

Model Number
640B09

4-20 MA OUTPUT VELOCITY SENSOR

Revision: A
ECN #: 49753

Performance	ENGLISH	SI	
Measurement Range	0.0 to 2 in/sec pk	0.0 to 50.8 mm/s pk	[1]
Output	4-20 mA	4-20 mA	
Frequency Range(± 3 dB)	180 to 60 kcpm	3 to 1 kHz	[2][3]
Broadband Resolution	0.01 in/sec pk	0.26 mm/s pk	[4]
Non-Linearity	± 1 %	± 1 %	
Environmental			
Temperature Range	-40 to 185 °F	-40 to 85 °C	
Enclosure Rating	IP68	IP68	
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 ⁸ Ohm	> 10 ⁸ Ohm	
Physical			
Size - Hex	1.0 in	25.4 mm	
Size - Height	2.6 in	66 mm	
Weight	4.7 oz	131 gm	
Mounting Thread	1/4-28 UNF	No Metric Equivalent	
Mounting Torque	3 to 5 ft-lb	4 to 7 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	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 - Hazardous Area Approval- contact factory for

specific approvals		
Hazardous Area Approval	DIV II, CL I, GRPS A-D, ExnL, AExnA, IIC T4	DIV II, CL I, GRPS A-D, ExnL, AExnA, IIC T4
Hazardous Area Approval	EEx ia IIC T4, -40°C ≤ Ta ≤ 80°C, II 1 G	EEx ia IIC T4, -40°C ≤ Ta ≤ 80°C, II 1 G
Hazardous Area Approval	EEx nL IIC T4, -40°C ≤ Ta ≤ 80°C, II 3 G	EEx nL IIC T4, -40°C ≤ Ta ≤ 80°C, II 3 G
Hazardous Area Approval	DIV I, CL I, II, III, GRPS A-G, Exia, AExia, IIC T4	DIV I, CL I, II, III, GRPS A-G, Exia, AExia, IIC T4

M - Metric Mount

Supplied Accessory: Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1)

RV - Buffered Analog Signal Output - 100 mV/g (±20%)

Electrical Connector		
Electrical Connections	3-Pin MIL-C-5015	3-Pin MIL-C-5015
Electrical Connections	4-20 mA Pos (+)	4-20 mA Pos (+)
Electrical Connections	4-20 mA Neg/Signal Output	4-20 mA Neg/Signal Output
Electrical Connections	Neg Signal Output Pos	Neg Signal Output Pos

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 M081A61 Mounting Stud 1/4-28 to M6 X 1 (1)
- 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: LK	Engineer: NJF	Sales: MC	Approved: NJF	Spec Number:
Date: 07/24/2019	Date: 07/24/2019	Date: 07/24/2019	Date: 07/24/2019	37369

IMI SENSORS
A PCB PIEZOTRONICS DIV.
3425 Walden Avenue, Depew, NY 14043

Phone: 800-959-4464
Fax: 716-684-3823
E-Mail: imi@pcb.com



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.
ICP® is a registered trademark of PCB Piezotronics, Inc.