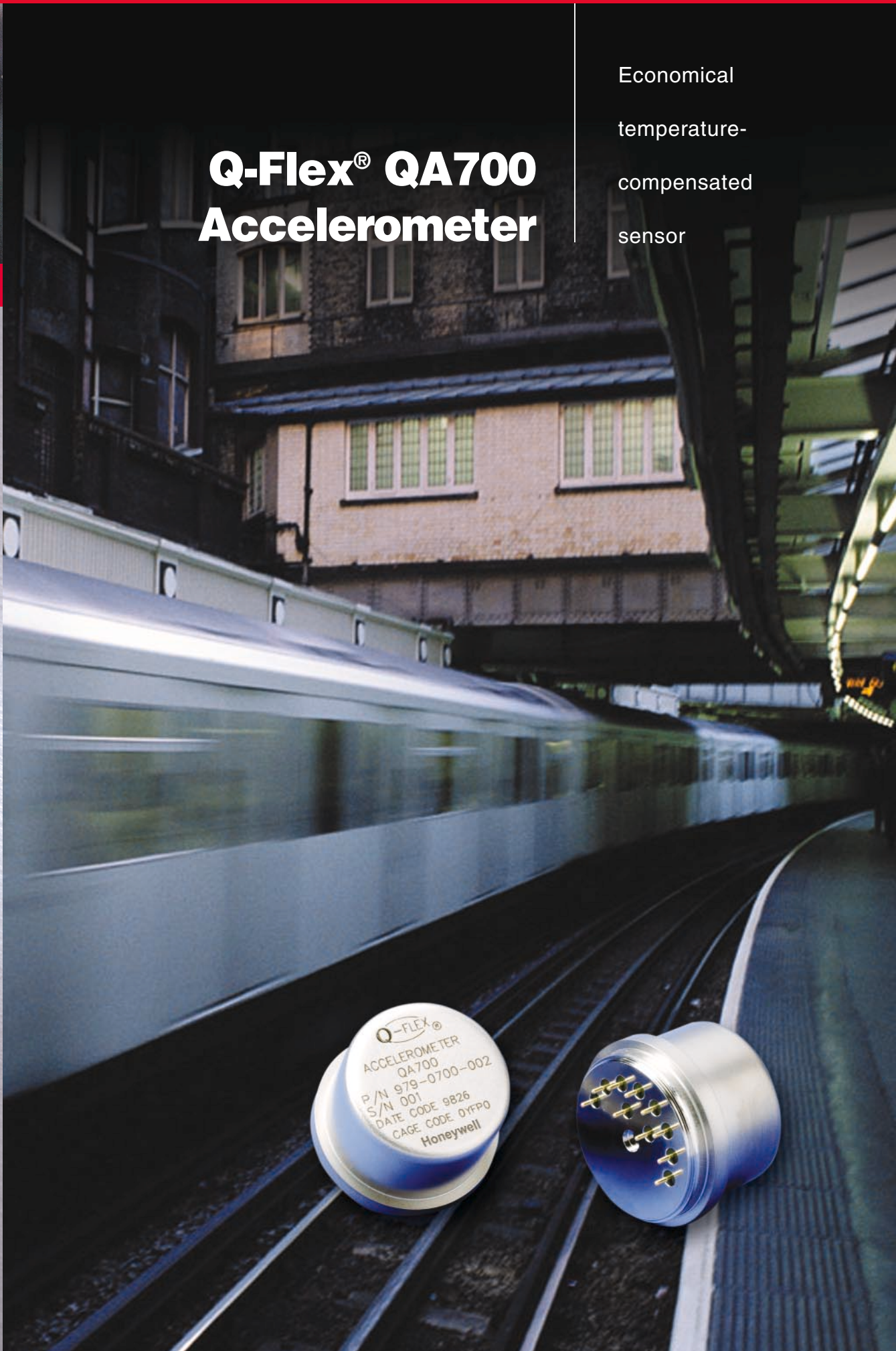


AEROSPACE

# Q-Flex® QA700 Accelerometer

Economical  
temperature-  
compensated  
sensor



## QA700 Accelerometer

For Q-Flex technology in an economical temperature-compensated package, Honeywell produces the QA700 for a broad array of moderate performance applications, including: flight and flight simulator control systems, radar platform leveling, rocket booster control systems, tactical missile control systems, and seismic sensing.

As with the entire Q-Flex family of accelerometers, the QA700 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.

As an option, the QA700 can be provided with a temperature-compensating algorithm where bias, scale factor, and axis misalignment performance are dramatically improved.

Robust design and quality assurance provides superior reliability.

### Features

- Tactical navigation grade performance
- High value
- Environmentally rugged
- Analog output
- Compact design
- Field-adjustable range
- Dual built-in test
- Optional thermal compensation

### Applications

- Flight and flight simulator control systems
- Radar platform leveling
- Rocket booster control systems
- Tactical missile control systems
- Seismic sensing

## Specifications

### Performance

- Input range  $\pm 30$  g
- Bias  $< 8$  mg
  - One year repeatability  $< 1200$   $\mu$ g
  - Temperature sensitivity  $< 70$   $\mu$ g/ $^{\circ}$ C
- Scale factor  $1.33$  mA/g  $\pm 10\%$ 
  - One year repeatability  $< 1200$  ppm
  - Temperature sensitivity  $< 200$  ppm/ $^{\circ}$ C
- Axis misalignment  $< 2$  mrad
- Resolution/Threshold  $< 1$   $\mu$ g
- Bandwidth  $> 300$  Hz

### Environmental

- Operating temperature range  $-55$  to  $96^{\circ}$ C
- Shock  $250$  g
- Vibration  $25$ g peak sine, 20-2000Hz

### Electrical

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

### Physical

- Weight  $46$  grams
- Size  $1.0$  in. dia. X  $0.82$  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](http://www.inertialsensor.com)  
*Specifications are subject to change without notice.*

# Honeywell