

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

PCB PIEZOTRONICS
AN AMPHENOL COMPANY



SERIES **393**

SENSORS FOR SEISMIC TESTING



- Piezoelectric ICP® accelerometers, cables, and signal conditioners
- High sensitivity output
- Extended low frequency measurement capability
- Resolution down to 1.0 µg rms
- Hermetically sealed, stainless steel or titanium housings
- Durable, water resistant connectors

TYPICAL APPLICATIONS

- Smart infrastructure - foundation, floor vibration, and security monitoring
- Earthquake detection / sway fatigue analysis
- Structural testing of bridges and foundations
- Process monitoring inside machinery that is susceptible to low level vibration

LOW FREQUENCY, HIGH OUTPUT ICP® ACCELEROMETERS

Earth tremors, foot, truck and automobile, road and bridge traffic, trains or other seismic events impart low frequency vibration on foundations intended to support these daily activities. These vibratory loads accumulate as stress and may degrade the structure. Smart infrastructure includes active measurement with real-time data logging that informs operators on structural integrity; critical during unforeseen loading scenarios. Cities of the future will manage not only new structures but those with critical or historical value, reducing potential for catastrophic failure.

PCB® is supporting advancements in sensor technology to take low frequency measurements to micro-g levels with ICP® accelerometers. In doing so, structural integrity data can be obtained on a routine, real-time basis. Permanently installed, high-output accelerometers are being mounted to bridges, walkways, highways, buildings, and other large structures to capture important trending data. Information gathered will aid engineers in evaluating structural integrity and alert communities when safety thresholds are approaching. This type of preventive maintenance can warn engineers that structural repair is necessary before a major catastrophe occurs.

SPECIFICATIONS

Model Number	393A03	393B04	393B32	393B12	393B05	393B31
Performance						
Sensitivity	1.0 V/g	1.0 V/g	5.0 V/g	10 V/g	10 V/g	10 V/g
Measurement Range	±5.0 g pk	±5.0 g pk	±1.0 g pk	±0.5 g pk	±0.5 g pk	±0.5 g pk
Frequency Range (±5%)	0.5 to 2,000 Hz	0.06 to 450 Hz	0.2 to 200 Hz	0.15 to 1,000 Hz	0.7 to 450 Hz	0.1 to 200 Hz
Resonant Frequency	≥10,000 Hz	≥2,500 Hz	≥700 Hz	≥10,000 Hz	≥2,500 Hz	≥700 Hz
Broadband Resolution	0.00001 g rms	0.000003 g rms	0.000002 g rms	0.000008 g rms	0.000004 g rms	0.000001 g rms
Non-Linearity	≤1 %	≤1 %	≤1 %	≤1 %	≤1 %	≤1 %
Transverse Sensitivity	≤7 %	≤5 %	≤5 %	≤7 %	≤5 %	≤5 %
Overload Limit (Shock)	±5000 g pk	±300 g pk	±40 g pk	±5000 g pk	±300 g pk	±40 g pk
Base Strain Sensitivity	≤0.0005 g/μ	≤0.0005 g/μ	≤0.0005 g/μ	≤0.0005 g/μ	≤0.0005 g/μ	≤0.0005 g/μ
Temperature Range	-65 to +250 °F	-15 to +176 °F	-15 to +150 °F	-50 to +180 °F	-15 to +176 °F	-15 to +150 °F
Electrical						
Excitation Voltage	18 to 30 VDC	18 to 30 VDC	24 to 28 VDC	18 to 30 VDC	18 to 30 VDC	24 to 28 VDC
Constant Current Excitation	2 to 20 mA	2 to 10 mA	2 to 10 mA	2 to 20 mA	2 to 10 mA	2 to 10 mA
Output Impedance	<250 Ohm	<500 Ohm	≤500 Ohm	<1500 Ohm	<500 Ohm	≤500 Ohm
Output Bias Voltage	8 to 12 VDC	7 to 12 VDC	8 to 14 VDC	8 to 12 VDC	7 to 12 VDC	8 to 14 VDC
Discharge Time Constant	1 to 3 sec	5 to 15 sec	≥2 sec	≥3.5 sec	0.5 to 2.0 sec	≥5 sec
Settling Time	<15 sec	<100 sec	≤10 sec	<60 sec	<100 sec	60 sec
Spectral Noise (1 Hz) (Typical)	2 μg/√Hz	0.30 μg/√Hz	0.12 μg/√Hz	1.30 μg/√Hz	0.50 μg/√Hz	0.06 μg/√Hz
Spectral Noise (10 Hz) (Typical)	0.5 μg/√Hz	0.10 μg/√Hz	0.02 μg/√Hz	0.32 μg/√Hz	0.10 μg/√Hz	0.01 μg/√Hz
TEDS 1.0 version available (TLD)	–	Yes	–	–	Yes	–
Physical						
Sensing Element	Ceramic					
Sensing Geometry	Shear	Flexural	Flexural	Shear	Flexural	Flexural
Housing Material	Stainless Steel	Titanium	Stainless Steel	Stainless Steel	Titanium	Stainless Steel
Size - Diameter / Hex	1.18 in	0.99 in	2.25 in	1.18 in	0.99 in	2.25 in
Size - Height	2.18 in	1.22 in	2.80 in	2.18 in	1.22 in	2.80 in
Weight	210 gm (7.4 oz)	50 gm (1.8 oz)	635 gm (22.4 oz)	210 gm (7.4 oz)	50 gm (1.8 oz)	635 gm (22.4 oz)
Electrical Connector	2-Pin MIL-C-5015	10-32 Coaxial Jack	2-Pin MIL-C-5015	2-Pin MIL-C-5015	10-32 Coaxial Jack	2-Pin MIL-C-5015
Mounting Thread	1/4-28 Female	10-32 Female	1/4-28 Female	1/4-28 Female	10-32 Female	1/4-28 Female

Coaxial Cable Material & Type	Electrical Connectors	Cable Model by Length					
		3 ft (0.9 m)	5 ft (1.5 m)	10 ft (3.0 m)	20 ft (6.1 m)	30 ft (9.1 m)	50 ft (15.2 m)
002 - White FEP, General Purpose	10-32 Plug to BNC Plug	002C03	002C05	002C10	002C20	002C30	002C50
003 - Blue TFE, Low Noise	10-32 Plug to BNC Plug	003C03	003C05	003C10	003C20	003C30	003C50
012 - Black PVC, RG58/U	2-Pin MIL-C-5015 to BNC Plug	–	012E05	012E10	012E20	–	012E50
012 - Black PVC, RG58/U	BNC Plug to BNC Plug	012A03	012A05	012A10	012A20	012A30	012A50





Basic 4-Channel ICP® Signal Conditioner
Model 482C05

PCB PIEZOTRONICS
AN AMPHENOL COMPANY

3425 Walden Avenue, Depew, NY 14043 USA

pcb.com | info@pcb.com | 800 828 8840 | +1 716 684 0001

© 2021 PCB Piezotronics - all rights reserved. PCB Piezotronics is a wholly-owned subsidiary of Amphenol Corporation. Endevco is an assumed name of PCB Piezotronics of North Carolina, Inc., which is a wholly-owned subsidiary of PCB Piezotronics, Inc. Accumetrics, Inc. and The Modal Shop, Inc. are wholly-owned subsidiaries of PCB Piezotronics, Inc. IMI Sensors and Larson Davis are Divisions of PCB Piezotronics, Inc. Except for any third party marks for which attribution is provided herein, the company names and product names used in this document may be the registered trademarks or unregistered trademarks of PCB Piezotronics, Inc., PCB Piezotronics of North Carolina, Inc. (d/b/a Endevco), The Modal Shop, Inc. or Accumetrics, Inc. Detailed trademark ownership information is available at www.pcb.com/trademarkownership.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP