

Safety Rated Velocity Sensor

Dynamic Performance

Sensitivity ($\pm 10\%$)	3937 mV/m/s (100 mV/in/s)
Measurement Range	± 1.27 m/s (± 50 in/s)
Frequency Range (± 3 dB)	3 to 9000 Hz (180 to 540,000 cpm)
Mounted Resonant Frequency	20 kHz Nominal
Amplitude Linearity	$\pm 1\%$ (0 Based, Least Squares, Straight Line)
Transverse Sensitivity	$\leq 5\%$

Environmental

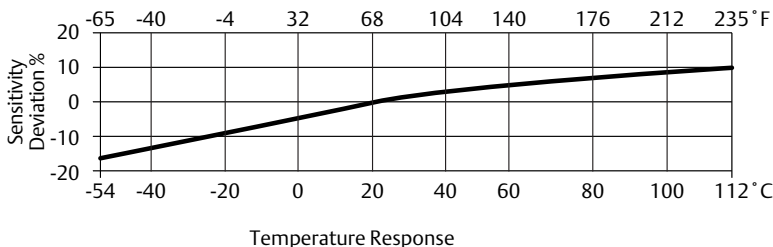
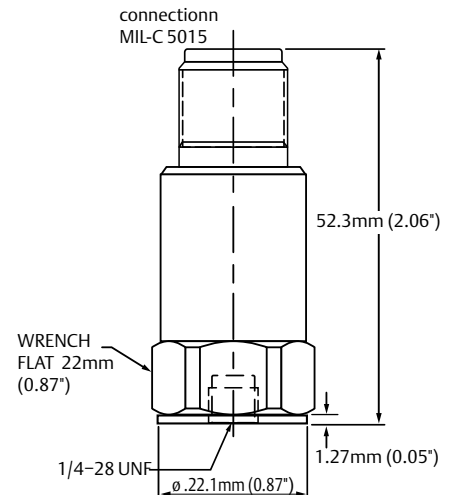
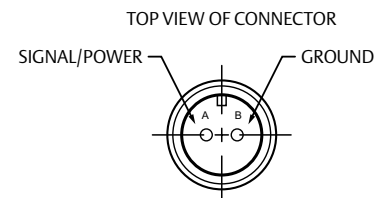
Shock Limit	5000g pk (49050 m/s ²)
Temperature Range	-54 to 121°C (-65 to 250°F)
Sealing	IP68 / Welded Hermetic
Agency Ratings:	CE ATEX EX II 1G, EEx ia IIC T4 -54 \leq Ta \leq 121°C, II 1G

Electrical

Settling Time	≤ 30 sec (within 1% of bias)
Excitation Voltage / Current	18 to 28 VDC / 2 to 10 mA
Output Impedance	< 100 ohms
Output Bias	8 to 12 VDC
Broadband Resolution (< 10 KHz)	450 μ m/s (11.4 μ m/s) Electrical Noise
Case Isolation	$> 10^8$ ohms

Mechanical

Weight / Case Material	94 grams (3.3 oz) / Stainless Steel
Mounting Thread / Torque	1/4-28 UNF-2B / 2.7 to 6.8 Nm (2 to 5 lb ft)
Sensor Element / Geometry	Ceramic / Shear
Connector Type (Top)	MIL-C-5015, 2 Pin



Supplied Accessories

Three Point Calibration

¼-28 Mounting Stud, either ¼ 28 to M6x1 or M10x1

Typical Part Numbers

PR9270V-Ex	Velocity Sensor only	9200-00110
PR9670/000-000:	5 m, Shielded 2 wire, no armor, blunt cut Cable	9700-00046
PR9670/001-000:	10 m, Shielded 2 wire, no armor, blunt cut Cable	9700-00047
PR9670/003-000:	20 m, Shielded 2 wire, no armor, blunt cut Cable	9700-00049
Harting Connection Assembly	6 Pin M and F with Housings	9500-00064

Order Matrix

Connection Cables:	PR9670	X	X	X	-	X	0	0	EX
Shielding: Electronic Side Sensor Side		0 1							
Protection tube: Without With			0 1						
Cable Length: 5 m 10 m 15 m 20 m				0 1 2 3					
Connection: Open Cable End Harting Plug						0 1			
Installation Areas: Ex- type Standard, non Ex (without addition)									Ex

Exclusively the electronic side shielded cables are also available as Ex- types. Ex-approval is only available if piezo-electric sensors of type PR9270-Ex or PR9270V-Ex are used.

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