

Swiveler™ ICP® Industrial Accelerometer

Conveniently Installs into Tight Places

- **Unique 360° Swivel Mount (Patent Pending)**
- **Small Size (9/16 inch Footprint, Low Profile)**
- **Lower Cost Alternative to Through Bolt Sensors**
- **Easy Cable Orientation**
- **Electronically Suppressed Resonance
Prevents High Frequency Saturation Problems**



Installing vibration sensors into tight spots is quick and easy with the Model 607A11 Swiveler™ ICP® Industrial Accelerometer. Its unique design facilitates positioning of the integral, side-exit cable while the floating lock nut secures the sensor into place. A low-cost, smaller-sized alternative to ring-style accelerometers, the Swiveler™ has definite advantages over other industrial grade vibration sensors. Offering a small footprint (only 9/16 inch) and 360° cable rotation, the Swiveler™ is excellent for permanent installations in space-restricted locations. The unit's

laser-welded, hermetically-sealed design and stainless steel construction permits its use in dirty, oily, industrial, and submerged applications. With a sensitivity of 100 mV/g and a frequency range to 600k cpm (10k Hz), the Model 607A11 is ideal for route-based or on-line monitoring of rotating machinery.

Model 607A11 Swiveler™ ICP® Industrial Accelerometer Specifications

Dynamic Performance

Voltage Sensitivity	(± 15%)	100 mV/g (10.2 mV/(m/s ²))
Frequency Range	(± 5%)	72 to 300k cpm (1.2 to 5000 Hz)
	(± 10%)	52 to 420k cpm (0.87 to 7000 Hz)
	(± 3 dB)	26 to 600k cpm (0.43 to 10k Hz)
Resonant Frequency		1500k cpm (25k Hz)
Amplitude Range		± 50 g (± 490 m/s ²)
Amplitude Linearity		± 1 %
Transverse Sensitivity		≤ 5 %
Resolution (broadband) (1 to 10k Hz)		300 µg (2943 µm/s ²)

Environmental

Mechanical Shock Limit		5000 g pk (49k m/s ² pk)
Temperature Range		-65 to +250 °F (-54 to +121 °C)

Electrical

Settling Time (within 1% of bias)		≤ 2.0 sec
Excitation Voltage		18 to 28 VDC
Constant Current Excitation		2 to 20 mA
Output Impedance		< 150 ohms
Output Bias Voltage		8 to 12 VDC
Discharge Time Constant		≥ 0.4 sec
Spectral Noise	(10 Hz)	8 µg/√Hz (78.5 (µm/s ²)/√Hz)
	(100 Hz)	3 µg/√Hz (29.4 (µm/s ²)/√Hz)
	(1000 Hz)	2.5 µg/√Hz (24.5 (µm/s ²)/√Hz)
Ground Isolation (case)		> 10 ⁸ ohms

Mechanical

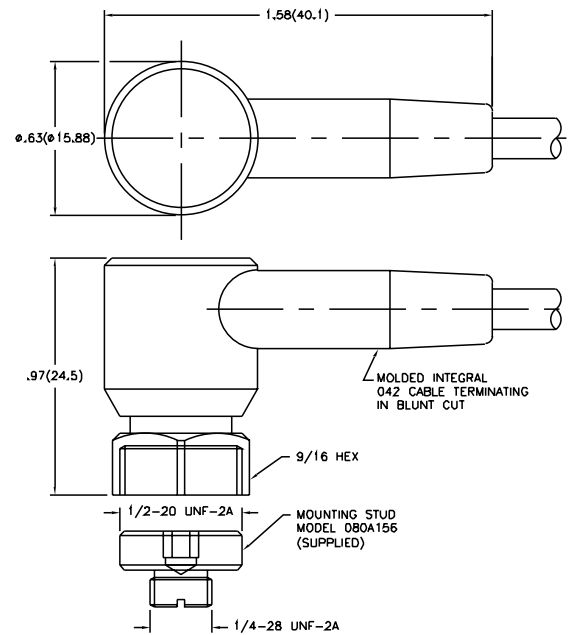
Size (hex x height)		9/16 x 0.97 in (9/16 in x 24.5 mm)
Weight (1)		3.6 oz (102 gm)
Mounting Thread		1/4-28 UNF
Mounting Torque (1/4-28 Mounting Stud)		7 to 8 ft-lb (9.5 to 10.8 N-m)
Mounting Torque (9/16" Hex Nut)		2 to 5 ft-lb (2.7 to 6.8 N-m)
Sensing Element/Geometry		Ceramic/Shear
Case Material		Stainless Steel
Sealing		Welded Hermetic
Connector Type/Position		Molded Integral Cable/Side

Notes:

1. Weight includes 10 ft integral cable and mounting stud.

Supplied Accessories:

Model 080A156 Mounting Stud
Single point NIST traceable calibration at 100 Hz



Available Versions

- Model 607A11** — Standard 10 ft (3m) integral cable
- Model 607A11/020BZ** — 20 ft (6m) integral cable
- Model 607A11/030BZ** — 30 ft (9m) integral cable
- Model M607A11** — Supplied with Model 080A159 metric mounting stud (with M6 x 1.0 installation thread)

The IMI Division of PCB Piezotronics, Inc. specializes in the development, application, and support of industrial vibration sensors, meters, and accessories for machinery condition monitoring and predictive maintenance requirements. This product focus, coupled with the strengths and resources of PCB, permits IMI to offer timely response to client's needs, exceptional customer service, 24-hour technical assistance and a **Total Customer Satisfaction guarantee.**



Postfach 1109 • 52437 Linnich
Tel: 0 24 62/99 19-0 • Fax: 0 24 62/99 19-79
E-Mail: info@synotech.de • www.synotech.de

Spindler™ ICP® Industrial Accelerometer

Miniature yet Rugged Sensor Monitors Vibration Levels of High-Speed Spindle Bearings

- **Unique 360° Swivel Mount (Patent Pending)**
- **Small Size (9/16 inch Footprint, Low Profile)**
- **Lower Cost Alternative to Through Bolt Sensors**
- **Easy Cable Orientation**
- **Electronically Suppressed Resonance
Prevents High Frequency Saturation Problems**



The Spindler™ ICP® Accelerometer from IMI™ provides unique advantages for monitoring vibration levels of high-speed, rotating machinery. The small size and swivel mounting permit installation in close quarters yet the durable, stainless steel housing, with sealed armored cable, stands up to the rigors of cutting fluids and flying debris. Integrated electronic filtering prevents saturation problems while maintaining the ability to respond to high frequency vibrations. The sensor is ideal for predictive maintenance and condition based monitoring applications as well as facilitating machined part quality assurance by detecting tool wear.

Model 607A61 Spindler™ ICP® Industrial Accelerometer Specifications

Dynamic Performance

Voltage Sensitivity	(± 15%)	100 mV/g (10.2 mV/(m/s ²))
Frequency Range	(± 5%)	72 to 300k cpm (1.2 to 5000 Hz)
	(± 10%)	52 to 420k cpm (0.87 to 7000 Hz)
	(± 3 dB)	26 to 600k cpm (0.43 to 10k Hz)
Mounted Resonant Frequency		1500k cpm (25k Hz)
Amplitude Range		± 50 g (± 490 m/s ²)
Amplitude Linearity		± 1 %
Transverse Sensitivity		≤ 5 %
Resolution (broadband) (1 to 10k Hz)		300 µg (2943 µm/s ²)

Environmental

Mechanical Shock Limit		5000 g pk (49k m/s ² pk)
Temperature Range		-65 to +250 °F (-54 to +121 °C)

Electrical

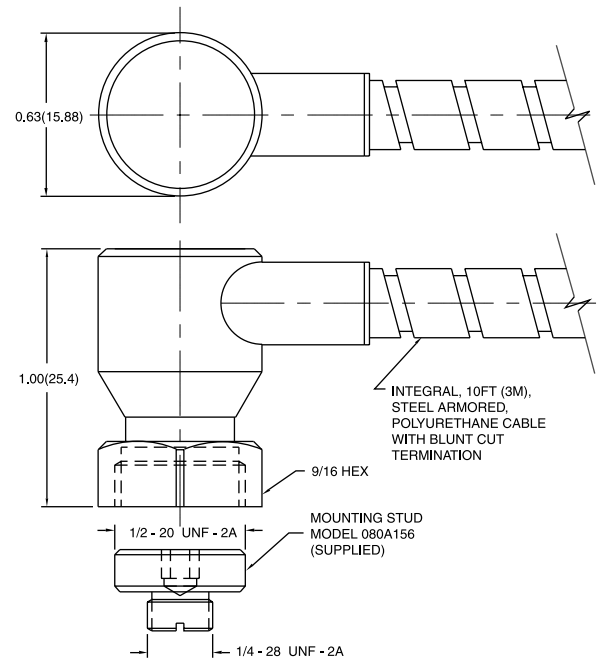
Settling Time (within 1% of bias)		≤ 2.0 sec
Excitation Voltage		18 to 28 VDC
Constant Current Excitation		2 to 20 mA
Output Impedance		< 150 ohms
Output Bias Voltage		8 to 12 VDC
Discharge Time Constant		≥ 0.4 sec
Spectral Noise	(10 Hz)	8 µg/√Hz (78.5 (µm/s ²)/√Hz)
	(100 Hz)	3 µg/√Hz (29.4 (µm/s ²)/√Hz)
	(1000 Hz)	2.5 µg/√Hz (24.5 (µm/s ²)/√Hz)
Ground Isolation (case)		> 10 ⁸ ohms

Mechanical

Size (hex x height)		9/16 x 1.0 in (9/16 in x 25.4 mm)
Weight (includes 10 ft of cable and stud)		9.5 oz (269 gm)
Mounting Thread		1/4-28 UNF
Mounting Torque (1/4-28 Mounting Stud)		7 to 8 ft-lb (9.5 to 10.8 N-m)
Mounting Torque (9/16 Hex Nut)		2 to 5 ft-lb (2.7 to 6.8 N-m)
Sensing Element/Geometry		Ceramic/Shear
Case Material		Stainless Steel
Sealing		Welded Hermetic
Connector Type/Position		Integral Armored Cable/Side

Supplied Accessories:

Model 080A156 Mounting Stud
Single point NIST traceable calibration at 100 Hz



Available Versions

- Model 607A61** — Standard 10 ft (3m) integral, armor-jacketed cable
- Model 607A61/020BZ** — 20 ft (6m) integral, armor-jacketed cable
- Model 607A61/030BZ** — 30 ft (9m) integral, armor-jacketed cable
- Model M607A61** — Supplied with Model M080A159 metric mounting stud (with M6 x 1.0 installation thread)

The IMI Division of PCB® Piezotronics, Inc. specializes in the development, application, and support of industrial vibration sensors, meters, and accessories for machinery condition monitoring and predictive maintenance requirements. This product focus, coupled with the strengths and resources of PCB, permits IMI to offer timely response to client's needs, exceptional customer service, 24-hour technical assistance and a **Total Customer Satisfaction guarantee.**



Postfach 1109 • 52437 Linnich
Tel: 0 24 62/99 19-0 • Fax: 0 24 62/99 19-79
E-Mail: info@synotech.de • www.synotech.de