

Model Number  
**CS640B91**

# LOOP POWERED, CURRENT OUTPUT, INDUSTRIAL VIBRATION SENSOR

Revision: A  
ECN #: 42133

**Performance**

	<b>ENGLISH</b>	<b>SI</b>	
Measurement Range	0.0 to 1 in/sec pk	0.0 to 25.4 mm/s pk	[1]
Output	4-20 mA	4-20 mA	
Frequency Range(± 3 dB)	180 to 60,000 cpm	3 to 1000 Hz	[2][3]
Broadband Resolution	0.005 in/sec pk	0.13 mm/s pk	[4]
Non-Linearity	± 1 %	± 1 %	

**Environmental**

Temperature Range	-40 to 176 °F	-40 to 80 °C
Hazardous Area Approval	Ex ia, AExia IIC T4	Ex ia, AExia IIC T4
Hazardous Area Approval	Ex na, AExnA IIC T4	Ex na, AExnA IIC T4
Hazardous Area Approval	Class I Div 1 Groups A, B, C, D	Class I Div 1 Groups A, B, C, D
Hazardous Area Approval	Class I Div 2 Groups A, B, C, D	Class I Div 2 Groups A, B, C, D
Hazardous Area Approval	Class II Div 1 Groups E, F, G	Class II Div 1 Groups E, F, G
Hazardous Area Approval	Class III	Class III

**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 <sup>8</sup> Ohm	>10 <sup>8</sup> Ohm

**Physical**

Size (Hex x Height)	3.85 in x 5.52 in	98 mm x 140 mm
Weight	1.2 lb	544 gm
Mounting Thread	1/4 NPT	No Metric Equivalent
Sensing Element	Ceramic	Ceramic
Sensing Geometry	Shear	Shear
Housing Material	Stainless Steel	Stainless Steel
Electrical Connector	Integral Cable	Integral Cable
Electrical Connection Position	Top	Top
Electrical Connections(Positive (+))	18 AWG Red	18 AWG Red
Electrical Connections(Negative (-))	18 AWG Black	18 AWG Black
Wire Length	36 in	91.44 cm



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.

**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 for details.

**SUPPLIED ACCESSORIES:**

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

Entered: AP	Engineer: gs	Sales: BRS	Approved: BAM	Spec Number:
Date: 11/27/2013	Date: 11/27/2013	Date: 11/27/2013	Date: 11/27/2013	<b>56155</b>

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