

DRC-8900 Series DIN Rail Mount Signal Conditioners

\$210
Basic Unit



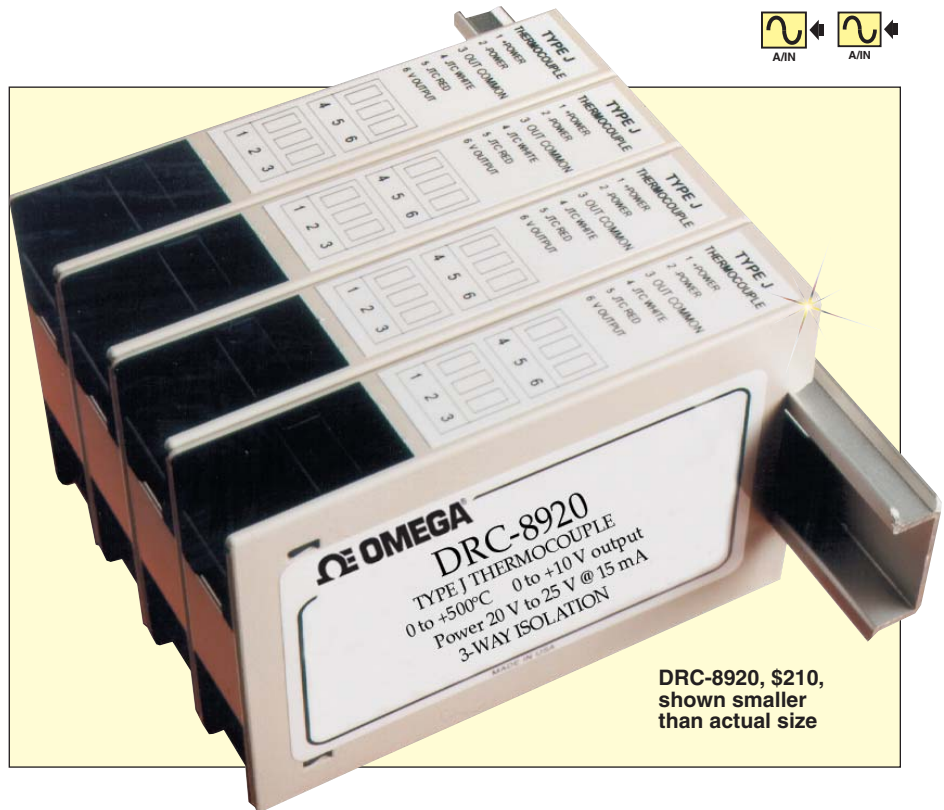
- ✓ Models Available for Thermocouples, RTD's, DC Voltage and Current Inputs
- ✓ Isolated and Linearized
- ✓ 24 Vdc Power
- ✓ 0 to 10 V or 4 to 20 mA Outputs
- ✓ Slim Housing Mounts on DIN Rail

The DRC-8900 Series DIN rail mount signal conditioners are ideal for a wide range of process monitoring applications. Models are available for a many different input types including thermocouples, RTDs, and process voltage or current. All models isolate and linearize. The thermocouple input models also have cold junction compensation. These signal conditioners have three way isolation—input to output, input to power and output to power. All models are powered by 24 Vdc and are housed in a plastic case with a built-in DIN rail mounting foot. Connections are made to easily accessible screw terminals.

Specifications

COMMON SPECIFICATIONS

Power: 22 to 26 Vdc (unregulated); 15 mA (models DRC-8920/21/40/41/42), 20 mA (models DRC-8901 through DRC-8908), 40 mA (models DRC-8911 through DRC-8918)



DRC-8920, \$210, shown smaller than actual size

Isolation: 700 Vdc (3-way; input to output, input to power, output to power)
Operating Ambient: 0 to 55°C (32 to 131°F)
Storage Temperature: -40 to 80°C (-40 to 176°F)
Dimensions: 110 H x 22.5 W x 75 mm D (4.33 x 0.895 x 2.95")
Weight: 142 g (5 oz)

THERMOCOUPLE INPUT MODELS

Temperature Range:
DRC-8920 (Type J): 0 to 500°C (32 to 932°F)
DRC-8921 (Type K): 0 to 1250°C (32 to 2282°F)

Output: 0 to 10 V into 5 K Ω minimum resistive load
Linearization: $\pm 2^\circ\text{C}$ (does not include thermocouple error)

Cold Junction Compensation: $\pm 1.5^\circ\text{C}$ at 25°C ambient, $\pm 0.05^\circ\text{C}/^\circ\text{C}$ from 2 to 55 °C ambient
Temperature Coefficient: zero, 0.02°C/°C; reading, 0.015°C/°C
Response Time: 1.5 sec

VOLTAGE/CURRENT INPUT MODELS

INPUT
Input Resistance:
 Voltage input: 1 M Ω
 Current input: 50 Ω
Linearity: $\pm 0.02\%$ of fs
Accuracy: $\pm 0.1\%$ of fs
Maximum Input: Voltage input models, 130 VRMS; current input models, 65 mA (3.25 volts across 50 Ω input resistance)

OUTPUT

Response Time: 10 ms (10 to 90%)
Ripple and Noise: 0.05% of fs



DRC-8920, \$210, shown smaller than actual size



MOST POPULAR MODELS HIGHLIGHTED

Load: 0 to 500 Ω

Open Circuit Voltage: 13 V

Temperature Coefficient: zero, ± 0.5 mV/ $^{\circ}\text{C}$ (0 to 10 V output models), ± 0.5 microamp/ $^{\circ}\text{C}$ (4 to 20 mA output models); full scale, ± 100 ppm/ $^{\circ}\text{C}$ typical

ISOLATION

Isolation: 700 Vdc (3-way)

Power to Input or Output: 15 pF

Input to Output: 750 pF

60 Hz CMRR: 85 db

RTD INPUT MODELS

INPUT

Input Type: Pt RTD, alpha = 0.00385, 2 or 3 wire; DRC-8940, 100 Ω ; DRC-8941, 500 Ω ; DRC-8942, 1000 Ω

Temperature Range:

-50 to 450 $^{\circ}\text{C}$ (-58 to 842 $^{\circ}\text{F}$)

OUTPUT

Output:

0 to 10 V into 5 K Ω minimum resistive load

Temperature Coefficient:

Zero, 0.02 $^{\circ}\text{C}/^{\circ}\text{C}$ typical; reading. 0.015 $^{\circ}\text{C}/^{\circ}\text{C}$ typical

Linearization:

$\pm 0.7^{\circ}\text{C}$ maximum (does not include RTD error)

3-Wire Compensation:

0.01 $^{\circ}\text{C}/\Omega$ – 3 wires equal R, up to 10 Ω , typical

Response Time: 1.5 sec

To Order (Specify Model Number)

Model No.	Price	Input Range	Output Range
Voltage/Current Input Models			
DRC-8901	\$210	0 to 50 mV	0 to 10 V
DRC-8902	210	0 to 100 mV	0 to 10 V
DRC-8903	210	0 to 5 V	0 to 10 V
DRC-8904	210	0 to 10 V	0 to 10 V
DRC-8905	210	0 to 100 V	0 to 10 V
DRC-8906	210	4 to 20 mA	0 to 10 V
DRC-8907	210	0 to 20 mA	0 to 10 V
DRC-8908	210	0 to 50 mA	0 to 10 V
DRC-8911	210	0 to 50 mV	4 to 20 mA
DRC-8912	210	0 to 100 mV	4 to 20 mA
DRC-8913	210	0 to 5 V	4 to 20 mA
DRC-8914	210	0 to 10 V	4 to 20 mA
DRC-8915	210	0 to 100 V	4 to 20 mA
DRC-8916	210	4 to 20 mA	4 to 20 mA
DRC-8917	210	0 to 20 mA	4 to 20 mA
DRC-8918	210	0 to 50 mA	4 to 20 mA
Thermocouple Input Models			
DRC-8920	\$210	Type J	0 to 10 V
DRC-8921	210	Type K	0 to 10 V
RTD Input Models			
DRC-8940	\$210	100 Ohm	0 to 10 V
DRC-8941	210	500 Ohm	0 to 10 V
DRC-8942	210	1000 Ohm	0 to 10 V

Accessories

Model No.	Price	Description
iDRN-PS-1000	\$150	DIN rail mount power supply, 95 to 240 Vac input, 24 Vdc output @ 1A
RAIL-35-1	10	35 mm (1.4") DIN rail, 1 m (3.3') length
RAIL-35-2	15	35 mm (1.4") DIN rail, 2 m (6.6') length

All models are supplied with complete operator's manual.

Ordering Example: DRC-8906 DIN rail mount signal conditioner, 4 to 20 mA input, 0 to 10 V output, iDRN-PS-1000 power supply, RAIL-35-2 mounting rail, and OMEGACARESM 1-year extended warranty for DRC-8906 (adds 1 year to standard 1-year warranty), \$210 + 150 + 15 + 25 = \$400.



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