

## DIN Rail Input Loop-Powered Isolators

### DRSL-LPI Series



- ✓ 1 Channel (DRSL-LPI-1) or 2 Channel (DRSL-LPI-2) Input Loop Powered Isolators
- ✓ Powered by the Analog Input Current Signal Loop
- ✓ 1:1 Signal Ratio
- ✓ Low Input Voltage Drop
- ✓ Fast Response Time <5 ms
- ✓ High Conversion Accuracy, <0.1% of Span (0 to 20.5 mA)
- ✓ Slimline 6 mm (0.24") Housing

The DRSL-LPI Series DIN rail input loop powered isolators provide a competitive choice in terms of both price and technology for galvanic isolation of current signals to SCADA systems or PLC equipment. These units provide isolation and 1:1 conversion of standard current signals and are powered by the analog input current signal loop.

The DRSL-LPI series offers isolation between input and output, provides surge suppression and protects control systems from transients and noise. These units also eliminate 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. These isolators operate over a wide temperature range from -25 to 70°C (-13 to 158°F).

### SPECIFICATIONS

#### NUMBER OF CHANNELS

DRSL-LPI-1: 1

DRSL-LPI-2: 2

#### CURRENT INPUT

**Signal Range (Input to Output):** 0 to 20.5 mA

**Signal Conversion:** 1 to 1

**Functional Range:** 0 to 23 mA (NAMUR NE43 compliant)

**Start up Current:** 10 µA typical

**Input Overload:** 50 mA max

**Input to Output Voltage Drop:** 1.25V + (0.015 x V<sub>out</sub>)

where V<sub>out</sub> = I<sub>out</sub> x R<sub>output</sub>, typical

**Input Voltage Drop:**

(Unit voltage drop) + V<sub>out</sub>



DRSL-LPI-1 and RAIL-35-1 (sold separately) shown actual size.

#### CURRENT OUTPUT

**Output Load:** 600Ω max

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

**Voltage Limit:** 17.5V

#### GENERAL

**Internal Consumption:** 30 mW per channel

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

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

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

**Cut-Off Frequency (3 dB):** 100 Hz

**Response Time (0 to 90%, 100 to 10%):** <5 ms

**Absolute Accuracy (at 25°C):** ≤±10 µA + 0.05% of max value of selected span

**Temperature Coefficient:** ≤±2 µA/°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

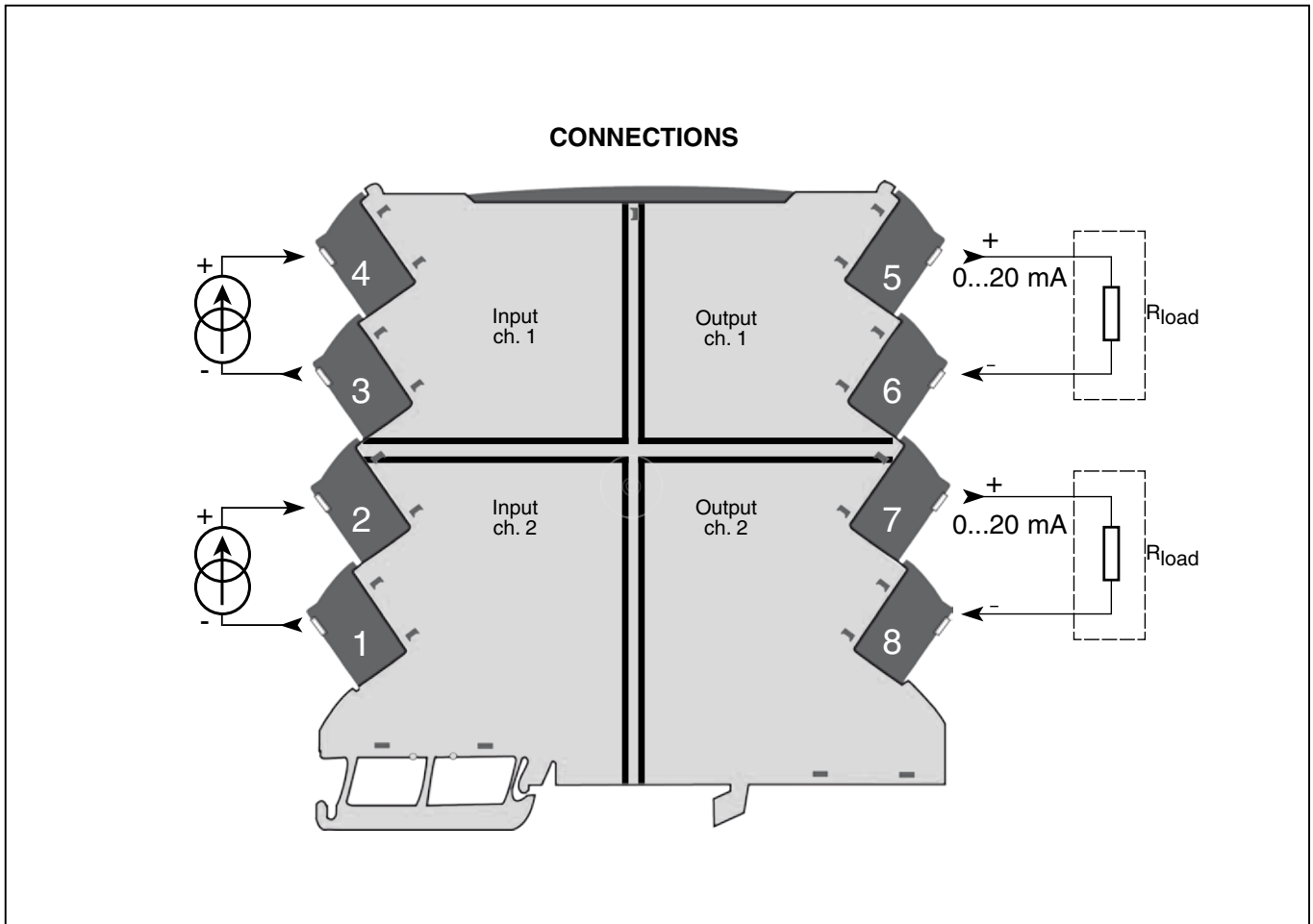
**Dimensions:** 113 H x 6.1 W x 115 mm D (4.4 x 0.24 x 4.5")

**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



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-LPI-1	DIN rail input loop-powered isolator, 1 channel
DRSL-LPI-2	DIN rail input loop-powered isolator, 2 channel
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
DRSL-MOD-STOP	Module stop (screwed onto DIN rail to support and hold mounted devices)

**Ordering Example:** DRSL-LPI-2 DIN rail input loop-powered isolator, 2 channel, RAIL-35-1 DIN rail, and OCW-1, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 2 years.