



AEROSPACE

## Q-Flex® QA3000 Accelerometer

Highest inertial  
navigation-grade  
performance



## QA3000 Accelerometer

For the highest inertial navigation-grade performance available in today's market, Honeywell produces the Q-Flex® QA3000. Built on the same production line as the industry-standard QA2000 Accelerometer, the QA3000 Accelerometer has the same inherent quality, reliability, and long-term performance characteristics of the QA2000 Accelerometer. Primary applications include spacecraft navigation and control systems.

As with the entire Q-Flex family of accelerometers, the QA3000 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.

The QA3000 also includes a current-output, internal temperature sensor. By applying temperature-compensating algorithms, bias, scale factor, and axis misalignment performance are dramatically improved.

### Features

- Highest performance accelerometer available
- Excellent turn-on repeatability and stability performance
- Environmentally rugged
- Analog output
- Field-adjustable range
- Three fastener precision mounting flange
- Internal temperature sensor for thermal compensation
- Dual built-in test

For more information, please call **888-206-1667** or FAX **425-883-2104**.

Visit our website at [www.inertialsensor.com](http://www.inertialsensor.com)

*Specifications are subject to change without notice*

## Specifications

### Performance

- Input range ±60g
- Bias <4 mg
- Scale factor 1.33 mA/g ±10%
- Resolution / Threshold <1 µg
- Bandwidth >300 Hz

### Environment

- Vibration 15 g peak sine, 20-2000 Hz

### Electrical

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

### Physical

- Weight 71 grams
- Size 1.0 in. dia. x 0.96 in. high
- Case Material Stainless Steel

## Performance by Model

If other performance values are required, please contact Honeywell for special selection information.

<i>(values listed are maximum)</i>	<b>QA3000-010</b>	<b>QA3000-020</b>	<b>QA3000-030</b>
BIAS One-year repeatability	125 µg	80 µg	40 µg
SCALE FACTOR One-year repeatability	250 ppm	160 ppm	80 ppm
AXIS MISALIGNMENT One-year repeatability	1500 µrad 100 µrad	1000 µrad 80 µrad	1000 µrad 70 µrad
VIBRATION RECTIFICATION (50-500 Hz)	20 µg/(grms) <sup>2</sup>	15 µg/(grms) <sup>2</sup>	10 µg/(grms) <sup>2</sup>
TEMPERATURE	-55 to +95°C	-55 to +95°C	-28 to +78°C
SHOCK	150 g	150 g	100 g

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

**ISO-9001 Certification Since 1995**

# Honeywell

**Inertial Sensor Products Redmond**  
Honeywell  
15001 N.E. 36th Street, P.O. Box 97001  
Redmond, Washington 98073-9701

C61-1563-122-000  
EXP029 January 2001  
Printed in U.S.A. on recycled paper ♻️  
© 2001 Honeywell International Inc.