

Q-Flex[®] QA-750 Accelerometer

Cost-effective inertial-grade sensor

For Q-Flex technology in an economical package, Honeywell produces the QA750 for a broad array of moderate performance applications.

As with the entire Q-Flex family of accelerometers, the QA750 features patented Q-Flex[®] etched-quartz-flexure seismic system. An amorphous quartz proof-mass structure provides excellent bias, scale factor, and axis alignment stability.

The integral electronics develops an acceleration proportional output current providing both static and dynamic acceleration measurements. By use of a customer supplied output load resistor, appropriately scaled for the acceleration range of the application, the output current can be converted into a voltage.

As an option, the QA750 can be provided with the temperature-compensating algorithm where bias, scale factor, and axis misalignment performance are dramatically improved.

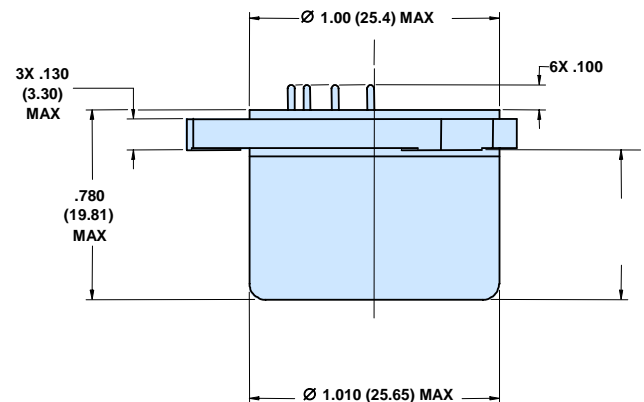
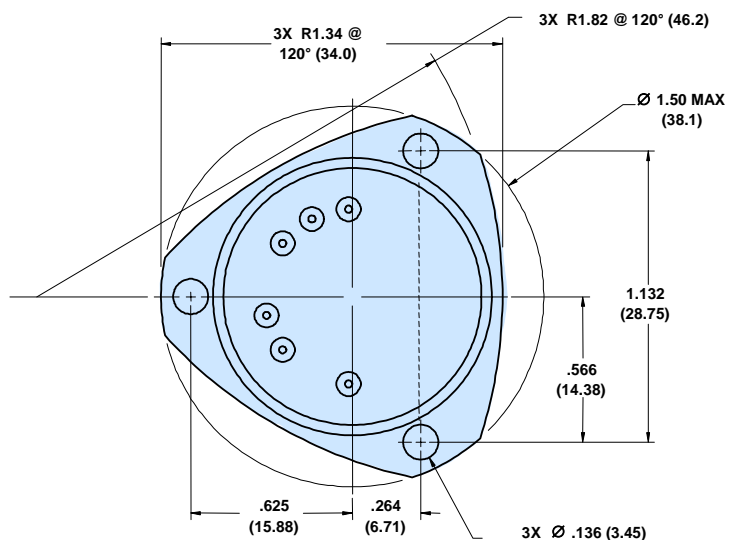
Robust design and quality assurance provides superior reliability.

Features

- High value
- Environmentally rugged
- Analog output
- Compact design
- Field-adjustable range
- Built-in test
- Optional thermal compensation



Configuration Drawings



Performance Characteristics

Additional product specifications, outline drawings and block diagrams, and test data are available on request.

Performance	
Input Range [g]	±30
Bias [mg]	<8
One-year Composite Repeatability [µg]	<1000 (w/o model data)
Temperature Sensitivity [µg/°C]	<60
Scale Factor [mA/g]	1.20 to 1.46
One-year Composite Repeatability [ppm]	<1000 (w/o model data)
Temperature Sensitivity [ppm/°C]	<190
Axis Misalignment [µrad]	<7000
One-year Composite Repeatability [µrad]	<300
Vibration Rectification [µg/g ² rms]	<60 (50-500 Hz) <200 (500-2000 Hz)
Intrinsic Noise [µg-rms]	<7 (0-10 Hz) <70 (10-500 Hz) <1500 (500-10,000 Hz)
Environment	
Operating Temperature Range [°C]	-55 to +95
Shock [g]	200
Vibration Peak Sine [g]	20 @ 30-500 Hz
Resolution/Threshold [µg]	<1
Bandwidth [Hz]	>300
Thermal Modeling	
	-010 NO -020 YES
Electrical	
Quiescent Current per Supply [mA]	<16
Quiescent Power [mW] @ ±15 VDC	<480
Electrical Interface	Temp Sensor Voltage Self Test Power / Signal Ground
Input Voltage	±13 to ±18
Physical	
Weight [grams]	52.5 ±4
Diameter below mounting surface [inches]	Ø1.07 ±0.01
Height - bottom to mounting surface [inches]	.600 Max
Case Material	300 Series Stainless Steel

ISO-9001 Certification Since 1995

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Accelerometers exported from the United States must be done in accordance with the Export Administration Regulations (EAR) and/or the International Traffic in Arms Regulations (ITAR) as applicable.

Find out more:

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