

Model Number

640B01

# LOOP POWERED CURRENT OUTPUT SENSOR

Revision: E

ECN #: 25866

	<b>ENGLISH</b>	<b>SI</b>	
<b>Performance</b>			
Measurement Range	0.0 to 1 in/s pk	0.0 to 25.4 mm/s pk	[1]
Output	4-20 mA	4-20 mA	
Frequency Range(± 10 %)	180 to 60,000 cpm	3 to 1000 Hz	[2][3]
Broadband Resolution	0.005 in/s pk	0.13 mm/s pk	[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	
Load Resistance	50 (Vs-12) ohms	50 (Vs-12) ohms	
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 (-)	



[5]



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.

### EX - ATEX or ATEX and CSA Hazardous Area Approval

Hazardous Area Approval	EEx ia IIC T4, -40°C≤Tas80°C, II 1 G
Hazardous Area Approval	EEx nL IIC T4, -40°C≤Tas80°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

### RVVO - Buffered Analog Signal Output - 100 mV/in/sec (±20%)

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
Electrical Connector	3-Pin MIL-C-5015

### NOTES:

- [1] Conversion Factor 1 in/sec = 0.0254 m/sec.  
 [2] Current will fluctuate at frequencies below 5 Hz.  
 [3] 1Hz = 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>[Signature]</i>	Engineer: <i>MOZ</i>	Sales: <i>[Signature]</i>	Approved: <i>[Signature]</i>	Spec Number:
Date: <i>2/19/07</i>	Date: <i>2/16/07</i>	Date: <i>2/28/07</i>	Date: <i>2/28/07</i>	<b>25315</b>

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