Model Number	4-20 MA OUTPUT VELOCITY SENSOR WITH TEMPERATURE	Revision: B
TO642A31		ECN #: 43341

Performance	**ENGLISH**	**SI**	
Measurement Range(Vibration)	0.0 to 1.0 in/sec pk	0.0 to 25.4 mm/s pk	[2]
Measurement Range(Temperature)	-40 to 257 °F	-40 to 125 °C	[1]
Output	4-20 mA	4-20 mA	
Frequency Range(± 10 %)	180 to 60,000 cpm	3 to 1 kHz	[3][4]
Broadband Resolution	0.005 in/sec pk	0.13 mm/s pk	[5]
Non-Linearity	± 1 %	± 1 %	
Environmental			
Temperature Range	-40 to 185 °F	-40 to 85 °C	[1]
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 1.68 in	22.2 mm x 42.7 mm	
Weight	3.9 oz	111 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	[6][7]
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	4-Pin Bayonet	4-Pin Bayonet	
Electrical Connection Position	Side	Side	
Electrical Connections(Pin A)	Vibration, 4-20 mA Pos.	Vibration, 4-20 mA Pos.	
Electrical Connections(Pin B)	Vibration, 4-20 mA Neg.	Vibration, 4-20 mA Neg.	
Electrical Connections(Pin C)	Temperature, 4-20 mA Pos.	Temperature, 4-20 mA Pos.	
Electrical Connections(Pin D)	Temperature, 4-20 mA Neg.	Temperature, 4-20 mA Neg.	

CE[8]

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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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.

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

NOTES:

[1]Vibration 4-20mA output accuracy is limited to 185°F (85°C)
[2]Conversion Factor 1 in/sec = 0.0254 m/sec.
[3]1Hz = 60 cpm (cycles per minute).
[4]Current will fluctuate at frequencies below 5 Hz.
[5]Typical value.
[6]1/8" hex Allen key required for English version, 3mm hex Allen key required for metric version.
[7]Stud torque must exceed sensor hex nut torque to ensure proper dismantling.
[8]See PCB Declaration of Conformance PS039 for details.

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 (1)

Entered: AP	Engineer: DK	Sales: EGY	Approved: BAM	Spec Number:
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