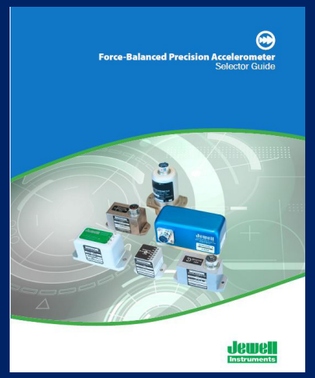
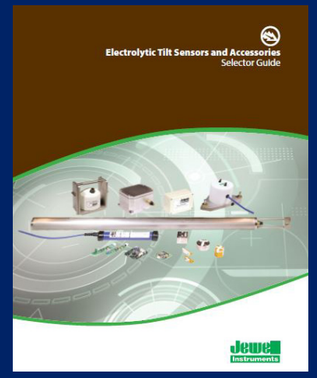
Other Product Groups Available:



Force-Balanced Precision Accelerometer Selector Guide

Force-Balanced Precision Inclinometer Selector Guide



Electrolytic Tilt Sensor and Accessories Selector Guide

MEMS Inclinometer Selector Guide

MEMS Accelerometer Selector Guide

Precision Quartz Flexure Accelerometer
Selector Guide

Distributed By:

Jewell Instruments

Making Sense Out of Motion...

ISO9001 CERTIFIED

www.jewellinstruments.com

Jewell Instruments

	QFA - 125	QFA - 150	QFA - 180	QFM - 180
				
Features & Benefits	• Mid-Temperature Range • Excellent Repeatability • Environmentally Rugged • Choice of Square or Round Mounting Flanges • Built In Self-Test System	• Mid-Temperature Range • Excellent Repeatability • Environmentally Rugged • Choice of Square or Round Mounting Flanges • Built In Self-Test System	• High Temperature Range • Excellent Repeatability • Environmentally Rugged • Choice of Square or Round Mounting Flanges • Built In Self-Test System	• High Temperature Range • Miniature Compact Design • Environmentally Rugged • Square Mounting Flanges • Built In Self-Test System
Applications	• Rail Maintenance Track Geometry • Wind Tunnel Testing • Navigation Grade Performance • Survey Applications	• Borehole Mapping • Wind Tunnel Testing • Marine Instrumentation • 3D Modeling Equipment for Large Scale Geometries	• Well Borehole Logging • Measure While Drilling • Structural Monitoring • Survey Applications • Orientation Systems for Drilling Applications	• Borehole Mapping • Measure While Drilling • Structural Monitoring • Oil Drilling • Survey Applications • Robotics

Performance Specs

Acceleration Range, g Max. (Note 1)	±30	±30	±30	±20
Scale Factor, mA/g (Note 2)	1.1 to 1.4	1.1 to 1.4	1.1 to 1.4	1.8 to 2.8
Bias, milli-g, Max. (@ 25° C)	40	20	40	20
Axis Alignment, mRad, Max. (@ 25° C)	1.5	±1.5	1.5	4
Threshold and Resolution, µg, Max.	10	10	10	10
Bandwidth, Hz, Min.	300	300	300	300
Scale Factor Temp. Sens, PPM/°C, Max.:	+55°C to +125°C : ±200	+25°C to +100°C : ±80	+55°C to +180°C: ±200	±200
	+100°C to +125°C : ±170	+100°C to +125°C : ±150	+100°C to +180°C: ±170	
		+125°C to +150°C : ±200		
Bias Temp. Sens, µg/°C, Max.	±100	±100	±150	±150
Scale Factor Stability (1 month composite)	less than 250 ppm	less than 350 ppm	less than 250 ppm	less than 220 ppm
Bias Stability (1 month composite)	less than 250 µg	less than 500 µg	less than 250 µg	less than 220 µg
Noise, mgrms, Max. (0Hz to 10kHz) (Max.)	3	3	3	4
Weight (grams)	55	55	55	25

Electrical

Input Voltage, Vdc	±13 to ±18	±12 to ±18	±13 to ±18	±12 to ±15
Input Current (quiescent), mA (Max.)	12	12	12	20

Environmental

Operational Temp Range, °C	-55°C to +125°C	-55°C to +150°C	-55°C to +180°C	-40°C to +180°C
Vibration, (Sine)	25 Hz to 500 Hz, 25g	25 Hz to 500 Hz, 25g	25 Hz to 500 Hz, 25g	25 Hz to 500 Hz, 30g
Shock, g (0.5 msec, 1/2 sine)	1000	1000	1000	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.

ISO9001 CERTIFIED

www.jewellinstruments.com

Jewell Instruments

RELIABLE, HIGH PERFORMANCE PRODUCTS — EXCEPTIONAL SERVICE

FEATURING: Precision Quartz Flexure Accelerometers

Jewell Instruments presents mid- to high temperature range accelerometers with quartz flexure technology. Each are capable of measuring acceleration up to +/-30 G in a single-axis configuration. These compact sensors are ideal for applications where space is limited and temperature is extreme such as surveying, measure while drilling, borehole mapping and more.

Custom Application-Specific Solutions

Jewell Instruments provides both standard and custom solutions for a diverse group of industries, such as aerospace, medical, industrial, telecommunications, and rail markets. We manufacture a majority of our components in-house and work directly with our customers, maintaining control over the entire development processes. Our legacy of experience and success, and the expertise of our engineering team, mean customers benefit from extensive resources at their disposal.

Connecting Experience, Quality & Expertise

For over 60 years, Jewell Instruments has provided commercial and industrial sensors and controls, meters and avionics, and industrial test equipment solutions to a range of global markets. Our ISO 9001:2008 certification ensures that our customers receive products and systems with the dependability and reliability that their applications demand. Jewell Instruments' experienced engineering team works with customers to produce high quality, reliable products that meet or exceed their requirements.

Exceptional Customer Service

We specialize in reliability, value and responsiveness. Cooperation and joint planning between our engineering groups and our clients drive our customer care experience. We work as an extension of our customers' engineering and manufacturing teams to solve problems, improve applications, shorten lead-times and bring more value to their products and services. Superb customer support is the cornerstone of our many successful, long-term customer relationships.

Jewell Facilities

Jewell offers two, fully modernized manufacturing facilities, one in Manchester, New Hampshire and one in Barbados, West Indies.

Manchester Facility

Barbados Facility