



AEROSPACE

Q-Flex® QA650 Accelerometer

Economical
sensor
package



Q-FLEX®
ACCELEROMETER
P/N 979-0650-001
S/N 2
DATE CODE 9826
CAGE CODE DYFPO
Honeywell

QA650 Accelerometer

For Q-Flex technology in an economical package, Honeywell produces the QA650 for industrial grade applications including: automotive test instrumentation, braking system deceleration, bridge and building sway and tilt monitoring, industrial and robotic control, land vehicle navigation, subway and high-speed train ride comfort control, and offshore drilling platform motion monitoring.

As with the entire Q-Flex family of accelerometers, the QA650 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 measurement. 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.

Robust design and quality assurance provides superior reliability.

Features

- Tactical navigation grade performance
- High value
- Environmentally rugged
- Analog output
- Compact design
- Built-in-test
- Field adjustable range

Applications

- Automotive test instrumentation
- Braking system deceleration
- Bridge and building sway and tilt monitoring
- Industrial and robotic control
- Land vehicle navigation
- Subway and train ride comfort control
- Offshore drilling platform motion monitoring

Specifications

Performance

- Input range ± 30 g
- Bias < 15 mg
 - One year repeatability < 2500 μ g
 - Temperature sensitivity < 100 μ g/ $^{\circ}$ C
- Scale factor 1.33 mA/g $\pm 10\%$
 - One year repeatability < 2500 ppm
 - Temperature sensitivity < 200 ppm/ $^{\circ}$ C
- Axis misalignment < 15 mrad
- Resolution/Threshold < 10 μ g
- Bandwidth > 300 Hz

Environmental

- Operating temperature range -55 to 96° C
- Shock 100 g
- Vibration 25 g peak sine, 5-500 Hz

Electrical

- Input voltage ± 13 to ± 18 VDC
- Quiescent current < 16 mA per supply
- Quiescent power < 480 mW @ ± 15 VDC

Physical

- Weight 51 grams
- Size 1.0 in. dia. X 0.74 in. high
- Case material Stainless steel

3 and 4 fastener mounting rings are available. Additional product specifications, outline drawings and block diagrams, and test data are available on request.

ISO-9001 Certification Since 1995

For more information, please call **888-206-1667** or FAX **425-883-2104**. Visit our website at www.inertialsensor.com
Specifications are subject to change without notice.

Honeywell