

Model Number  
641B02

# LOOP POWERED, CURRENT OUTPUT, INDUSTRIAL VIBRATION SENSOR

Revision: B  
ECN #: 24962

	ENGLISH	SI	
<b>Performance</b>			
Measurement Range	0.0 to 2 in/s rms	0.0 to 50.8 mm/s rms	[1]
Output	4-20 mA	4-20 mA	
Frequency Range (± 10 %)	600 to 60,000 cpm	10 to 1 kHz	[2][3]
Broadband Resolution	0.01 in/s rms	0.26 mm/s rms	[4]
Non-Linearity	± 1 %	± 1 %	
<b>Environmental</b>			
Temperature Range	-40 to 185 °F	-40 to 85 °C	
<b>Electrical</b>			
Excitation Voltage	12 to 30 VDC	12 to 30 VDC	
Settling Time (within 2% of value)	<15 sec	<15 sec	
Electrical Isolation (Case)	>10 <sup>8</sup> ohm	>10 <sup>8</sup> ohm	
<b>Physical</b>			
Size (Hex x Height)	1.0 in x 2.6 in	25.4 mm x 66 mm	
Weight	4.7 oz	131 gm	
Mounting Thread	1/4-28 UNF	Not Applicable	
Mounting Torque	3 to 5 ft-lb	4 to 7 N-m	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	2-Pin MIL-C-5015	2-Pin MIL-C-5015	
Electrical Connection Position	Top	Top	
Electrical Connections (Pin A)	4-20 mA Pos (+)	4-20 mA Pos (+)	
Electrical Connections (Pin B)	4-20 mA Neg (-)	4-20 mA Neg (-)	

**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.

**EX - ATEX or ATEX and CSA Hazardous Area Approval**  
 Hazardous Area Approval EEx ia IIC T4, -40°C≤Tas≤80°C, II 1 G  
 Hazardous Area Approval EEx nL IIC T4, -40°C≤Tas≤80°C, II 3 G  
 Hazardous Area Approval DIV I, CL I, II, III, GRPS A-G, Exia, AExia, IIC T4  
 Hazardous Area Approval DIV II, CL I, GRPS A-D, ExnL, AExnA, IIC T4

**M - Metric Mount**  
 Supplied Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A40

**RV - Buffered Analog Signal Output - 100 mV/g (±20%)**  
 Electrical Connector 3-Pin MIL-C-5015  
 Electrical Connections (Pin A) 4-20 mA Pos (+)  
 Electrical Connections (Pin B) 4-20 mA Neg/Signal Output Neg  
 Electrical Connections (Pin C) Signal Output Pos

**NOTES:**

- [1] Conversion Factor 1 in/sec = 0.0254 m/sec.
- [2] Current will fluctuate at frequencies below 5 Hz.
- [3] 1 Hz = 60 cpm (cycles per minute).
- [4] Typical.
- [5] See PCB Declaration of Conformance PS039 or PS053 for details.

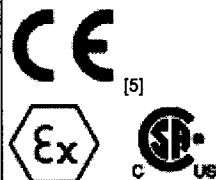
**SUPPLIED ACCESSORIES:**

Model 081A40 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: <i>JR</i>	Engineer: <i>MT</i>	Sales: <i>GRM</i>	Approved: <i>N.F.</i>	Spec Number:
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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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