ICP® Slurry Pulsation Pressure Sensors

For Monitoring Paper Slurry Pulsations in Headbox and Piping Systems

- Detect and Monitor Dynamic Pressure Pulsations of Paper Slurry in Headbox and Piping Systems
- Troubleshoot and Determine Root Cause of Slurry Flow Irregularities
- Reduce Maintenance and Improve System Efficiency
- Improve Product Quality

Model 106C10 ICP® Slurry Pulsation Pressure Sensor
(**Model 106C20** is longer but otherwise similar)

The **Models 106C10** and **106C20** are high-sensitivity, piezoelectric pressure sensors that have been specifically designed for measuring fast pressure transients, surges, spikes, and pulsations in paper slurry delivery systems. The units install through check valves and adjust for flush mounting within the slurry flow. Except for overall length, the units are identical.

Useful for both the headbox and other areas of paper making machinery, these sensors aid in root cause determination of pumping inconsistencies, which can lead to defects in the final product. In addition, system efficiencies can be improved, along with a reduction of excessive machinery wear and maintenance.

With a 300 mV/psi sensitivity, both the 106C10 and 106C20 can detect very minute pressure fluctuations, and since piezoelectric pressure sensors are AC coupled devices, any ambient, static pressure, or very slow pressure changes are ignored. These properties permit the units to monitor low-level dynamic pressures while being subjected to high static background pressure levels.

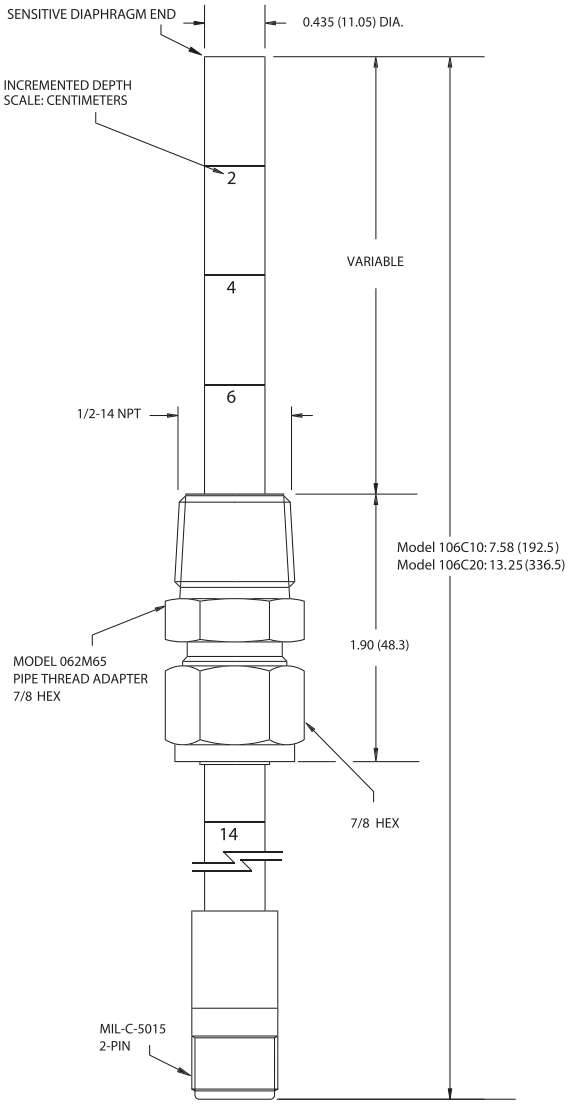
As with all equipment from PCB®, these sensors are complemented with toll-free applications assistance, 24-hour customer service, and are backed by a **Total Customer Satisfaction** guarantee.

PCB PIEZOTRONICS INC.
PRESSURE DIVISION

Specifications

Performance	English	SI
Sensitivity (±20%)	300 mV/psi	43.5 mV/kPa
Dynamic Measurement Range	8.3 psi	57.2 kPa
Broadband Resolution	0.0001 psi	0.00069 kPa
Maximum Dynamic Pressure	100 psi	690 kPa
Maximum Combined Pressure	200 psi	1380 kPa
Resonant Frequency	≥ 60 kHz	≥ 60 kHz
Rise Time	≤ 9 µsec	≤ 9 µsec
Low Frequency Response (-5%)	0.05 Hz	0.05 Hz
Discharge Time Constant	≥ 10 sec	≥ 10 sec
Non-Linearity	≤ 1% FS	≤ 1% FS
Environmental		
Acceleration Sensitivity	≤ 0.05 psi/g	≤ 0.035 kPa/m/s²
Temperature Range	-65 to +250 °F	-54 to +121 °C
Temperature Coefficient of Sensitivity	≤ 0.03 %/°F	≤ 0.054 %/°C
Maximum Shock	2000 g pk	19,600 m/s² pk
Electrical		
Output Polarity (positive pressure)	Positive	Positive
Excitation Voltage	11 to 30 VDC	11 to 30 VDC
Excitation Constant Current	2 to 20 mA	2 to 20 mA
Output Impedance	≤ 100 ohm	≤ 100 ohm
Output Bias Voltage	3 to 8 VDC	3 to 8 VDC
Mechanical		
Size (diaphragm diameter × overall length) 106C10 106C20	 0.435 × 7.58 in 0.435 × 13.25 in	 11.05 × 192.5 mm 11.05 × 336.5 mm
Weight 106C10 106C20	6.6 oz 8.2 oz	187 gm 232 gm
Installation Thread (of supplied adaptor)	1/2-14 NPT	1/2-14 NPT
Sensing Element	Quartz	Quartz
Material (of wetted parts)	316L SS	316L SS
Sealing (welded)	Hermetic	Hermetic
Electrical Connector	2-pin MIL-C-5015	2-pin MIL-C-5015

CE **These products conform to applicable European Directives for CE marking.**



Models 106C10 and **106C20**
Dynamic ICP Pressure Sensors
Dimensions are in inches (mm)

PCB PIEZOTRONICS INC.
A PCB GROUP COMPANY

3425 Walden Avenue, Depew, NY 14043-2495 USA
Pressure Division toll-free 888-684-0011
24-hour SensorLine℠ 716-684-000
Fax 716-686-9129 **E-mail** pressure@pcb.com
Web site www.pcb.com

ISO 9001 CERTIFIED A2LA ACCREDITED to ISO 17025

PRS-106C10_106C20-0603 Printed in U.S.A.

The Pressure Division of PCB® Piezotronics, Inc. specializes in the development, application, and support of piezoelectric and thin film pressure sensors, transducers, and transmitters for dynamic and static pressure measurement, test, monitoring, and control requirements. This product focus, coupled with the strengths and resources of PCB, permits the Pressure Division to offer timely response to client's needs, exceptional customer service, 24-hour technical assistance, and a **Total Customer Satisfaction** guarantee.

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