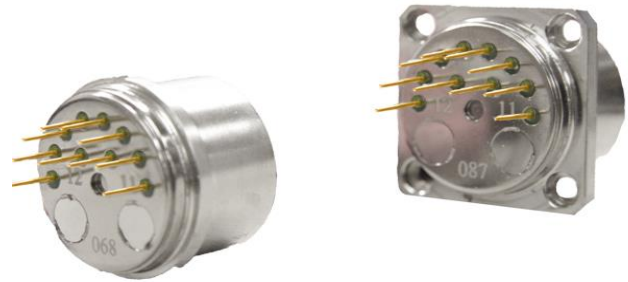


QFA-180 Series High Temperature Quartz Flexure Accelerometer

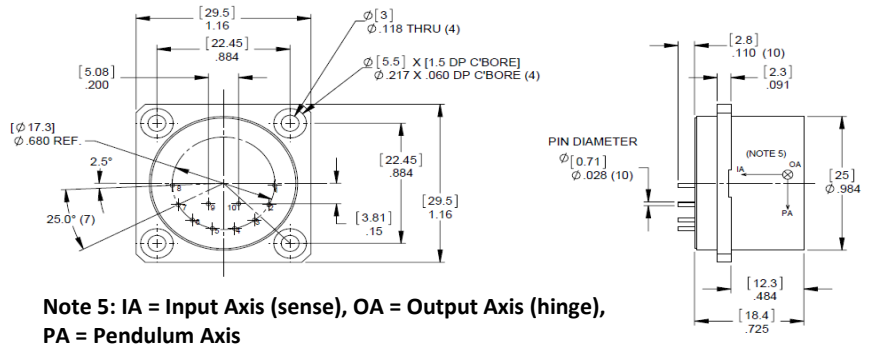


Making Sense out of Motion...

The Jewell Instruments QFA-180 Series Accelerometers are state of the art quartz flexure technology that provides high accuracy, repeatability and stability even in the harshest of environments.

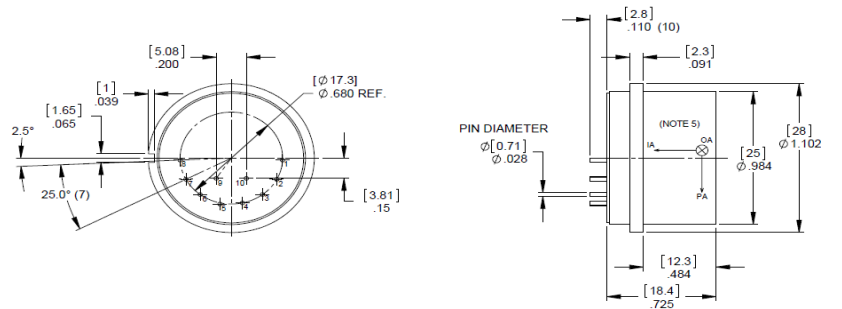


Square Flange - Outline Drawing



Note 5: IA = Input Axis (sense), OA = Output Axis (hinge), PA = Pendulum Axis

Circle Flange - Outline Drawing



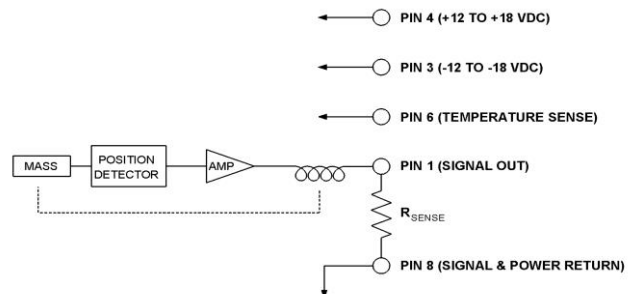
Features & Benefits

- High Temperature
- Excellent Repeatability
- High Accuracy
- Environmentally Rugged
- High Stability
- Square or Round Mounting Flanges
- Small Compact Design
- Built-in Self Test System

Applications

- Well borehole logging (Wireline)
- Measure While Drilling (MWD)
- Oil Drilling
- Orientation Systems for Drilling Applications
- Borehole Mapping

Pin Connections



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QFA-180 Series High Temperature Quartz Flexure Accelerometer



Making Sense out of Motion...

Performance Specifications

Performance

Acceleration Range, g Max. (Note 1)	±30
Scale Factor, mA/g (Note 2)	1.1 to 1.4
Bias, milli-g, Max. (@ 25° C)	40
Axis Alignment, mRad, Max. (@ 25° C)	1.5
Threshold and Resolution, µg, Max.	10
Bandwidth, Hz, Min.	300
Scale Factor Temp. Sens, PPM/°C, Max.:	
+55°C to +180°C	±200
+100°C to +180°C	±170
Bias Temp. Sens, µg/°C, Max.	±150
Scale Factor Stability (1 month composite)	less than 250 ppm
Bias Stability (1 month composite)	less than 250 µg
Noise, mgrms, Max. (0Hz to 10kHz) (Max.)	3
Weight (grams)	55

Electrical

Input Voltage, Vdc	±12 to ±18
Input Current (quiescent), mA (Max.)	12
Output Impedance, ohms	External Load Resistor Dependent

Environmental

Operational Temp Range, °C	-55°C to +180°C
Vibration, (Sine)	25 Hz to 500 Hz, 25g
Vibration, (Random) Rectification, µg/g ² rms	50 Hz to 500 Hz, 100 µg/g ² rms
Shock, g (0.5 msec, 1/2 sine)	1000

Note 1: Specifications apply and are characterized up to ±1g range. The accelerometer is capable of supplying acceleration information up to ±30g but at reduced accuracy.

Note 2: Voltage output via customer supplied load resistor.

Custom Capabilities

Scale factor shown in mA/g as a standard. If you require scale factor in volts/g, please specify voltage range when ordering.

How to Order

Model #	Part #
QFA-180-30G-SQ	848198-001
QFA-180-30G-RD	848199-001

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.

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