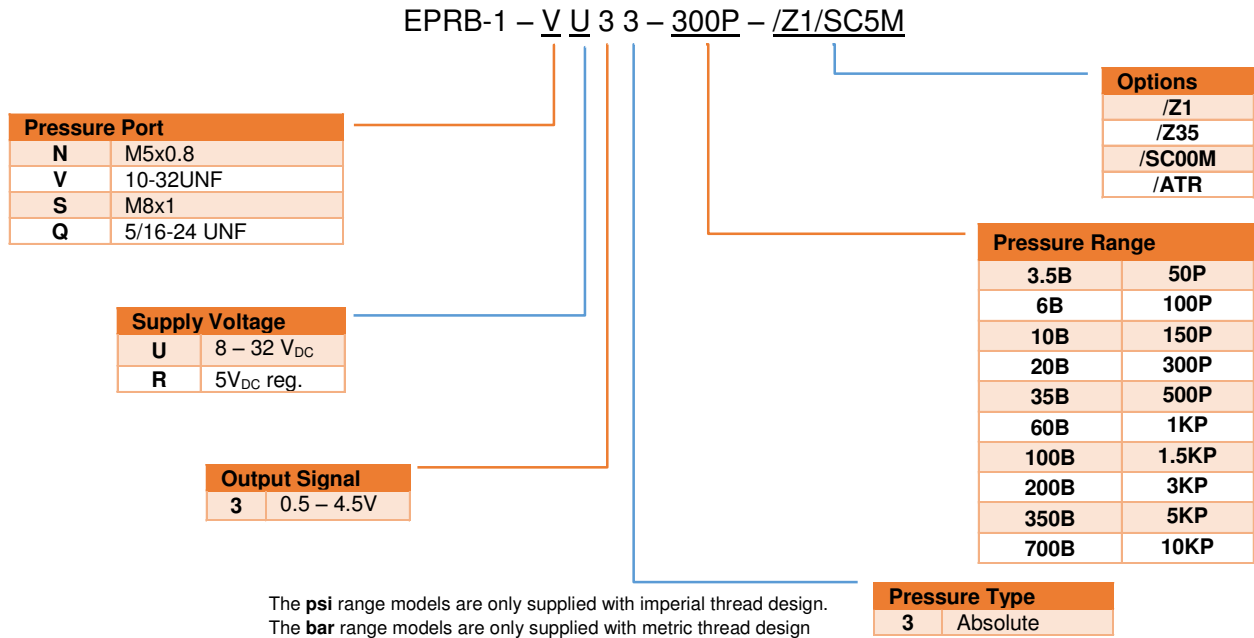
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OPTIONS AND ACCESSORIES

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

ORDERING INFORMATION



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