

DR4300 **DC INPUT** **FIXED RANGE** **ISOLATED TRANSMITTER** **DIN RAIL MOUNT**



DESCRIPTION

The DR4300 provides an isolated DC voltage or current output proportional to a DC voltage or current input. The input and output are ranged at the factory, but Zero and Span controls provide $\pm 15\%$ adjustability.

The DR4300 provides 3 way isolation between input, output, and power source.

The isolation makes the product useful for measuring input signals with high common mode voltages and for breaking ground connections to eliminate ground loops. Its wide choice of inputs and outputs allow signal conversion and scaling as well.

The screw terminal blocks plug into the case, which allows easy wiring and removal of products.

All of the DR Series of products provide transient protection to help eliminate damage from lightning and from other transients created on the power and signal leads.

INSTALLATION

The DR Series of products mount on standard 35 mm DIN rails. Install by hooking the top of the case's latch onto the top of the DIN rail. Then push down on the case, letting it pivot on the DIN rail. The bottom slide of the mount will snap behind the rail and secure the product.

To remove, insert a screwdriver into the hole on the metal latch on the bottom of the case, and pull the latch down until it allows the front of the case to be lifted up.

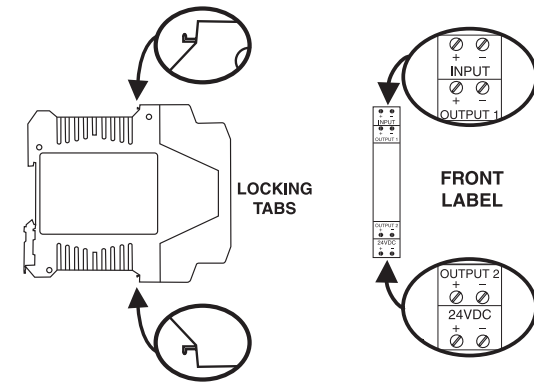
WARRANTY

The DR Series of products carry a limited 3 year warranty. In the event of a failure due to defective material or workmanship, the unit will be repaired or replaced at no charge.

CALIBRATION

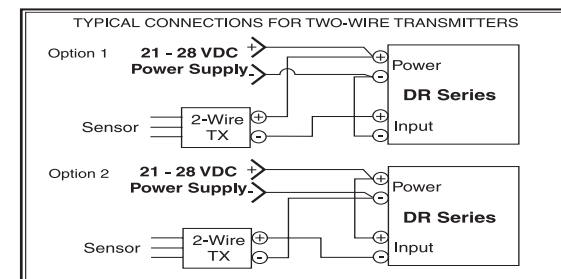
The DR4300 is factory calibrated to the input and output noted on the case side label. Terminal connections are shown on the front label. To make field adjustments to the product:

1. Remove the circuit board from the case by squeezing the 2 locking tabs (see diagram below) and pulling the case front, with the circuit board, out of the case.
2. Connect a calibrator to the input terminals.
3. Connect an accurate voltmeter or current meter to the output terminals.
4. Apply power to the unit.
5. Set the input for its zero scale and adjust the Zero control for zero scale output.
6. Set the input for its full scale and adjust the Span control for full scale output.
7. Repeat once or twice until no further adjustment is required.



TWO-WIRE TRANSMITTER WIRING

In installations where isolation between the power supply and the input terminals is not required, the DR Series power supply can also be used to power a Two-Wire Transmitter (see drawing below). If isolation is required, a separate power supply must be used to power the Two-Wire Transmitter.



SPECIFICATIONS

INPUT RANGE

Voltage

Select any range between
 $\pm 50 \text{ mV}$ to $\pm 256 \text{ V}$
 (Minimum span 50 mV)
 (Maximum span 256 V)

Current

Select any range between
 $\pm 1 \text{ mA}$ to $\pm 250 \text{ mA}$,
 internal shunt
 (Minimum span 1 mA)
 (Maximum span 250 mA)

INPUT IMPEDANCE

Voltage

400 kilohms

Current

Current Input Value	Input Shunt
1 mA	1000 OHM
10 mA	100 OHM
20 mA	50 OHM
4/20 mA	61.9 OHM
100 mA	10 OHM
250 mA	3.3 OHM

BANDWIDTH

-3db at 3 Hz

ISOLATION, OUTPUT/INPUT/POWER

>500 megohms
 1500 VAC rms

OUTPUT RANGE

Voltage

Select any range from
 -10 V to $+10 \text{ V}$, 5 mA max
 load (min span 1 V)

Current

Select any range from
 0 to 20 mA
 (min span 1 mA)
 Compliance > 20 V
 (Drive 1000 ohm at 20 mA)

OUTPUT RIPPLE (peak to peak)

<0.1% of span

ACCURACY

$\pm 0.1\%$ of span

LINEARITY

$\pm 0.05\%$ of span

COMMON MODE REJECTION

100 dB, DC to 60 Hz

OPERATING TEMPERATURE

14°F to 158°F/-10°C to 70°C

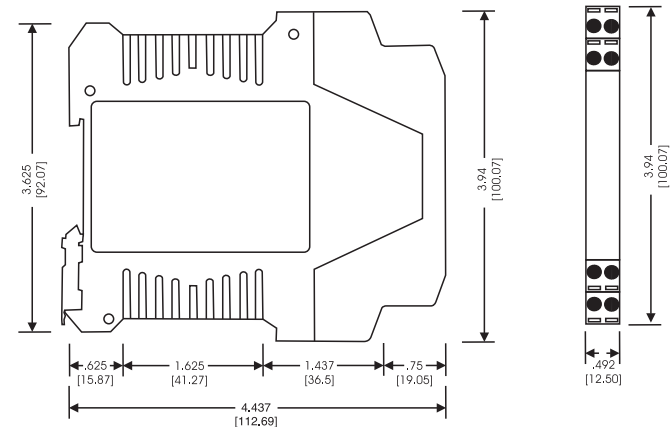
TEMPERATURE STABILITY

$\pm(0.01\% \text{ of span})/^{\circ}\text{C}$ max

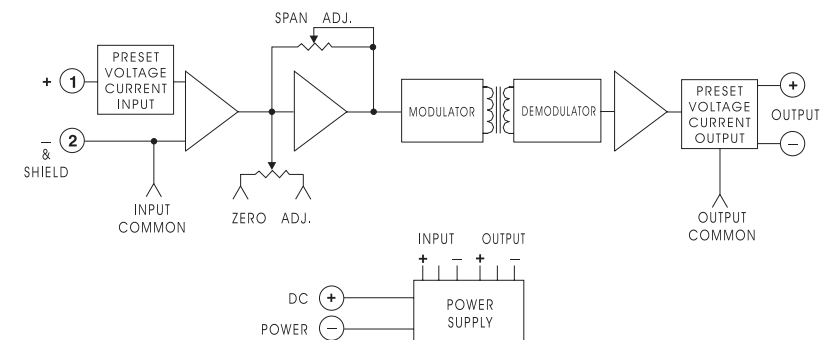
POWER

21 to 28 VDC, 50 mA max

CASE DIMENSIONS INCHES [mm]



BLOCK DIAGRAM AND PIN CONNECTIONS



Specifications Are Subject To Change Without Notice. © 2007 Wilkerson Instrument Co., Inc. DWG#W103758 3/07



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