

Isolated DIN Rail Signal Conditioner/Splitter for Process Signals

DRSL-SP2



- ✓ Isolation and Conversion of Process Voltage or Current Signals
- ✓ Splitter Function: 1 Process Input–2 Process Outputs
- ✓ 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



DRSL-SP2 and DRSL-PWR-RAIL (sold separately) shown actual size.

The DRSL-SP2 isolated signal conditioner/splitter 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. Two process outputs are provided which mirror the single process input.

The DRSL-SP2 can be used for signal conversion of standard process voltage or current signals into two individual analog signals. The unit offers 4-port isolation, provides surge suppression and protects control systems from transients and noise. The DRSL-SP2 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-SP2 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

No. of Outputs: 2

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/300 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 1/output 2/
supply

Isolation Voltage (Test): 2.5 kVac

Isolation Voltage (Working): 300 Vac

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")

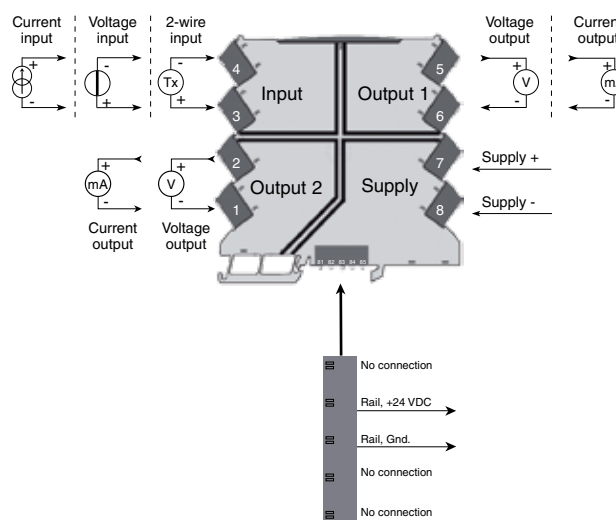
Weight: 70 g (0.15 lb) approx

DIN Rail Type: DIN EN 60715 - 35 mm

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

Screw Terminal Torque: 0.5 Nm

CONNECTIONS



DRSL-SP2 and DRSL-PWR-RAIL
(sold separately) shown smaller
than actual size.



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

To Order

Model No.	Description
DRSL-SP2	Isolated signal conditioner/splitter for process signals

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-SP2 isolated signal conditioner/splitter for process signals, DRSL-PWR-RAIL power rail, DRSL-PCU power connector unit, DRSL-MOD-STOP module stop and OCW-1, OMEGACARESM extends standard 1-year warranty to a total of 2 years.