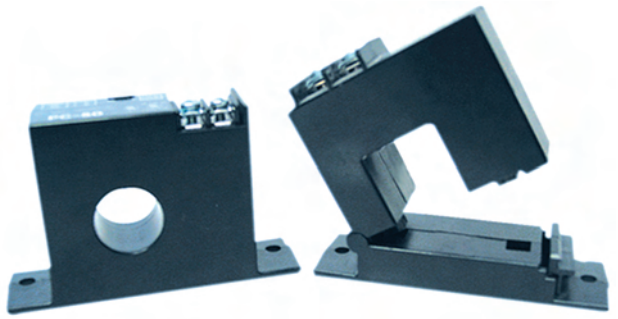
Model PC and PCS

AC Current Sensors

Current Sensors



Description

The PC/PCS Series current sensors accurately measure sinusoidal AC current and provide a 4-20 mA DC output proportional to the RMS value. They are loop powered requiring only a two wire connection. The PCS-50 and PCS-200 clamp over existing wiring for easy installation.

Features

- UL Listed • Loop Powered • Range Selected on Sensor
- Only Requires Two Wire Connection • Features Split Core for Easy Installation

Electrical Specifications

	Units	PC-50	PC-200	PCS-50	PCS-200
Current Range (1)	A AC rms	50	200	50	200
Output (2)	mA DC	4 to 20			
Frequency Range	Hz	20 to 100			
Supply Voltage (3)	VDC	5 to 40			
Accuracy	±% Full Scale (FS)	0.5			
Repeatability	±% FS	0.1			
Linearity	±% FS	0.1	0.1	0.3	0.3
Response time (Max.)	ms	300			
Ripple and Noise (Max.)	mV Peak to Peak	8			
Output Current Limit (4)	mA	40 Max.			
Internal Protection		Reverse voltage protection, High over-current capability			
Dielectric test (6)	kV	5			

General Information

Operating Temperature (5)	°C	-20 to +50			
Aperture Opening	inches(mm)	0.73 (18.5)	0.73 (18.5)	0.85 (21.6)	0.85 (21.6)
Weight	grams	92	92	121	121
Mounting		Panel mount via two #6 screws			
Package		ABS plastic case meets UL flammability rating 94V-0			

Notes:

1. Refer to Table 1 for choice of current ranges.
2. Refer to Table 2
3. Minimum voltage is 5 volts (for the sensor) plus voltage dropped across total load resistance when sensor is at 20 mA. Example: 20 mA will drop 16 volts across 800 ohms total load resistance. 16 volts plus 5 volts equals 21 volts minimum requirement.
4. Sensor self-limits output current to 40 mA maximum.
5. The UL approval is for an operating temperature range of -10°C to +40°C.
6. The dielectric test consists of 5.0 kVac 60 Hz for one minute between a bare 0.8 inch diameter conductor (located concentrically through the aperture) and the output of the sensor.
7. Due to continuous process improvement, all specifications are subject to change without notice.

SYPRIS TEST & MEASUREMENT
6120 Hanging Moss Road • Orlando, Florida 32807 • **www.fwbell.com**
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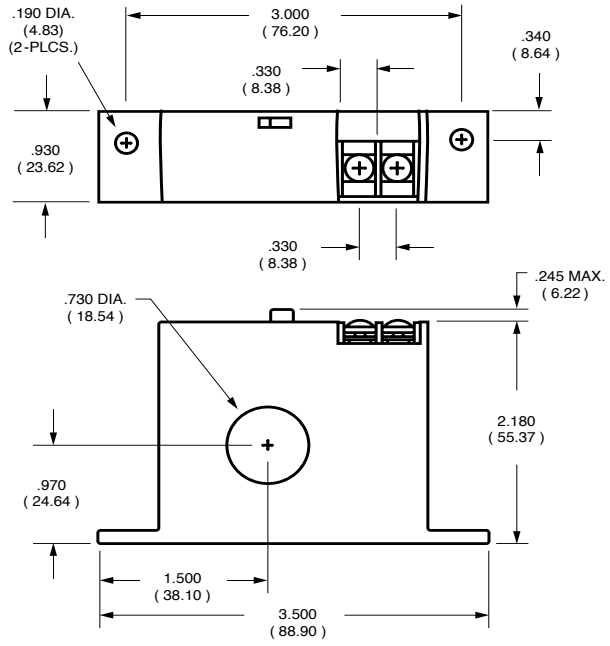
Rev. date 04/2003

Mechanical **Dimensions**

All dimensions are in inches (millimeters)

Models PC and PCS

PC



PCS

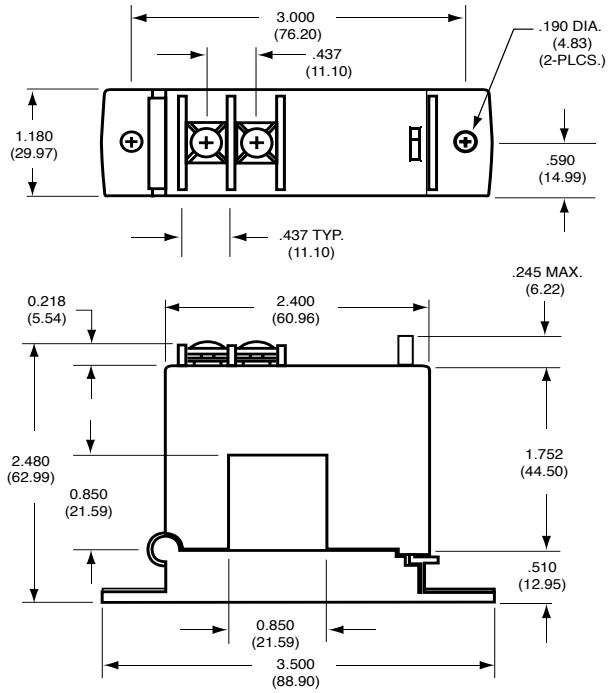
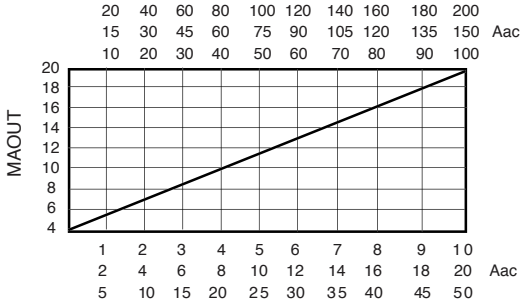


Table 1

Model	Range	Jumper	Maximum Continuous Currents
PC-50 PCS-50	0 to 10 Amps 0 to 20 Amps 0 to 50 Amps	None Mid High	80 Amps 110 Amps 175 Amps
PC-200 PCS-200	0 to 100 Amps 0 to 150 Amps 0 to 200 Amps	None Mid High	200 Amps 300 Amps 400 Amps

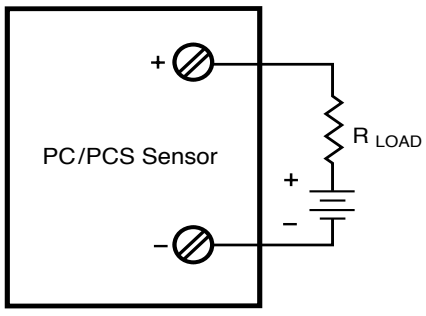
Table 2

PC-200 and PCS-200



PC-50 and PCS-50

Connection Schematic



Connection to sensor is made via two 6-32 screw terminals

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