NEW

DC Current Signal Splitters

TRODEKS®

DRSP-I Series

MADE IN USA 5 YEAR WARRANTY

- One 4 to 20 mA Input to Two 4 to 20 mA Outputs with Full Isolation
- Zero and Span Adjustments for Each Output
- Full 1200 V Input/Output/ Power Isolation
- Input/Output Loop Status LEDs
- Output Test Button for Each Channel
- Built-In Loop Power Supplies for Sink/Source I/O
- Split, Convert, Boost, and Rescale Process Signals
- Split Process Signals for Control and Validation
- Interface a Process Signal with Multiple Panel Meters, PLCs, Recorders, Data Acquisition, DCS, and SCADA Systems

DRSP-I shown larger than actual size.

The DRSP-I Series DC current signal splitters accept one 4 to 20 mA current input and provide two optically isolated 4 to 20 mA current outputs that are linearly related to the 4 to 20 mA current input. This provides an economical solution when one signal must be sent to two different devices.

Typical applications include isolation, output splitting, output device separation and redundancy (i.e. to prevent failure of the entire loop if one device fails), or a combination of these.

The input signal is filtered, amplified, split, and then passed through an opto-coupler to the output stages. Full 4-way isolation (input, output 1, output 2, power) make this module useful for ground loop elimination, common mode signal rejection,and noise pickup reduction.

I/O Sink/Source Versatility

Standard on the DRSP-I are a 15 Vdc loop excitation supply for the input channel and 20 Vdc loop excitation supplies for each output channel. These power supplies can be selectively wired for sinking or sourcing allowing use with any combination of powered or unpowered milliamp I/O devices.

Loop Status LEDs

Exclusive features include three loop status LEDs (green for input, red for each output) that vary in intensity with changes in the process input and output signals.

These provide a quick visual picture of your process loop at all times and can greatly aid in saving time during initial startup and troubleshooting.

Output Test

Another exclusive feature includes output test buttons for each channel to provide a fixed output (independent of the input) when held depressed. A test button is provided for each output channel. The output test greatly aids in saving time during initial startup and/or troubleshooting.

The test output level for each channel is potentiometer adjustable from 0 to 100% of the output span. Terminals are provided to operate the test functions remotely for each channel. This also allows use as a remote manual override to provide a temporary fixed output if desired.

Specifications

INPUT

Input Range: 4 to 20 mA

Input Impedance: 50 Ω typical

Input Loop Power Supply: 15 Vdc ±10%, regulated, 25 mA; May be selectively wired for sinking or sourcing mA input

Loop Status LEDs: Variable brightness LEDs indicate I/O loop level and status; One for input, one for each output

OUTPUT

Output Range: (Output 1 and Output 2): 4 to 20 mA; 20V compliance, 1000 Ω at 20 mA

Output Linearity: Better than ±0.1% of span

Output Zero and Span: Multi-turn zero and span potentiometers for each output channel to compensate for load and lead variations; ±15% of span adjustment range typical

Output Loop Power Supplies: One for each output channel; 20 Vdc nominal, regulated, 25 mA may be selectively wired for sinking or sourcing mA output

Output Ripple and Noise: Less than 10 mVRMS

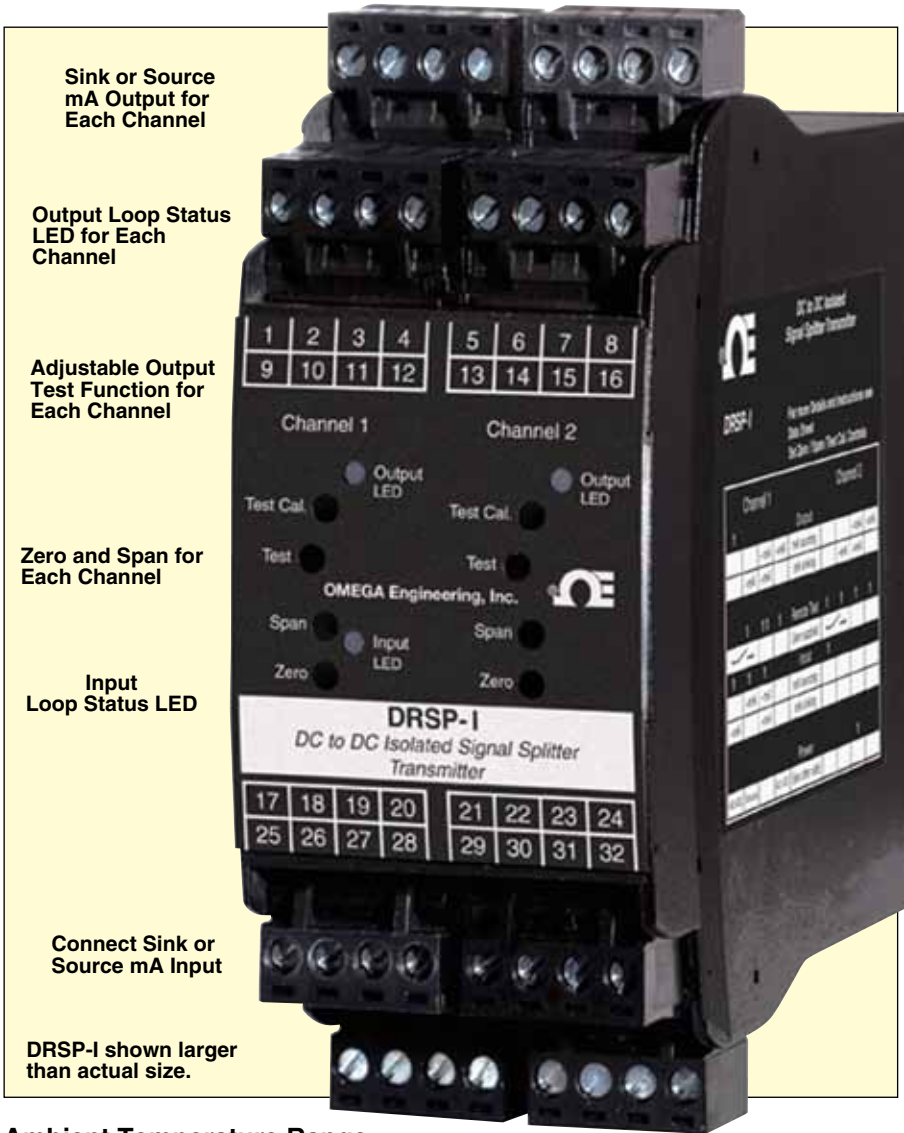
Output Functional Test: Front buttons set each output to test level when pressed; Each test level potentiometer adjustable 0 to 100% of span

GENERAL

Response Time: 70 milliseconds typical

Common Mode Rejection: 120 dB minimum

Isolation (Full 4-Way Isolation): input 1, output 1, output 2, power; 1200 VRMS minimum



Ambient Temperature Range: -10 to 60°C (14 to 140°F)

Stability: Better than ±0.04% of span per °C

Power:

DRSP-I: 60 to 265 Vac, 50/60 Hz or 85 to 300 Vdc, 6 W maximum

DRSP-I-DC: 9 to 30 Vdc or 10 to 32 Vac 50/60 Hz, 6 W maximum

Housing: IP40, mounts to standard 35 mm (1.37") DIN rail

Connectors: Eight 4-terminal removable connectors; 14 AWG maximum wire size

Dimensions: 45 W x 117 H x 122 mm D (1.78 x 4.62 x 4.81"); height includes connectors

To Order

Model No.	Description
DRSP-I	DC current signal splitter, 60 to 265 Vac, 50/60 Hz or 85 to 300 Vdc power
DRSP-I-DC	DC current signal splitter, 9 to 30 Vdc or 10 to 32 Vac, 50/60 Hz power
RAIL-35-1	35 mm DIN rail, 1 m (3.3') length
RAIL-35-2	35 mm DIN rail, 2 m (6.6') length
iDRN-PS-1000	Power supply (switching), 95 to 240 Vac input, 24 Vdc output at 850 mA

Comes complete with operator's manual.

***Ordering Example: DRSP-I** DC current signal splitter, 60 to 265 Vac, 50/60 Hz or 85 to 300 Vdc power*