



# CONTROL CONCEPTS

# 5020

## Signal Conditioner

### Description

The model 5020 signal conditioner consists of a printed circuit board which may be mounted on the output terminals of a current transformer. The circuit card produces a DC voltage which is proportional to the average value of the AC current passing through the window of the current transformer.

The circuit is specifically intended as an inexpensive means to monitor currents controlled by zero-cross SCR power controllers where the desired load power is maintained by cycling the power ON and OFF. The circuit can also be used to monitor sinusoidal currents and currents controlled by phase-angle SCR controllers where current occurs for a part or all of each electrical half-cycle.

The circuit is provided with a potentiometer to adjust the output voltage (span) of the circuit and a potentiometer to adjust the amount of filtering or response time of the circuit. The filter can be adjusted to provide a response time from approximately 0.2 seconds to 6.6 seconds. Increasing the filter reduces the ripple or variations on the output voltage and thereby provides a more constant output. Increasing the filter also reduces the rate at which the output changes due to a change in the measured current.

### How to Order

#### 5020-(INPUT)-(OUTPUT)

**5020** specifies a current to voltage signal conditioner.

The **(INPUT)** term in the model number specifies the input current range (from the terminals of the current transformer).

Max. input = 50mA, Zero-cross  
or 100mA, Phase-angle.

The **(OUTPUT)** term in the model number specifies the output voltage range for the specified input range.

For example a **5020-0/50mA-0/5Vdc** would specify that an output voltage of 0 to 5 volts would be proportional to an input current of: 0 to 50mA.

### Manufactured by



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800.765.2799 | [www.ccipower.com](http://www.ccipower.com)  
Phone: 952.474.6200 Fax: 952.474.6070  
7870 Park Drive, Chanhassen, MN 55317, U.S.A.



### Dimensions

