

## Isolated DIN Rail Signal Conditioner

### DRSL-DC2



DRSL-DC2 DIN rail signal conditioner and DRSL-PWR-RAIL, power rail (sold separately). Shown smaller than actual size.

- ✓ Isolation and Conversion of Process Voltage or Current Signals
- ✓ Power Supply and Signal Isolator for 2-Wire Transmitter
- ✓ Slimline Housing—Only 6 mm (0.24") Wide
- ✓ Multiple Signal Ranges (DIP-Switch Selectable)
- ✓ High Accuracy, <0.05% of Span
- ✓ Fast Response Time <7 ms

The DRSL-DC2 isolated DIN rail signal conditioner provides a competitive choice in terms of both price and technology for galvanic isolation of process voltage or current signals to SCADA systems or PLC equipment. The DRSL-DC2 can be used for signal conversion of standard process voltage or current signals. The unit offers isolation between input, output and supply, provides surge suppression and protects control systems from transients and noise.

The DRSL-DC2 also eliminates ground loops and can be used for measuring floating signals. Low power consumption facilitates DIN rail mounting without the need for any air gap. Factory calibrated measurement ranges are easily configured via DIP switches. When the input is configured for 2-wire transmitter mode, the DRSL-DC2 provides the current loop supply voltage. The unit operates over a wide temperature range from -25 to 70°C (-13 to 158°F).

## SPECIFICATIONS

### INPUT

#### Current Input

**Measurement Range:** 0 to 20.5 mA  
**Functional Range:** 0 to 23 mA  
**Programmable Measurement Ranges:** 0 to 20 mA and 4 to 20 mA  
**Input Voltage Drop:** <1.5V  
**2-Wire Transmitter Supply:** >17V/20 mA

#### Voltage Input

**Measurement Range:** 0 to 10.25V  
**Functional Range:** 0 to 11.5V/ 0 to 5.75V  
**Programmable Measurement Ranges:** 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V  
**Input Resistance:** ≥500 kΩ

### OUTPUT

#### Current Output

**Signal Range:** 0 to 20.5 mA (span)  
**Programmable Signal Ranges:** 0 to 20 mA and 4 to 20 mA  
**Load:** 23 mA/600 Ω max  
**Load Stability:** ≤0.01% of span/100 Ω  
**Current Limit:** ≤28 mA

#### Voltage Output

**Signal Range:** 0 to 10V  
**Programmable Signal Ranges:** 0 to 10, 2 to 10, 0 to 5 and 1 to 5V  
**Load:** >10 kΩ min

## GENERAL

**Supply Voltage (via Power Rail or Connectors):** 16.8 to 31.2 Vdc

**Power Consumption:** 1.2 W max

**Internal Consumption:** 0.4 W typical/0.65 W max

**Isolation:** Input/output/supply

**Isolation Voltage (Test):** 2.5 kVac

**Isolation Voltage (Working):** 300 Vac

**MTBF:** >231 years, according to IEC 61709 (SN29500)

**Signal/Noise Ratio:** >60 dB

**Response Time (0 to 90%, 100 to 10%):** <7 ms

**Span:** Corresponds to the presently selected DIP switch output range

**Accuracy:** ≤±0.05% of span

**Temperature Coefficient:** ≤±0.01% of span/°C

**EMC Immunity Influence:** ≤±0.5% of span

#### Extended EMC Immunity

**NAMUR NE 21, A Criterion, Burst:** ≤±1% of span

## ENVIRONMENTAL

**Operating Temperature:** -25 to 70°C (-13 to 158°F)

**Storage Temperature:** -40 to 85°C (-40 to 185°F)

**Calibration Temperature:** 20 to 28°C (68 to 82°F)

**Relative Humidity:** 0 to 95% RH non-condensing

**Protection Degree:** IP20

**Installation Area:** Pollution degree 2 and measurement/overvoltage category II

## MECHANICAL

**Dimensions:** 113 H x 6.1 W x 115 mm D (4.4 x 0.24 x 4.5")

**Weight:** 70 g (0.15 lb) approx

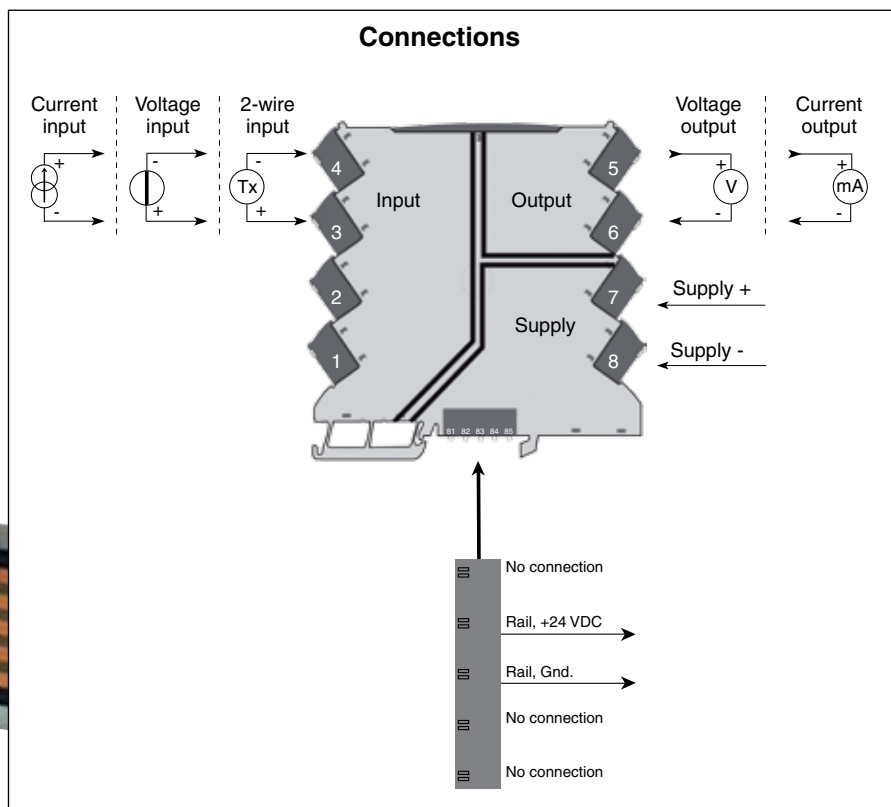
**DIN Rail Type:** DIN EN 60715 - 35 mm

**Wire Size:** 0.13 x 2.5 mm<sup>2</sup>/AWG  
26 to 12 stranded wire

**Screw Terminal Torque:** 0.5 Nm



DRSL-DC2 and  
DRSL-PWR-RAIL  
shown smaller  
than actual size.



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

## To Order

| Model No. | Description                          |
|-----------|--------------------------------------|
| DRSL-DC2  | Isolated DIN rail signal conditioner |

## Accessories

| Model No.     | Description                                                                                     |
|---------------|-------------------------------------------------------------------------------------------------|
| DRSL-PWR-RAIL | Power rail (with cover and two end covers, one right hand and one left hand), 1 m (3.3') length |
| DRSL-PCU      | Power connector unit, 24 Vdc/2.5 A output to power rail                                         |
| DRSL-MOD-STOP | Module stop (screwed onto power rail to support and hold mounted devices)                       |

**Ordering Example:** DRSL-DC2 isolated DIN rail signal conditioner, DRSL-PWR-RAIL power rail, DRSL-PCU power connector unit, DRSL-MOD-STOP module stop and OCW-1, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 2 years.