

Model Number
642A62

4-20 MA OUTPUT VELOCITY SENSOR

Revision: A
ECN #: 51736

Performance

	ENGLISH	SI	
Measurement Range	0.0 to 2 in/sec pk	0 to 50.8 mm/s pk	[1]
Output	4-20 mA	4-20 mA	
Frequency Range(± 10 %)	180 to 60,000 cpm	3 to 1 kHz	[2][3]
Broadband Resolution	0.01 in/sec rms	0.26 mm/s rms	[4]
Non-Linearity	± 1 %	± 1 %	

Environmental

Temperature Range	-40 to 185 °F	-40 to 85 °C	
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Electrical

Excitation Voltage	12 to 30 VDC	12 to 30 VDC	
Settling Time(within 2% of value)	< 15 sec	< 15 sec	
Electrical Isolation(Case)	> 10 ⁸ Ohm	> 10 ⁸ Ohm	

Physical

Size (Hex x Height)	7/8 in x 1.41 in	22.2 mm x 35.8 mm	
Weight(without cable)	3.8 oz	108 gm	
Mounting Thread	1/4-28 UNF	1/4-28 UNF	
Mounting Torque(Stud)	3 to 4 ft-lb	4.1 to 5.4 Nm	[5][6]
Mounting Torque(hex nut)	2 to 3 ft-lb	2.7 to 4.1 Nm	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	Integral Armored Cable	Integral Armored Cable	
Electrical Connection Position	Side	Side	
Cable Termination	Blunt cut	Blunt cut	
Electrical Connections(Red)	4-20 mA Pos (+)	4-20 mA Pos (+)	
Electrical Connections(Blue)	4-20 mA Neg (-)	4-20 mA Neg (-)	
Cable Length	10 ft	3.0 m	
Cable Type	Polyurethane	Polyurethane	

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used. [8]

EX - Hazardous Area Approval- contact factory for specific approvals

M - Metric Mount
Supplied Accessory: Model M080A163A (1) replaces Model 080A162

NOTES:

- [1] Conversion Factor 1 in/sec = 0.0254 m/sec.
- [2] 1Hz = 60 cpm (cycles per minute).
- [3] Current will fluctuate at frequencies below 5 Hz.
- [4] Typical value.
- [5] 1/8" hex Allen key required for English version, 3mm hex Allen key required for metric version.
- [6] Stud torque must exceed sensor hex nut torque to ensure proper dismantling.
- [7] See PCB Declaration of Conformance PS039 or PS053 for details.
- [8] EEx ia IIC T4.

SUPPLIED ACCESSORIES:

Model 080A162 Mounting Stud (1)
Model ICS-4 NIST-traceable single-axis amplitude response calibration from 0 cpm (0 Hz) to upper 10% frequency for 4 - 20 mA output vibration sensor



All specifications are at room temperature unless otherwise specified.
In the interest of constant product improvement, we reserve the right to change specifications without notice.
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Entered: ND	Engineer: gs	Sales: JL	Approved: BAM	Spec Number:
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