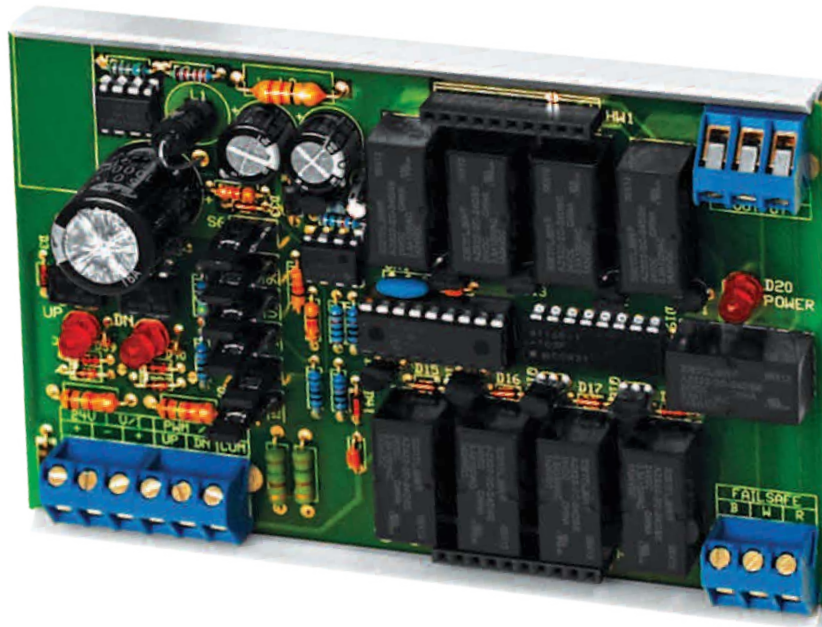


## DRN3.1



Input

Analog, Floating Point, Pulse

Output

Resistive

The DRN3.1 is an interface that allows microprocessor control of a variable resistance. The DRN3.1's isolated resistor network can be controlled by several different DDC signal types. It directly replaces a variable resistance 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 terminal strip. The DRN3.1 accepts Analog, Pulse, or Floating Point input signals (including triac) and converts them into a proportional resistive output. The output resistance does not wrap around if the input signal exceeds the highest or lowest selected input value. The DRN3.1 has on-board fail-back relays that lock out the original resistive signal during operation. However, if the supply power is lost, control of the circuit will revert back to the original controller signal. An easy local override can be made by placing a fixed (or variable) resistor between W and R Fail-safe terminals.

**SPECIFICATIONS**

<b>Supply Voltage</b>	24 VAC +/- 10%, 24 VDC +25%/-8%	
<b>Supply Current</b>	250 mA maximum	
<b>Input Source</b>	Relay Contact Closure/Transistor/Triac	
<b>Input Trigger Level</b>	4.5-30 VDC/10-26.4 VAC	
<b>Pulse Ranges (Standard)</b>	0.02 to 5 sec/0.02 sec increments, 0.1 to 25.5 sec/0.1 sec increments, or 0.59 to 2.93 sec/0.01 sec increments	
<b>Pulse Ranges (Version 2)</b>	0.1 to 10 sec or 0.023 to 6 sec	
<b>Pulse Ranges (Version 4)</b>	0-10 sec Duty Cycle Pulse (Sampled in a 10 second window)	
<b>Pulse Impedance</b>	750Ω nominal	
<b>Floating Point Rates of change</b>	Version 1: 30, 60, and 90 seconds	Version 2: 45, 120, and 240 seconds
<b>Floating Point Impedance</b>	750Ω nominal	
<b>Analog Ranges</b>	Voltage: 0-5, 1-5, 0-10, 2-10, 0-15 & 3-15 VDC	Current: 0-20 or 4-20 mA
<b>Analog Input Impedances</b>	Voltage: 10,000Ω Current: 250Ω	
<b>Output Resolution</b>	256 Steps (No wrap around)	
<b>Relay Contact Type</b>	Form C, Gold-clad silver	
<b>Rating</b>	2A maximum resistive @ 24V	
<b>Electrical Life</b>	100,000 operations @ 1A	
<b>Mechanical Life</b>	10 million operations	
<b>Operating Temperature</b>	32 to 120°F (0 to 48.9°C)	
<b>Operating Humidity</b>	10% to 95% non-condensing	
<b>Product Dimensions</b>	(L) 4.75" (W) 3.25" (H) 1.00"	

**ORDERING**

Please select DRN3.1 as an Interface Device (A). Choose a Resistance Network (1) if desired.

**A** Interface Device

**DRN3.1** (Pulse, Analog & Floating Point Input)

**1** Resistance Network

- RN (0-500)** (3W) (+/-5%)     **RN (0-1000)** (1/4W) (+/-5%)     **RN (0-4K)** (1/4W) (+/-5%)     **RN (0-40K)** (1/4W) (+/-5%)
- RN (0-100)** (3W) (+/-5%)     **RN (0-1500)** (1/4W) (+/-5%)     **RN (0-5K)** (1/4W) (+/-5%)     **RN (Specify)**
- RN (0-100K)** (1/4W) (+/-5%)     **RN (0-2K)** (1/4W) (+/-5%)     **RN (0-10K)** (1/4W) (+/-5%)
- RN (0-135)** (3W) (+/-5%)     **RN (0-3K)** (1/4W) (+/-5%)     **RN (0-20K)** (1/4W) (+/-5%)

**BUILD PART NUMBER**

After completing (A) from the above table, fill in the Part Number Table below. (1) is an Optional Accessory. An example part number is offered.

**A**

EXAMPLE: DRN3.1

**1**

EXAMPLE: RN (0-500)

