DRN3.1

Input: Analog, Floating Point, Pulse | Output: Resistive

Pulse, Analog & Floating Point Input to Resistance Output

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.

The DRN3.1 is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's web site, www.workaci.com.

Specifications

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

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

A															

EXAMPLE: DRN3.1

1															

EXAMPLE: RN (0-500)

RoHS COMPLIANT 2002/95/EC