

Model Number
608A11

INDUSTRIAL ICP® ACCELEROMETER

Revision: H
ECN #: 28546

Performance	ENGLISH	SI	
Sensitivity(± 15 %)	100 mV/g	10.2 mV/(m/s ²)	[2]
Measurement Range	± 50 g	± 490 m/s ²	
Frequency Range(± 3 dB)	30 to 600,000 cpm	0.5 to 10,000 Hz	
Resonant Frequency	1320 kcpm	22 kHz	[1]
Broadband Resolution(1 to 10,000 Hz)	350 µg	3434 µm/s ²	[1]
Non-Linearity	± 1 %	± 1 %	[3]
Transverse Sensitivity	≤ 7 %	≤ 7 %	
Environmental			
Overload Limit(Shock)	5000 g pk	49,050 m/s ² 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)	≤ 2.0 sec	≤ 2.0 sec	
Discharge Time Constant	≥ 0.3 sec	≥ 0.3 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	<150 ohm	<150 ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise(10 Hz)	8 µg/√Hz	78.5 (µm/s ²)/√Hz	[1]
Spectral Noise(100 Hz)	5 µg/√Hz	49.1 (µm/s ²)/√Hz	[1]
Spectral Noise(1 kHz)	4 µg/√Hz	39.2 (µm/s ²)/√Hz	[1]
Electrical Isolation(Case)	>10 ⁸ ohm	>10 ⁸ ohm	
Physical			
Size (Hex x Height)	9/16 in x 2.5 in	14 mm x 64 mm	
Weight(with cable)	3.5 oz	99.3 gm	
Mounting	Stud	Stud	
Mounting Thread	1/4-28 Female	1/4-28 Female	[4]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 N-m	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Molded	Molded	
Electrical Connector	Molded Integral Cable	Molded Integral Cable	
Electrical Connection Position	Top	Top	
Cable Length	10 ft	3 m	
Cable Type	Polyurethane	Polyurethane	[5]

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 nL IIC T4, -40°C≤Tas 121°C, II 3 G	EEx nL IIC T4, -40°C≤Tas 121°C, II 3 G
Hazardous Area Approval	EEx nL IIC T4, -40°C≤Tas 121°C, II 1 G	EEx nL IIC T4, -40°C≤Tas 121°C, II 1 G
Hazardous Area Approval	CI I, Div I, Groups A, B, C, D; CI II, Div I, Groups E, F, G; CI III, Div I	CI I, Div I, Groups A, B, C, D; CI II, Div I, Groups E, F, G; CI III, Div I
Hazardous Area Approval	CI I, Div 2, Groups A, B, C, D; ExnL IIC T4, AExnA IIC T4	CI I, Div 2, Groups A, B, C, D; ExnL IIC T4, AExnA IIC T4
Hazardous Area Approval	Exia IIC T4, AExia IIC, T4	Exia IIC T4, AExia IIC, T4

LB - Low Bias Voltage		
Output Bias Voltage	4.8 to 6.5 VDC	4.8 to 6.5 VDC
Excitation Voltage	12 to 28 VDC	12 to 28 VDC
Measurement Range	± 10 g	± 98 m/s ²

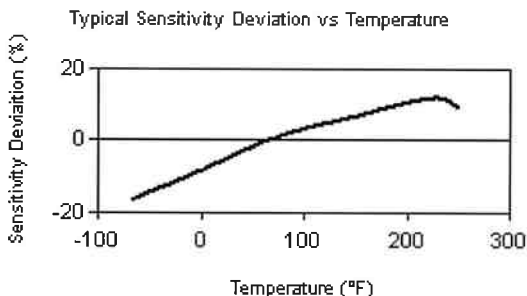
M - Metric Mount
Supplied Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A40

TO - Temperature Output		
Temperature Output Range	+36 to +250 °F	+2 to +121 °C
Temperature Scale Factor	5.56 mV/°F + 32	+10 mV/°C
Electrical Connector	Molded Integral Cable	Molded Integral Cable
Electrical Connections(Red)	Acceleration Output	Acceleration Output
Electrical Connections(Black)	Ground	Ground
Electrical Connections(White)	Temperature Output	Temperature Output

NOTES:
[1] Typical.
[2] Conversion Factor 1g = 9.81 m/s².
[3] Zero-based, least-squares, straight line method.
[4] 1/4-28 has no equivalent in S.I. units.
[5] Twisted shielded pair.
[6] See PCB Declaration of Conformance PS023 or PS060 for details.

SUPPLIED ACCESSORIES:
Model 081A40 Mounting Stud (1)
Model ICS-2 NIST-traceable single-axis single-point amplitude response calibration at 6000 cpm (100 Hz) (1)

Entered: <i>LU</i>	Engineer: <i>LAB</i>	Sales: <i>EGY</i>	Approved: <i>EB</i>	Spec Number:
Date: <i>4-7-08</i>	Date: <i>4-1-08</i>	Date: <i>4-3-08</i>	Date: <i>4-4-08</i>	13273



[6]



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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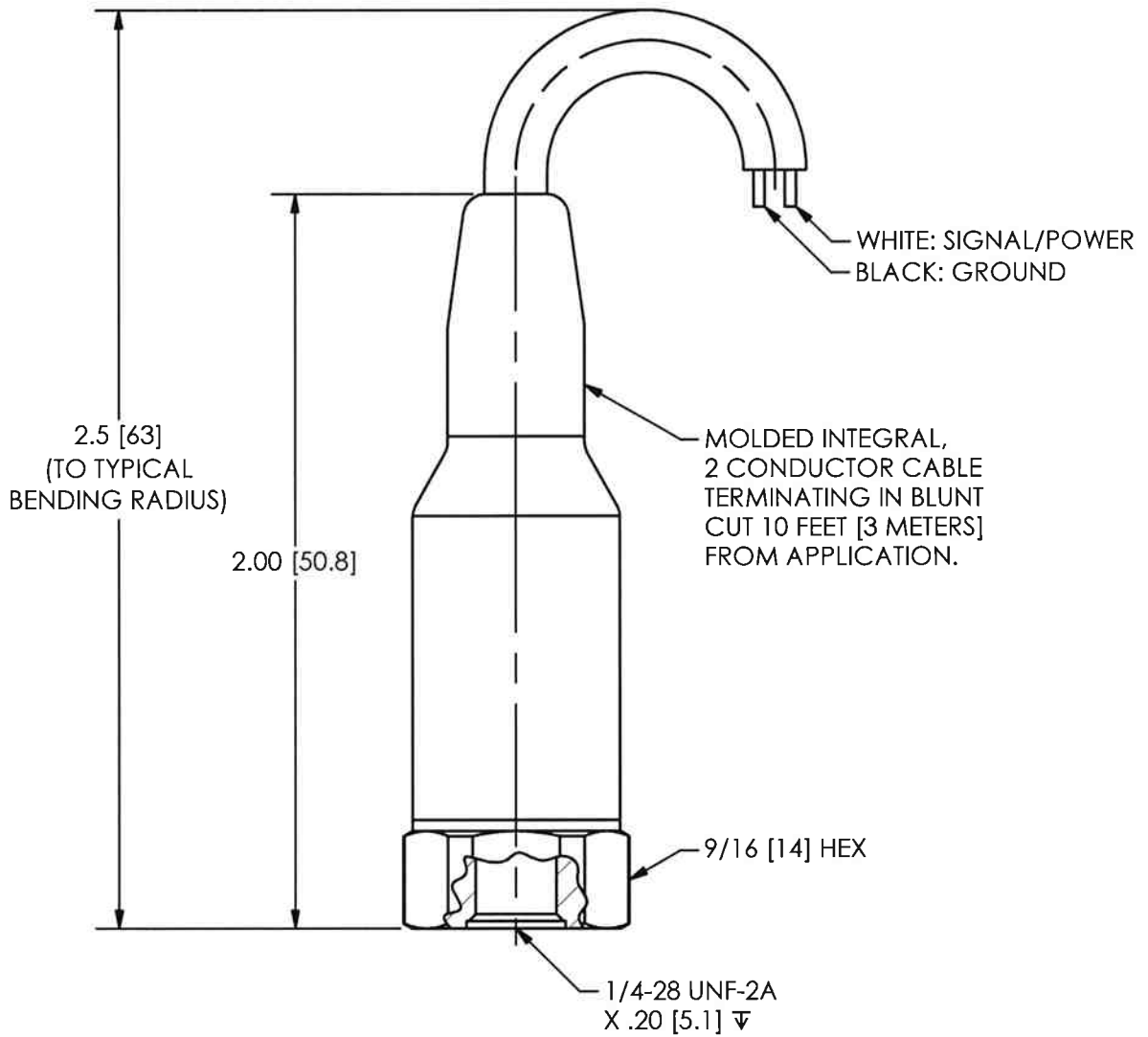
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12013

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REVISIONS

REV	DESCRIPTION	ECO
A	UPDATE FOR UNIFORMITY	13113
B	UPDATE DRAWING	31162



UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

DIMENSIONS IN INCHES

DECIMALS XX ±.03
XXX ±.010

ANGLES ± 2 DEGREES

DIMENSIONS IN MILLIMETERS
[IN BRACKETS]

DECIMALS X ± 0.8
XX ± 0.25

ANGLES ± 2 DEGREES

FILLETS AND RADII
.003 - .005

FILLETS AND RADII
0.07 - 0.13

DRAWN

CHECKED

ENGINEER

MDF 8/13/09 ECB 8/14/09 MJN 8/13/09

TITLE

OUTLINE DRAWING
MODEL 608A1X, M
ACCELEROMETER

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CODE IDENT. NO.
52681

DWG. NO.

12013

SCALE: 2 X

SHEET 1 OF 1