



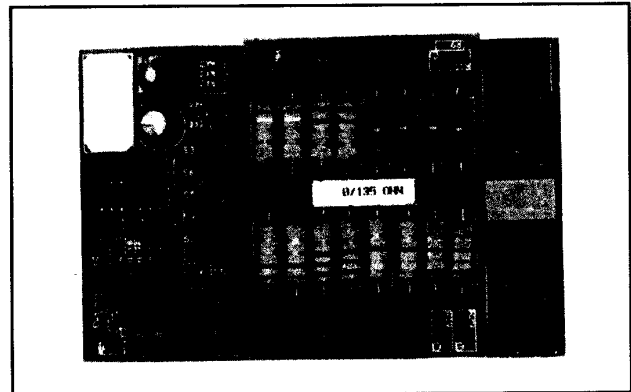
**PULSE WIDTH MODULATED INPUT TO PROPORTIONAL RESISTIVE OUTPUT  
MODEL PR12**

**FEATURES:**

- \* Electrically Isolated Resistive Output
- \* Pulse Width Modulated Input
- \* Field Selectable Clock Ranges
- \* Removable Resistor Module
- \* Failsafe To Original Control
- \* 250 Step Output Resolution
- \* Status Indicators
- \* Compact and Economical
- \* Snap Track Mounted

**APPLICATIONS:**

- \* Electric Actuator Control
- \* Electronic Potentiometer
- \* Resistive Sensor Simulation
- \* Remote Volume Control



**DESCRIPTION:**

The PR12 is an electronic device that allows microprocessor control of a variable resistance. The PR12 isolated resistor network is controlled by a pulse width modulated input signal. It directly replaces a variable resistive controller and simulates the action of a slide wire or rotary potentiometer. All connections of the simulated potentiometer, the wiper and both ends of the resistance range, are available on the PR12 terminal strip.

The PR12 has on-board failback relays that lock out the original resistive controller during PR12 operation. However, if the PR12 power supply is lost or if the resistor network is removed, control of the circuit will revert back to the original controller or user installed shunt, switched or fixed resistor. This feature allows remote hand and system overrides. There are LED indicators for the power, input signal, and clock operation.

The PR12 accepts a single pulse width modulated input signal of either positive or common polarity. Three pulse width ranges are user selectable: .02 to 5 seconds, .1 to 25 seconds or 1 to 250 seconds in duration. After the input signal is interpreted, the PR12 will then select a binary sequence of resistors that is proportional to the input signal. The removable resistor network is available in standard resistance ranges. Custom resistive ranges are also available upon request.

**ORDERING INFORMATION**

Specify: \* PR12- /

\* If you need a resistance range that cannot be met by one of the Resistor Networks at the end of the Specification section, you must also supply wattage and tolerance of the RN. Please specify with 1/4 watt 1% or 1/2 watt 5% resistances if possible. Wattages and tolerances other than those described in the Specification section may increase cost and lead times.





**SPECIFICATIONS**

**Electrical Requirements**

**Power Supply**

Supply Voltage Regulated 24 VDC +/- 10%, < 0.2 volts ripple

Supply Current 350mA max

**Input**

Trigger Level Dry contact to board common

Time Between Trigger Pulses 100 milliseconds min

Pulse Duration/Resolution Three selectable ranges:  
 In seconds of dry contact or SSR closure +/- 40% of input signal increment.  
 0.02 to 5 seconds/in 0.02 (+/-0.008) second increments  
 0.1 to 25 seconds/in 0.1 (+/-0.04) second increments  
 1 to 250 seconds/in 1 (+/-0.4) second increments

**Output**

Resolution 250 steps

**Mechanical Requirements**

**Relay Contacts**

Type Form C, Gold-clad Silver

Rating 2 amp max. resistive @ 24 volts

Electrical Life 100,000 operations

Mechanical Life 10 million operations

**Connections**

Wire size Up to one 14 gauge max.

Terminal Type Captive screw, moving clamp design in nickel plated copper alloy

**Dimensions**

Weight 6.5" L x 3.25" W x 2.3" H

7.1 oz

Mounting Furnished with 6.5" length of 3.25" wide snap track

**Environmental Requirements**

Operating Temperature -20 to 150 deg F

Operating Humidity 10% to 95% non-condensing

**REMOVABLE RESISTOR NETWORKS**

Output Signals (standard)		
RN- 0/135-3 watts (+/- 5%)	RN-0/1500-1/4 watt (+/- 2%)	RN-0/5K-1/4 watt (+/- 2%)
RN-0/270-1/4 watt (+/- 2%)	RN-0/2K- 1/4 watt (+/- 2%)	RN-0/10K-1/4 watt (+/- 2%)
RN-0/500-1/4 watt (+/- 2%)	RN-0/3K-1/4 watt (+/- 2%)	RN-0/20K-1/4 watt (+/- 2%)
RN-0/1000-1/4 watt (+/- 2%)	RN-0/4K-1/4 watt (+/- 2%)	RN-0/40K-1/4 watt (+/- 2%)

**Call for other Ranges, Inputs, and Wattages**

