

Model Number  
**VO625B01**

# INDUSTRIAL ICP® VELOCITY SENSOR

Revision: NR  
ECN #: 41765

## Performance

	ENGLISH	SI	
Sensitivity(± 10 %)	100 mV/in/sec	3937 mV/m/sec	[2]
Measurement Range	± 50 in/sec	± 1.27 m/s²	
Frequency Range(± 10 %)	180 to 150,000 cpm	2.5 to 2500 Hz	[3][4]
Frequency Range(± 3 dB)	90 to 360,000 cpm	1.5 to 6000 Hz	
Resonant Frequency	900 kcpm	15 kHz	[1]
Broadband Resolution(1 to 10,000 Hz)	400 µin/sec	10.6 µm/sec	[1]
Non-Linearity	± 1 %	± 1 %	[5]
Transverse Sensitivity	≤ 8 %	≤ 8 %	

## Environmental

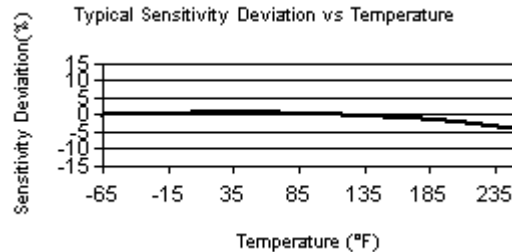
Overload Limit(Shock)	5000 g pk	49,050 m/s² pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[1]
Enclosure Rating	IP68	IP68	

## Electrical

Settling Time(within 1% of bias)	≤ 30 sec	≤ 30 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 10 mA	2 to 10 mA	
Output Impedance	<100 Ohm	<100 Ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise(10 Hz)	25 µin/sec/√Hz	0.64 µm/sec/√Hz	[1]
Spectral Noise(100 Hz)	3.0 µin/sec/√Hz	0.08 µm/sec/√Hz	[1]
Spectral Noise(1 kHz)	2.0 µin/sec/√Hz	0.05 µm/sec/√Hz	[1]
Electrical Protection	RFI/ESD	RFI/ESD	
Electrical Isolation(Case)	>10 <sup>8</sup> Ohm	>10 <sup>8</sup> Ohm	

## Physical

Size (Diameter x Height)	1.36 in x 1.13 in	34.5 mm x 28.7 mm	
Weight	5.6 oz	159 gm	
Mounting	Through Hole	Through Hole	
Mounting Thread	1/4-28 Male	No Metric Equivalent	[6]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 Nm	
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	Side	Side	



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 M081A73 Mounting Bolt M6 x 1.00 (1) replaces Model 081A73

## NOTES:

- [1] Typical.
- [2] Conversion Factor 1 in/sec = 0.0254 m/sec.
- [3] 1Hz = 60 cpm (cycles per minute).
- [4] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [5] Zero-based, least-squares, straight line method.
- [6] 1/4-28 has no equivalent in S.I. units.
- [7] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

Model 080B45 Thermal Boot  
Model 081A73 Captive mounting bolt 1/4-28 x 1.34"  
Model Calibration Certificate

Entered: AP	Engineer: JDK	Sales: EGY	Approved: BAM	Spec Number:
Date: 9/5/2013	Date: 9/5/2013	Date: 9/5/2013	Date: 9/5/2013	<b>55708</b>

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