Model	Number			
604R91				

INDUSTRIAL TRIAXIAL ICP® ACCELEROMETER

Revision: B ECN #: 53691

Performance	ENGLISH	SI	
Sensitivity(± 20 %)	100 mV/g	10.2 mV/(m/s ²)	[1]
Measurement Range	± 50 g	± 490 m/s²	
Frequency Range(± 3 dB)	30 to 300,000 cpm	0.5 to 5,000 Hz	[2]
Resonant Frequency	600 kcpm	10 kHz	[3]
Broadband Resolution(1 to 10,000 Hz)	350 µg	3,434 µm/sec ²	[3]
Non-Linearity	± 1 %	± 1 %	[4]
Transverse Sensitivity	≤ 5 %	≤ 5 %	
Environmental			
Overload Limit(Shock)	5,000 g pk	49,050 m/s² pk	
Temperature Range	-65 to +250 °F	-54 to +121 ℃	
Temperature Response	See Graph	See Graph	[3]
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/sec ²)/√Hz	[3]
Spectral Noise(100 Hz)	5 μg/√Hz	49.1 (µm/sec ²)/√Hz	[3]
Spectral Noise(1 kHz)	4 μg/√Hz	39.2 (µm/sec ²)/√Hz	[3]
Electrical Isolation(Case)	≥ 10 ⁸ Ohm	≥ 10 ⁸ Ohm	
Physical			
Size (Diameter x Height)	1.38 in x 1.00 in	35.1 mm x 25.4 mm	
Weight	4.2 oz	119 gm	
Mounting	Through Hole	Through Hole	
Mounting Thread	1/4-28 Male	1/4-28 Male	[5]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 Nm	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	316L Stainless Steel	316L Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	4-Pin, M12	4-Pin, M12	
Electrical Connection Position	Side	Side	

Typical Sensitivity Deviation vs Temperature 20 10 0 -10 -20

Temperature (°F)



CE

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.

Sensitivity Deviaition(%)

100

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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 - Hazardous Area Approval- contact factory for specific approvals

specific approvais

M - Metric Mount Supplied Accessory: Model M081A68 Captive mounting bolt M6 x 1 (1)

 TO - Temperature Output
 +36 to +250 °F
 +2 to +121 °C

 Temperature Output Range
 +36 to +250 °F
 +2 to +121 °C

 Temperature Scale Factor
 5.56 mV/°F + 32
 +10 mV/°C

 Electrical Connector
 5-Pin, M12
 5-Pin, M12

 Weight
 4.3 oz
 122 gm

NOTES:

[1] Conversion Factor $1g = 9.81 \text{ m/s}^2$.

[2] The high frequency tolerance is accurate within $\pm 10\%$ of the specified frequency.

[3]Typical.

[4]Zero-based, least-squares, straight line method.

[5]1/4-28 has no equivalent in S.I. units.

[6] See PCB Declaration of Conformance PS023 or PS098 for details.

[7]See Model's "Instructions For Use" (IFU) for North American Conformity and Certification Statements.

SUPPLIED ACCESSORIES:

Model 081A68 Captive mounting bolt 1/4-28 x .90" (1)

Entered: ND	Engineer: GD	Sales: JL	Approved: BAM	Spec Number:
Date: 04/13/2023	Date: 04/13/2023	Date: 04/13/2023	Date: 04/13/2023	67475



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