

Model Number 643A11		4-20 MA OUTPUT VELOCITY SENSOR			Revision: A ECN #: 43341	
Performance		ENGLISH		SI	OPTIONAL VERSIONS	
Measurement Range		0.0 to 1 in/sec rms		0 to 25.4 mm/s rms	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.	
Output		4-20 mA		4-20 mA		
Frequency Range(± 10 %)		600 to 60,000 cpm		10 to 1 kHz		
Broadband Resolution		0.005 in/sec rms		0.13 mm/s rms		
Non-Linearity		± 1 %		± 1 %		
Environmental					EX - Hazardous Area Approval- contact factory for specific approvals	
Temperature Range		-40 to 185 °F		-40 to 85 °C	Hazardous Area Approval DIV II, CL I, GRPS A-D, ExnL, DIV II, CL I, GRPS A-D, ExnL, AExnA, IIC T4 AExnA, IIC T4	
Electrical					Hazardous Area Approval EEx ia IIC T4, -40°C≤Tas80°C, EEx ia IIC T4, -40°C≤Tas80°C, II 1 G II 1 G	
Excitation Voltage		12 to 30 VDC		12 to 30 VDC	Hazardous Area Approval EEx nL IIC T4, -40°C≤Tas80° EEx nL IIC T4, -40°C≤Tas80° C, II 3 G C, II 3 G	
Settling Time(within 2% of value)		<15 sec		<15 sec	Hazardous Area Approval DIV I, CL I, II, III, GRPS A-G, DIV I, CL I, II, III, GRPS A-G, Exia, AExia, IIC T4 Exia, AExia, IIC T4	
Electrical Isolation(Case)		>10 ⁸ Ohm		>10 ⁸ Ohm		
Physical					M - Metric Mount	
Size (Hex x Height)		7/8 in x 1.41 in		22.2 mm x 35.8 mm	Supplied Accessory : Model M080A163A (1) replaces Model 080A162	
Weight(without cable)		3.8 oz		108 gm		
Mounting Thread		1/4-28 UNF		1/4-28 UNF	RV - Buffered Analog Signal Output - 100 mV/g (±20%)	
Mounting Torque(Stud)		3 to 4 ft-lb		4.1 to 5.4 Nm	Electrical Connector Integral Cable	
Mounting Torque(hex nut)		2 to 3 ft-lb		2.7 to 4.1 Nm	Electrical Connections(Red) 4-20 mA Pos (+) 4-20 mA Pos (+)	
Sensing Element		Ceramic		Ceramic	Electrical Connections(Black) 4-20 mA Neg (-) 4-20 mA Neg (-)	
Sensing Geometry		Shear		Shear	Electrical Connections(White) Signal Output Pos Signal Output Pos	
Housing Material		Stainless Steel		Stainless Steel	Electrical Connections(Green) Signal Output Neg Signal Output Neg	
Sealing		Welded Hermetic		Welded Hermetic		
Electrical Connector		Integral Cable		Integral Cable		
Electrical Connection Position		Side		Side		
Cable Termination		Pigtail Ends		Pigtail Ends		
Electrical Connections(Red)		4-20 mA Pos (+)		4-20 mA Pos (+)	NOTES:	
Electrical Connections(Blue)		4-20 mA Neg (-)		4-20 mA Neg (-)	[1]Conversion Factor 1 in/sec = 0.0254 m/sec.	
Cable Length		10 ft		3.0 m	[2]1Hz = 60 cpm (cycles per minute).	
Cable Type		Polyurethane		Polyurethane	[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.	
					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	
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