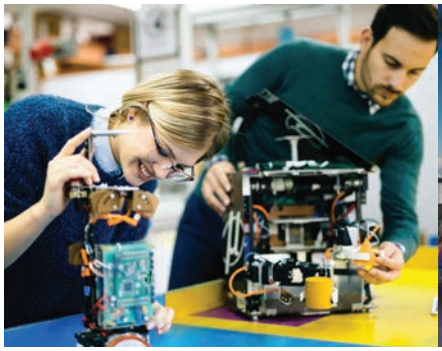
PCB PIEZOTRONICS
AN AMPHENOL COMPANY



MODELS
354B04 & 354B05

CASE ISOLATED TRIAXIAL ICP® ACCELEROMETERS WITH TEDS

- Case isolated titanium housing reduces noise caused by high magnetic fields
- Low outgassing and hermetically sealed for use under a vacuum
- Thru-hole mount with supplied mounting screws[1]
- TEDS 1.0, IEEE 1451.4 enabled

[1] Glue mount is also possible without the need for an isolation layer

CE

FEATURING EXPANDED FREQUENCY RANGE UP TO 10,000 HZ

PCB® is launching new models 354B04 and 354B05 accelerometers with extended upper frequency limit of 10,000 Hz at 5% deviation. They utilize ceramic sensing elements in a shear arrangement, offering high output and low noise for excellent signal to noise ratio. Their case-isolated design with titanium housing provides ruggedness and reduces noise with much improved longevity over use of non-isolated accelerometers with insulated coatings or polyimide tape. Integrated ICP® electronics provide a low impedance voltage output capable of being transmitted over long cable lengths. The thru-hole, hermetically sealed housing installs with a single fastener, allowing 360 degree rotation to align specific axes. Output is through a ¼-28 four pin connector wired for TEDS IEEE 1451.4 enabled for easy tracking and record keeping.

TYPICAL APPLICATIONS

- Vibration measurements in the presence of electrical noise
- Flight and ground vibration testing
- Environmental Stress Screening (ESS)
- Modal analysis

SPECIFICATIONS

Model	354B04		354B05	
	English:	SI:	English:	SI:
Performance				
Sensitivity (±5 %)	10 mV/g	1.02 mV/(m/s²)	100 mV/g	10.2 mV/(m/s²)
Measurement Range	±500 g pk	±4,905 m/s² pk	±50 g pk	±491 m/s² pk
Frequency Range (±5 %)	0.6 to 10,000 Hz			
Resonant Frequency	≥25 kHz			
Broadband Resolution (1 to 10000 Hz)	0.0005 g rms	0.005 m/s² rms	0.0003 g rms	0.003 m/s² rms
Non-Linearity [Typical]	≤1 %			
Transverse Sensitivity	≤5 %			
Environmental				
Overload Limit (Shock)	±5,000 g pk	±49,050 m/s² pk	±5,000 g pk	±49,050 m/s² pk
Temperature Range (Operating)	-65 to +200 °F	-54 to +93 °C	-65 to +200 °F	-54 to +93 °C
Base Strain Sensitivity	0.004 g/με	0.04 (m/s²)/με	0.003 g/με	0.03 (m/s²)/με
Electrical				
Excitation Voltage	24 to 30 VDC			
Constant Current Excitation	2 to 20 mA			
Output Impedance	≤100 Ohm			
Output Bias Voltage	8 to 12 VDC			
Spectral Noise (1 Hz)	170 μg/√Hz	1668 (μm/sec²)/√Hz	170 μg/√Hz	1668 (μm/sec²)/√Hz
Spectral Noise (10 Hz)	25 μg/√Hz	245 (μm/sec²)/√Hz	25 μg/√Hz	245 (μm/sec²)/√Hz
Spectral Noise (100 Hz)	8 μg/√Hz	78 (μm/sec²)/√Hz	8 μg/√Hz	78 (μm/sec²)/√Hz
Spectral Noise (1 kHz)	6 μg/√Hz	59 (μm/sec²)/√Hz	6 μg/√Hz	59 (μm/sec²)/√Hz
Spectral Noise (10 kHz)	4 μg/√Hz	39 (μm/sec²)/√Hz	4 μg/√Hz	39 (μm/sec²)/√Hz
Electrical Isolation (Case)	>10⁸ Ohm			
Physical				
Sensing Element	Ceramic / Annular Shear			
Housing Material	Titanium			
Sealing	Hermetic			
Weight	0.51 oz	14.5 gm	0.51 oz	14.5 gm
Electrical Connector	1/4-28 4-Pin			
Supplied Accessories	Quantity 1 of each of the following: Model 081A105 Mounting screw (6-32 x ½ in) Model M081A103 Mounting screw and washer, (M3 x 0.5) Model 039A22 Allen wrench for 6-32 screw Model M039A22 Allen Wrench for M3 screw			

RECOMMENDED CABLES:

Model 010G

General purpose, 10-feet and 20-feet,
¼ – 28 four socket plug to triple splice 3 BNC plugs

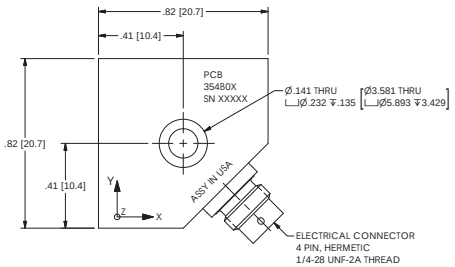
Model 078G

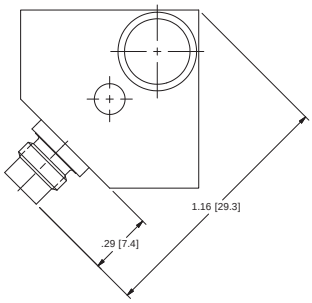
Rugged, flexible, 10-feet and 20-feet,
¼– 28 four socket plug to triple splice 3 BNC plugs

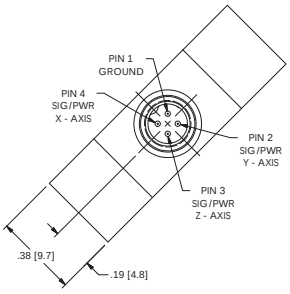
Model 034W10

4-conductor, shielded, 10-feet,
¼– 28 four socket plug to triple splice 3 BNC plugs

Special Low Outgassing Cables also available.







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