

## 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:  $\geq 500 \text{ k}\Omega$

#### 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  $\Omega$  max
- Load Stability:  $\leq 0.01\%$  of span/100  $\Omega$
- Current Limit:  $\leq 28 \text{ mA}$

##### 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 k $\Omega$  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:  $\leq \pm 0.05\%$  of span

Temperature Coefficient:  $\leq \pm 0.01\%$  of span/°C

EMC Immunity Influence:  $\leq \pm 0.5\%$  of span

Extended EMC Immunity

NAMUR NE 21, A Criterion, Burst:  $\leq \pm 1\%$  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

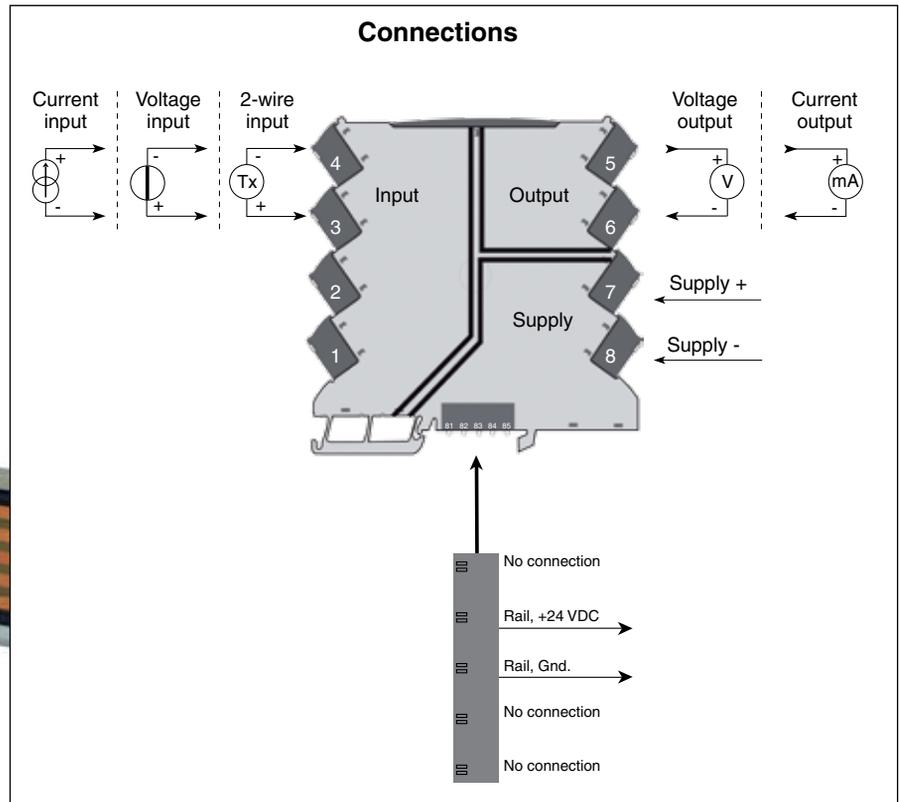
**Dimensions:** 113 H x 6.1 W x 115 mm D (4.4 x 0.24 x 4.5")

**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



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## 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)