PCB PIEZOTRONICS
MTS SYSTEMS CORPORATION

MODEL **410C01**

DIN RAIL MOUNT ICP® SIGNAL CONDITIONER

- Delivers excitation power for ICP® sensors
- Provides peak track hold and waveform analog output signals, 0 to 10 volts
- Offers AC or DC signal coupling and choice of 7 gain settings

TYPICAL APPLICATIONS

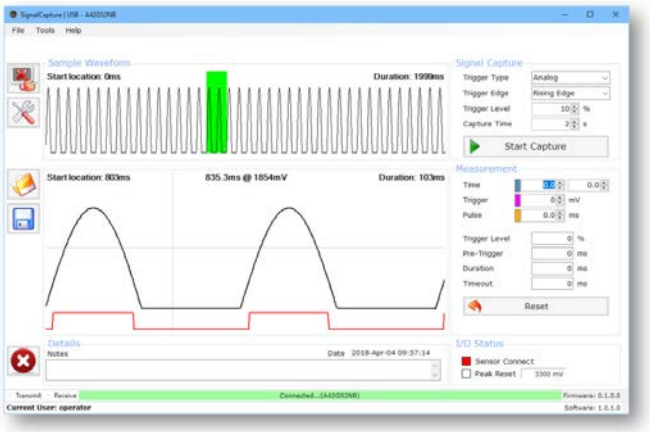
- Real Time Process Monitoring with ICP® Sensors
- Analog waveform output can be mapped against a signature or standard “pulse” with set tolerances
- Captures the dynamic +peak pulse of every machine cycle for trend analysis

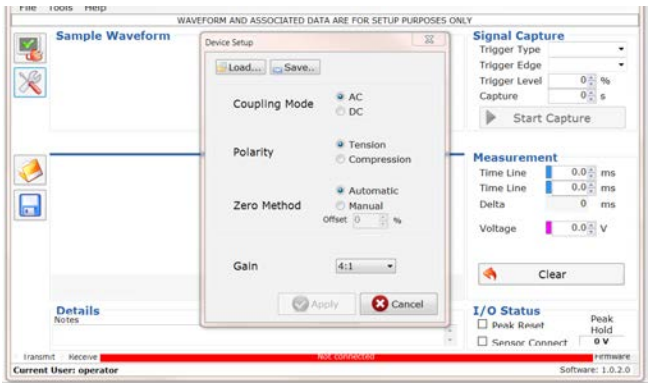
The Model 410C01 signal conditioner from PCB Piezotronics is designed for operation with Integrated Circuit Piezoelectric (ICP®) sensors and is ideally suited for monitoring manufacturing processes associated with assembly and product testing. With a choice of AC or DC coupling and a high frequency response, both quasi-static and dynamic measurements up to 10 kHz are possible. The unit synchronizes with machine cycles through a reset feature while analog and peak hold outputs allow for real-time monitoring with machine control devices. Requires a regulated low noise 24-volt power source for proper operation.

410C01 SOFTWARE & USE

The 410C01 includes our downloadable Signal Capture software allowing the end user to view a sample waveform, ensuring proper sensor operation with respect to the intended response. Collected sample waveforms may be saved for future reference.

The software also serves as a portal for instrument configuration. Selectable features include coupling mode, signal polarity, zero, and gain. Indicators for sensor connect and peak reset are provided for reference purposes.





SOFTWARE FEATURES

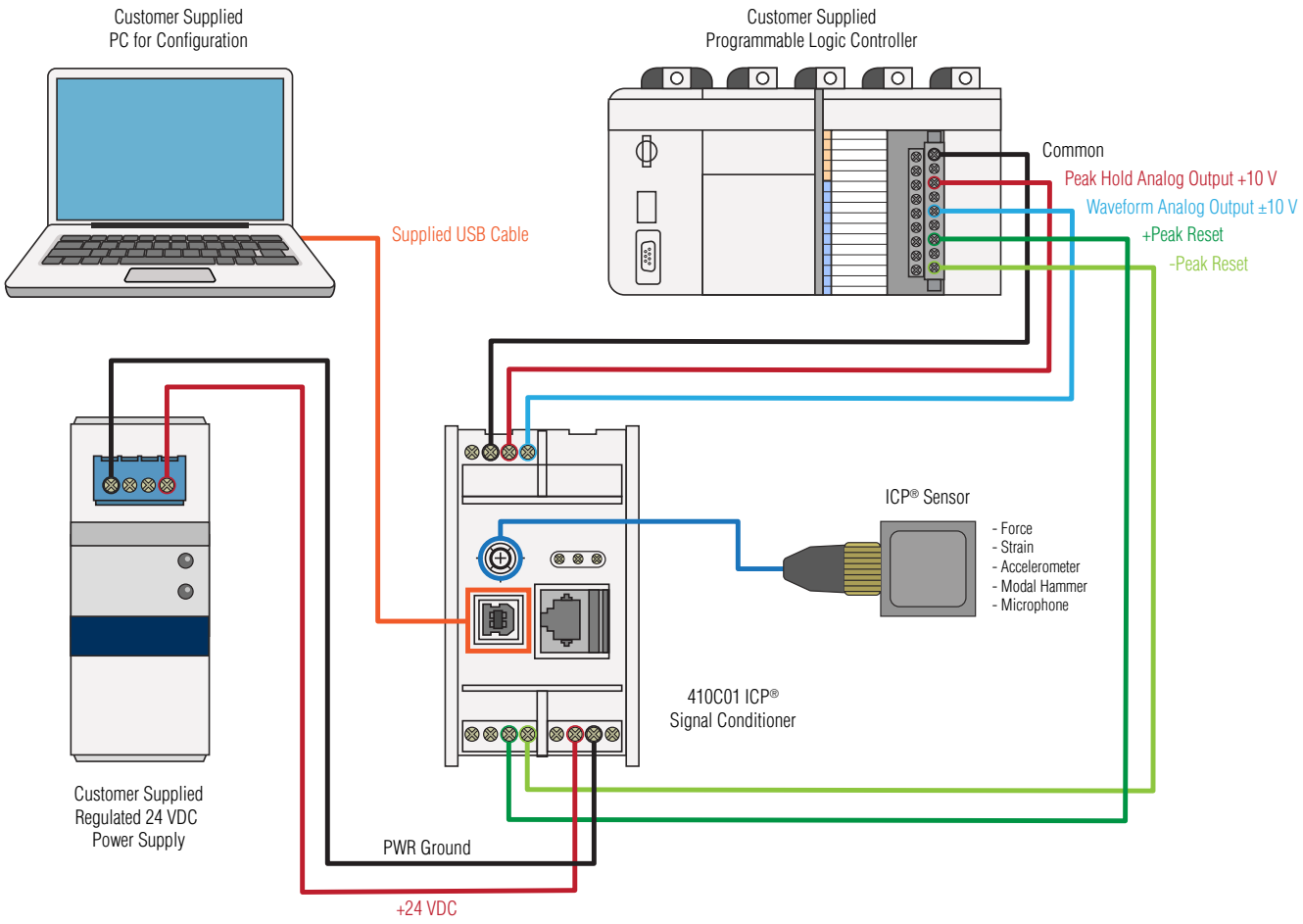
- Integrated User's Guide
- Captures up to 30 Seconds of Time Waveform Data
- Pulse-width and Amplitude Measurable with Scope Tool

IN THE BOX

- 410C01 Module
- USB Cable, Type A to Type B
- Operating Manual
- Quickstart Guide

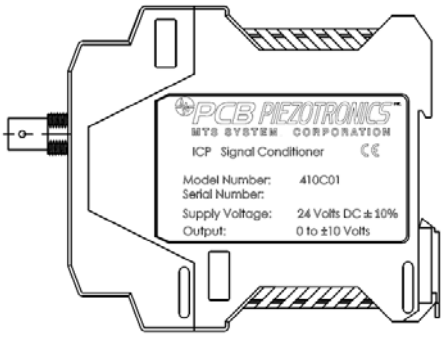
DOWNLOAD SOFTWARE
www.pcb.com/410C01 >

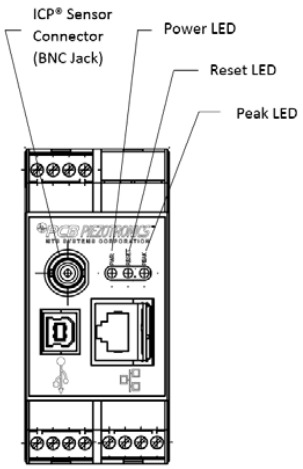
TYPICAL SYSTEM WIRING DIAGRAM



SPECIFICATIONS

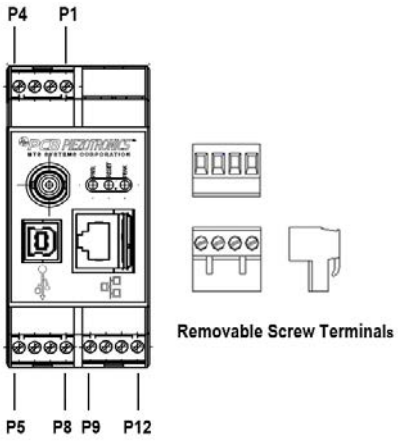
Model Number	410C01
Performance	**English (SI)**
Channels	1
Output Voltage (Instantaneous)	±10 V
Output Voltage (Peak)	0 to 10 V
High Frequency Response	10 kHz
Low Frequency Response, AC coupled (-5%)	0.5 Hz
Low Frequency Response, DC coupled	Governed by Sensor DTC
Voltage Gain (Incremental Steps)	x1, x2, x4, x8, x10, x16, x20
Environmental	
Temperature Range (Operating)	+60 to +110 °F (+15 to +45 °C)
Electrical	
Power Required (±10%)	24 VDC
Current Draw	200 mA
Broadband Electrical Noise (1 Hz to 10 kHz)	200 µV rms
Peak Hold Reset	Solid State Ready
Discharge Time Constant (AC coupled)	1 sec
Physical	
Size (Length x Height x Width)	4.46 x 3.9 x 1.78 in (113 x 99 x 45 mm)
Mounting	35 mm DIN Rail
Electrical Connector (Sensor Input)	BNC Jack
Electrical Connector (Analog Output, Peak Output, Power, Ground)	Removable Screw Terminals





PIN DESCRIPTIONS

DC Power - Pins 9 to 12	
Pin 10	+24 VDC
Pin 11	Power Ground
Waveform Output - Pins 2 & 3	
Pin 2	Waveform Out
Pin 3	Analog Ground
Peak Hold Output - Pins 1 & 3	
Pin 1	Peak Hold Out
Pin 3	Analog Ground
Reset Input - Pins 7 & 8	
Pin 7	Reset -
Pin 8	Reset +



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