Click to Learn More! >

ICP® Strain Sensors

Monitor forces indirectly via strain measurements on machine tools, production machinery, mechanical presses, and plastics molds

- Measure Longitudinal Strain on Machinery Structures
- Control Press Forces and Other Processes
- Monitor Quality, Safety, and Reliability
- Robust Construction Endures Harsh, Industrial Environments
- Simple Installation is Non-Invasive to Process

Series M240
Industrial ICP® Strain Sensors
(Actual Size)

The Series M240 Industrial ICP® Strain Sensors incorporate piezoelectric quartz sensing crystals that respond to a longitudinal change in distance. The resultant strain measurand is an indirect measurement of stress forces acting along the structure to which the sensor is mounted. As such, these devices can provide insight into the behavior of mechanical systems or processes that generate an associated machinery reaction.

Monitoring such measurement signals can provide the necessary indication for process interrupt and pass — fail decisions or for determining wear and degradation of equipment and tooling. The sensors are used for controlling processes in plastics injection molding, stamping, and pressing, as well as monitoring processes and final product quality. These devices are easy to install and can be powered by any ICP® sensor signal conditioner.

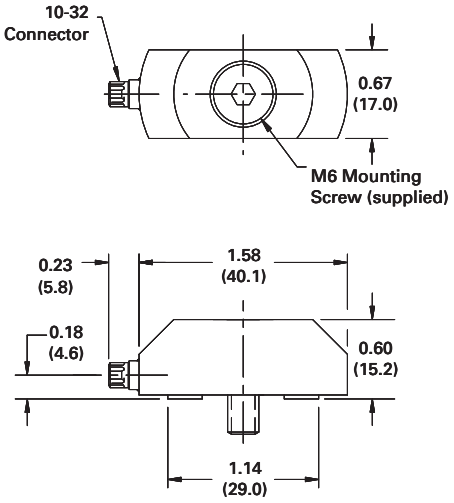
As with all equipment from PCB, these sensors are complemented with toll-free applications assistance, 24-hour customer service, and are backed with a Total Customer Satisfaction guarantee.

PCB PIEZOTRONICS INC.
FORCE / TORQUE DIVISION

Total Customer Satisfaction Guaranteed

Specifications

Model	Series M240
Performance	**English**
Sensitivity (± 20%):	
Model M240A01	100 mV/με
Model M240A02	50 mV/με
Model M240A03	10 mV/με
Amplitude Range:	
Model M240A01	50 pk με
Model M240A02	100 pk με
Model M240A03	300 pk με
Broadband Resolution (1 Hz to 10 kHz):	
Model M240A01	0.0001 με
Model M240A02	0.0002 με
Model M240A03	0.001 με
Common Specifications	
Low Frequency Response (-5%)	0.004 Hz
Amplitude Linearity	± 2 %
Electrical	
Excitation Voltage	20 to 30 VDC
Constant Current Excitation	2 to 20 mA
Output Bias Voltage	8 to 14 VDC
Discharge Time Constant	≥ 150 sec
Environmental	
Operating Temperature	-65 to +250 °F (-54 to +121 °C)
Mechanical	
Sensing Element	Quartz
Housing	Stainless Steel
Electrical Connector	10-32 coaxial
Size (w × l × h)	0.67 × 1.81 × 0.6 in (17 × 46 × 15.2 mm)
Weight	1.6 oz (45 gm)
Mounting Thread	M6 × 1.00-6g
Supplied Accessories	
Mounting Screw (metric)	M6 × 1.00-6g



Series M240
Industrial ICP® Strain Sensors

Dimensions shown are in inches (millimeters)

PCB PIEZOTRONICS INC.
A PCB GROUP COMPANY

3425 Walden Avenue, Depew, NY 14043-2495 USA
Force / Torque Division toll free 888-684-0004
24-hour SensorLine℠ 716-684-0001
Fax 716-684-8877 **E-mail** force@pcb.com
Web site www.pcb.com

ISO 9001:2000 CERTIFIED A2LA ACCREDITED to ISO 17025

FTO-M240-0604 Printed in U.S.A.

The Force/Torque Division of PCB® Piezotronics, Inc. specializes in the development, application, and support of piezoelectric and strain gage force sensors, load cells, strain sensors, and torque sensors for a wide range of research, test, measurement, monitoring, and control requirements. This product focus, coupled with the strengths and resources of PCB, permits the Force/Torque Division to offer exceptional customer service, 24-hour technical assistance, and a **Total Customer Satisfaction** guarantee.

Visit **www.pcb.com** *to locate your nearest sales office*