

Isolated DIN Rail Repeater

DRSL-DC1



- ✓ Isolation and 1:1 Conversion of Current Signals
- ✓ 1 Current Input—1 Current Output
- ✓ Slimline Housing—Only 6 mm (0.24") Wide
- ✓ Fast Response Time <7 ms
- ✓ High Accuracy, <0.05% of Span
- ✓ Easy-to-Use—No Setup Needed

The DRSL-DC1 isolated repeater provides a competitive choice in terms of both price and technology for galvanic isolation of current signals to SCADA systems or PLC equipment. The unit provides isolation and 1:1 conversion of standard current signals.

The unit offers isolation between input, output and supply. Provides surge suppression and protects control systems from transients and noise. The DRSL-DC1 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. Measurement ranges are factory calibrated. The unit operates over a wide temperature range from -25 to 70°C (-13 to 158°F).

SPECIFICATIONS

CURRENT INPUT

Measurement Range:

0 to 20.5 mA

Functional Range: 0 to 23 mA

Input Voltage Drop: <1.5 Vdc

CURRENT OUTPUT

Signal Range: 0 to 20.5 mA (span)

Load: 23 mA/600 Ω max

Load Stability: ≤0.01 % of span/
100 Ω (span = 0 to 20 mA)

Current Limit: ≤28 mA

GENERAL

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

Power Consumption: 0.8 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: >284 years, according to IEC 61709 (SN29500)

Signal/Noise Ratio: >60 dB

Response Time

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

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



DRSL-DC1 DIN rail signal conditioner and DRSL-PWR-RAIL power rail (sold separately), shown smaller than actual size.

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

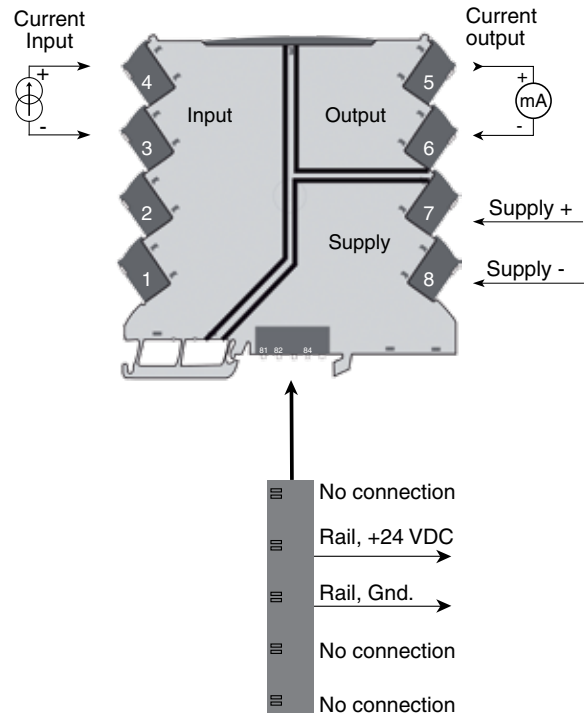
Wire Size: 0.13 x 2.5 mm²/AWG 26 to 12 stranded wire

Screw Terminal Torque: 0.5 Nm



DRSL-DC1 and
DRSL-PWR-RAIL
shown smaller
than actual size.

CONNECTIONS



To Order

| Model No. | Description |
|-----------|---------------------------------------|
| DRSL-DC1 | Isolated repeater for current signals |

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) |