

Q-FLEX QA-750 ACCELEROMETER

I Cost-effective inertial-grade sensor

For Q-Flex performance and reliability in an economical package, Honeywell produces the QA-750 for a broad array of high-performance industrial applications.

The QA-750 is a popular choice for marine applications, used in both surface and underwater applications, building and bridge tilt, sway monitoring, railway monitoring and industrial controls.

As with the entire Q-Flex family of accelerometers, the QA-750 features a 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 QA-750 can be provided with the temperature-compensating algorithm where bias, scale factor and axis misalignment performance are dramatically improved.



Q-Flex QA-750

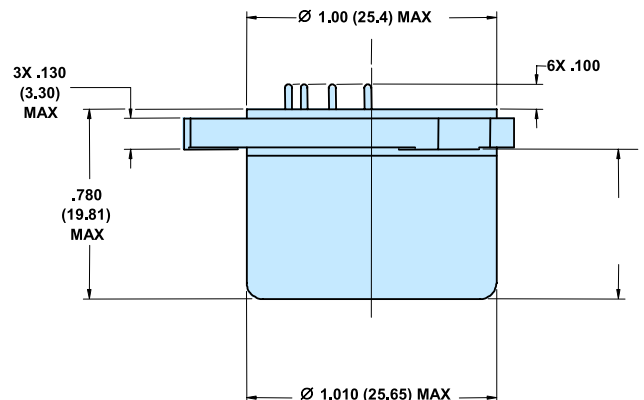
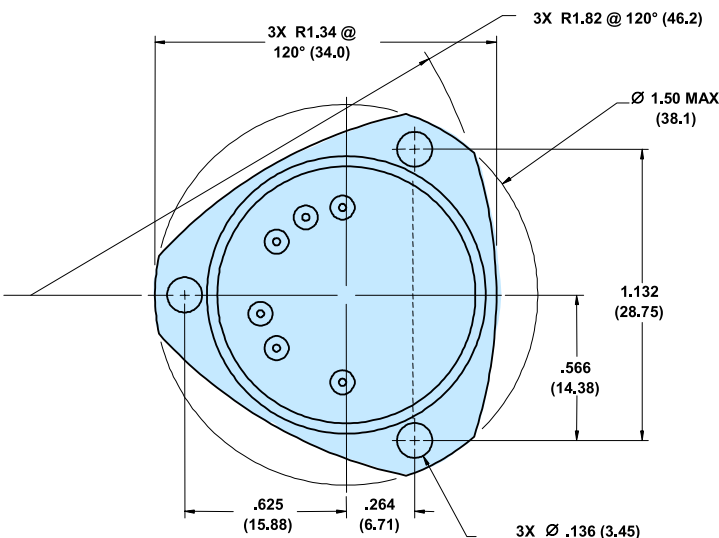


**MORE THAN
3M QUARTZ
ACCELEROMETERS
SHIPPED OVER THE
PAST TWO DECADES**

FEATURES

- Robust design and quality assurance provide superior reliability
- High value: precision at an affordable price
- Environmentally rugged
- Analog output
- Compact design
- Field-adjustable range
- Built-in test
- Optional thermal compensation

CONFIGURATION DRAWINGS



Honeywell

PERFORMANCE CHARACTERISTICS

ISO-9001 CERTIFICATION SINCE 1995

DISCLAIMER: Specifications are subject to change without notice. Honeywell reserves the right to make changes to any product or technology herein to improve reliability, function or design. Honeywell does not assume any liability arising out of the application or use of the product.

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.

Performance

| | |
|----------------------------------|---|
| Input Range | ±30 g |
| Bias | <8 mg |
| One-year Composite Repeatability | <1000 µg (w/o model data) |
| Temperature Sensitivity | <60 µg/°C |
| Scale Factor | 1.20 to 1.46 mA/g |
| One-year Composite Repeatability | <1000 ppm (w/o model data) |
| Temperature Sensitivity | <190 ppm/°C |
| Axis Misalignment | <7000 µrad |
| One-year Composite Repeatability | <300 µrad |
| Vibration Rectification | <60 µg/g ² rms (50-500 Hz) <200 µg/g ² rms (50-500 Hz) |
| Intrinsic Noise | <7 µg-rms (0-10 Hz) <70 µg-rms (10-500 Hz) |

Environment

| | |
|-----------------------------|---------------------|
| Operating Temperature Range | -55 to +95 °C |
| Shock | 200 g |
| Vibration Peak Sine | 20 g @ 30-500 Hz |
| Resolution/Threshold | <1 µg |
| Bandwidth | >300 Hz |
| Thermal Modeling | -010 No -020 Yes |

Electrical

| | |
|------------------------------|---|
| Quiescent Current per Supply | <16 mA |
| Quiescent Power | <480 mW @ ±15 VDC |
| Electrical Interface | Temp Sensor Voltage Self Test Power / Signal Ground |
| Input Voltage | ±13 to ±18 |

Physical

| | |
|-----------------------------------|----------------------------|
| Weight | 52.5 ±4 grams |
| Diameter below mounting surface | Ø1.07 ±0.01 in. |
| Height bottom to mounting surface | .600 in. Max |
| Case Material | 300 Series Stainless Steel |

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

For More Information

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N61-2512-000-000 | 08/2020
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THE
FUTURE
IS
WHAT
WE
MAKE IT

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