



Industrial Vibration Monitoring Instrumentation

For Condition Monitoring and Predictive Maintenance

PCB® Piezotronics, Inc. is uniquely positioned in the sensor industry to satisfy a wide range of research, test, measurement, monitoring, and control applications.

IMI Sensors, a division of PCB Piezotronics, Inc., manufactures industrial accelerometers, vibration sensors, 4-20 mA transmitters, and related accessories for predictive maintenance, condition monitoring, and machinery vibration analysis. The instrumentation is used to monitor bearings, gears, motors, spindles and other rotating machinery in harsh factory environments. All products are designed and manufactured in ISO 9001 certified facility of PCB in the U.S.A.

Structural Solutions Private Limited exclusively represents PCB Piezotronics, Inc., U.S.A in India. **Structural Solutions Private Limited** is a professional engineering company engaged in offering high end technology intensive products and system solutions to Indian Process industry for condition Monitoring and Predictive maintenance and Machinery vibration analysis.



ICP® ACCELEROMETERS

LOW-COST INDUSTRIAL ICP® ACCELEROMETERS

- Ideal for permanent installations
- Safe to use in hazardous or inaccessible locations.
- Connect through switch box or junction box.
- NIST traceable, single point calibration
- Welded, hermetic sealed
- Ceramic, Quarts, Swiveler & Ring style versions
- 10/100 mV/g, 50 - 500g, 0.5 to 10kHz ranges

Model : 627A01
Quartz, Low Cost
100 mV/g
0.3 to 10kHz



PRECISION INDUSTRIAL ICP® ACCELEROMETERS

- Ideal for roving use with route-based data collection.
- Available with velocity output, & temperature output
- High temperature and intrinsically safe approvals
- Low and high frequency industrial models
- Ceramic, Quarts, Ring, High range, versions
- 10, 100, 500, 1000 mV/g, 10, 50, 500g, 0.2 to 10kHz

Ceramic, High Sensitivity
Model 626B02
500 mV/g
0.2 to 6000 Hz



MULTI-AXIS INDUSTRIAL ICP® ACCELEROMETERS

- Simultaneous radial & axial bearing vibration measurements.
- Direct Data Collectors/FFT analyzers interface.
- Triaxial & Biaxial versions
- 100 mV/g, 10 - 50g, 0.5 to 12 kHz

Model 605B31
Biaxial, Low Cost
100 mV/g (all axes)
0.43 to 5000 Hz



SWIVEL-MOUNT ICP® ACCELEROMETERS

- Easy-to-install, patented, swivel mount design.
- Cable rotation into any desired orientation.
- Ideal for high-speed Machinery and spindles.
- Ceramic/Shear Versions
- 100 mV/g, 50g, 0.5 to 10kHz

Swiveler
Model 607A01
100 mV/g
0.4 to 10kHz



EXTREME HIGH-TEMPERATURE, CHARGE OUTPUT ACCELEROMETERS

- Available both Charge or ICP with charge converter connected by a welded hardline cable.
- Sensor temperature range to 900 °F (482 °C)
- Ceramic/ Shear/ welded/ sealed versions
- 30 pC/g, 100 pC/g & 100 mV/g, 1000 mV/g sensitivity.
- 1 to 100kHz range

Model : 600A13
100 pC/g
0.4 to 2kHz



4-20 mA VIBRATION SYSTEMS

VIBRATION SENSOR

- Loop powered sensors with intrinsic safety barrier
- AC or DC powered transmitters
- Permanent monitoring installations
- Acceleration or velocity output signal versions
- Direct Interface with PLC, DCS & SCADA systems
- 0 to 12, 25, 50 & 100 mm/s pk measurement range

Series 640
4-20 mA output
2-wire, loop powered



DIN RAIL SIGNAL CONDITIONERS

- Power supply, Conditioner & Transmitter
- Provides constant current ICP® sensor excitation.
- Adjustable low-pass and high-pass filtering.
- Peak or RMS proportional output.
- Acceleration, Velocity or Displacement selection
- 24 VDC powered DIN rail mount.
- 4-20 mA output proportional to Temperature.
- NEMA- 4X enclosure.

Model : 682A03
24 VDC, powered
ICP signal conditioner
input to 4-20 mA output



ALARM MODULE

- Accepts 4-20 mA signal input.
- Provides two 5 A, Form C alarm relays
- with selectable 30 second time delay.
- DIN rail mount.

Model : 682A04
24 VDC powered
Provides two 5 amp,



INDICATOR/ALARM

- Provides 24 VDC excitation for 4-20 mA sensors.
- Highly visible, fully scalable LED display.
- Up to four programmable set point relays.
- Time delay eliminates false alarm trips.
- 1/8 DIN panel mounting.
- User-friendly, menu-driven set up.

Series 683A
1/8 DIN, panel-mount
Two, 5 Amp, time-delayed
Form A relay contacts



ELECTRONIC VIBRATION SWITCH

- Initiates Alarm or Shutdown due to Excessive Vibration.
- Detects Machinery Imbalance, Misalignment, Worn bearings, and Gear Faults.
- 5 Amp form C Relay with Selectable Latching or Non - Latching Action.
- Time Delay for eliminating false trips during Upsets, Startup, or Shutdown.
- Ideal for Fans, Engines, Compressors, pumps and Other Critical Equipments.

Model : 685A01
24 VDC powered
One, form C, 5 Amp relay
Explosion proof housing
10 g acceleration or 1
ips velocity F.S. range



HIGH-TEMPERATURE, CHARGE OUTPUT ACCELEROMETER KITS

- Kits include charge mode accelerometer, charge converter, and high temperature cable
- Sensor temperature range to 500 °F (260 °C)
- Variety of in-line charge converters for system sensitivities of 10, 100, or 1000 mV/g
- System operates from standard ICP® sensor signal conditioner or data collector that provides ICP® sensor excitation.

Kit Model	Sensitivity Cable	Type
600A06	10 mV/g (1 mV/(m/s ²))	Teflon
600A08	10 mV/g (1 mV/(m/s ²))	Armored Teflon
600A02	100 mV/g (10 mV/(m/s ²))	Teflon
600A03	100 mV/g (10 mV/(m/s ²))	Armored Teflon
600A07	1000 mV/g (10 mV/(m/s ²))	Teflon
600A09	1000 mV/g (10 mV/(m/s ²))	Armored Teflon



**Armored Teflon Cable
Model 045M06**
10 ft (3 m length)
2-pin, military-style connectors



**High-Temperature, Charge Mode
Industrial Accelerometer
Model 612A02**
26 pC/g
2.6 pC/(m/s²)
Response to 10kHz, 600k cpm



**In-Line Charge Converters
Series 422E20**
Welded, stainless steel construction
Hermetically sealed
2-pin, military-style connectors

JUNCTION BOXES, SWITCH BOXES, TRANSMITTERS, ENCLOSURES

- Simplify data collection by routing sensor cables to one central location
- Promote data collection safety by keeping workers out of hazardous areas
- Access more data points in less time



Model 691A50/12 BNC Termination Box

- For use with data collectors that supply ICP sensor power
- 12 input channels via terminal strip
- 12 output channels via BNC's
- NEMA-4X (IP66) enclosure



Model 691B47 Rotary Switch Box

- For use with data collectors that supply ICP sensor power
- 16 input channels via terminal strip
- BNC output connector for switched vibration signal
- NEMA-4X (IP66) enclosure



**Model 691A26
Rotary Junction Box**

- For use with on-line monitoring systems and data collectors that do not supply ICP sensor power
- 48 input channels via terminal strip
- BNC output connectors for switched vibration and tachometer signals
- Optional simultaneous output of all channels over multi-conductor bus connector
- Versions to accommodate 12, 24, or 36 channels
- NEMA-4X (IP55) enclosure

Vibration Calibrator and Vibration Meter



**Model 699A02
Hand Held Shaker**

- Verifies vibration sensor operation and sensitivity
- Delivers a controlled, 1 g rms or 1 g pk vibration at 159.2 Hz
- Battery powered
- Tests sensors weighing up to 250 grams



Model 687A01 Portable Vibration Meter

- Measures overall rms Vibration levels in g or in/sec pk
- 3 1/2 digit LCD display
- Includes accelerometer, installation magnet, and headphones for Audible monitoring of structure Borne noise

Complete range of ICP & Charge mode accelerometers, Vibration Systems, Calibrators, Vibration Meters, Cables & Accessories will be offered either in Foreign exchange or in Rupees at competitive prices by **Structural Solutions Private Limited**.

CABLES, ACCESSORIES

Cable Assemblies for Industrial Accelerometers

- General purpose polyurethane or high temperature Teflon
- Rugged military style connectors In metal or plastic
- Made-to-order lengths

Custom Cable Assemblies

- Styles for virtually any installation requirement
- Versions to interface with most data collectors
- Shielded for noise immunity



➡ For further product & application details please contact:

Structural Solutions Private Limited

Bangalore

Sugnana, 1st Floor,
9, 1st Main Road, Ganganagar,
Bangalore - 560 032.
Ph : 080-2354 8889
Fax : 080-2354 7505
Email : bangalore@stsols.com

Kolkata

51/3B, Karaya Road, First Floor,
Kolkata - 700 019.
Ph : 033-2247 2993, 2283 6735
Fax : 033-2283 6734
Email : kolkata@stsols.com

Chennai

Saijothi, A-F1, 1,3rd Street,
Satyavathi Nagar, Officer's Colony,
Anna Nagar West Extn.,
Chennai - 600 101.
TeleFax : 044 - 2654 9409.
Email : chennai@stsols.com

Hyderabad (Head office)

301 & 303 - Eldorado Estate, 3-6-526,
Himayath Nagar, Hyderabad - 500 029.
Ph : 040-2763 6433 , 2762 0569
Fax : 040-2763 6435
Email : sales@stsols.com

Delhi

6478, Sector C,
Pocket 6 & 7, Vasant Kunj,
New Delhi - 110 070.
Ph : 011 - 5176 7790
Fax : 011- 5176 7791
Email : delhi@stsols.com

Pune

15, Rajanigandha Apartment,
D.P.Road, Aundh,
Pune - 411 007.
Ph : 93733 13907
Email : pune@stsols.com

