

SIGNAL CONDITIONERS

Passive Loop Powered Isolator

DR910



- ✓ Loop Powered
- ✓ Isolated
- ✓ 0 to 20 mA and 4 to 20 mA Ranges
- ✓ DIN Rail Mountable

The DR910 passive isolator is used for the electrical isolation and processing of analog 0 to 20 mA or 4 to 20 mA standard current signals. The DR910 provides electrical isolation between the control electronics and process I/O. In addition, interference signals above 75 Hz are effectively suppressed.

Input and output circuit do not require separate auxiliary power. The DR910 obtains power from the input signal. The modules are snapped onto symmetrical DIN rails in accordance with EN 50 022.

When using the DR910, ensure that the current-driving voltage of the measuring transducer is sufficient for driving the maximum current of 20 mA, with a power loss of 1.7V (1.7V + (20 mA * RLOAD)).

Voltage drop across the input is calculated by determining the load resistance of the output loop, drawing a vertical line to the curve (see diagram), then horizontally to the voltage drop. The energy for the supply on the input side is taken from the analog input signal. Due to the dynamic input resistance, a power loss of approximately 1.7V drops at the module input.

Specifications

Input Range: 0 to 20 mA, 4 to 20 mA
Maximum Input Current/Voltage: 40 mA/18 Vdc

Input Resistance@ 20 mA: 125 to 1125 Ω (dependent on load)

Voltage Drop at Input: See chart

Maximum Input Frequency: <75 Hz

Response Time: 5 msec maximum

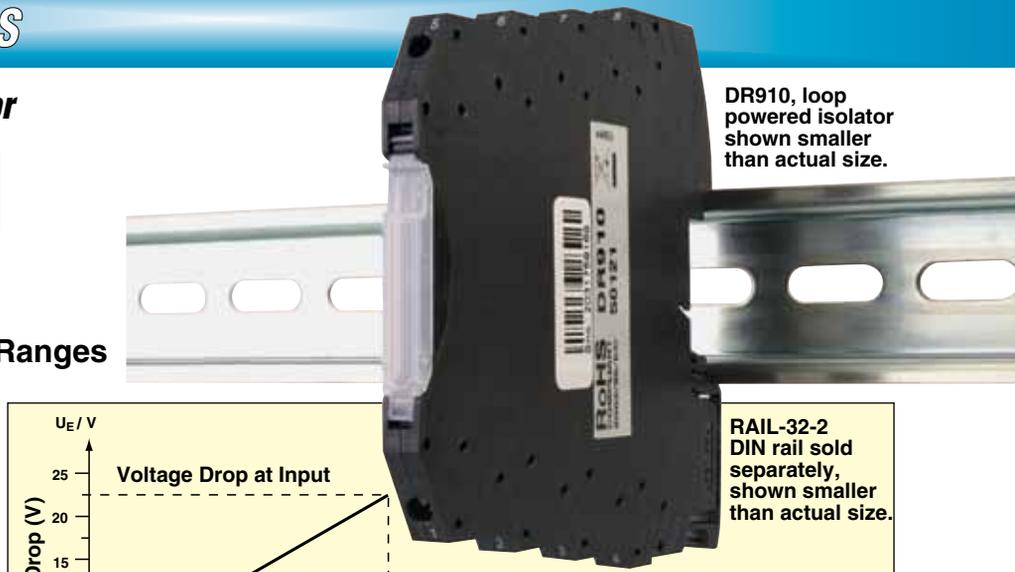
Output Signal: 0 to 20 mA, 4 to 20 mA

Maximum Load Resistance: ≤600 Ω @ 20 mA

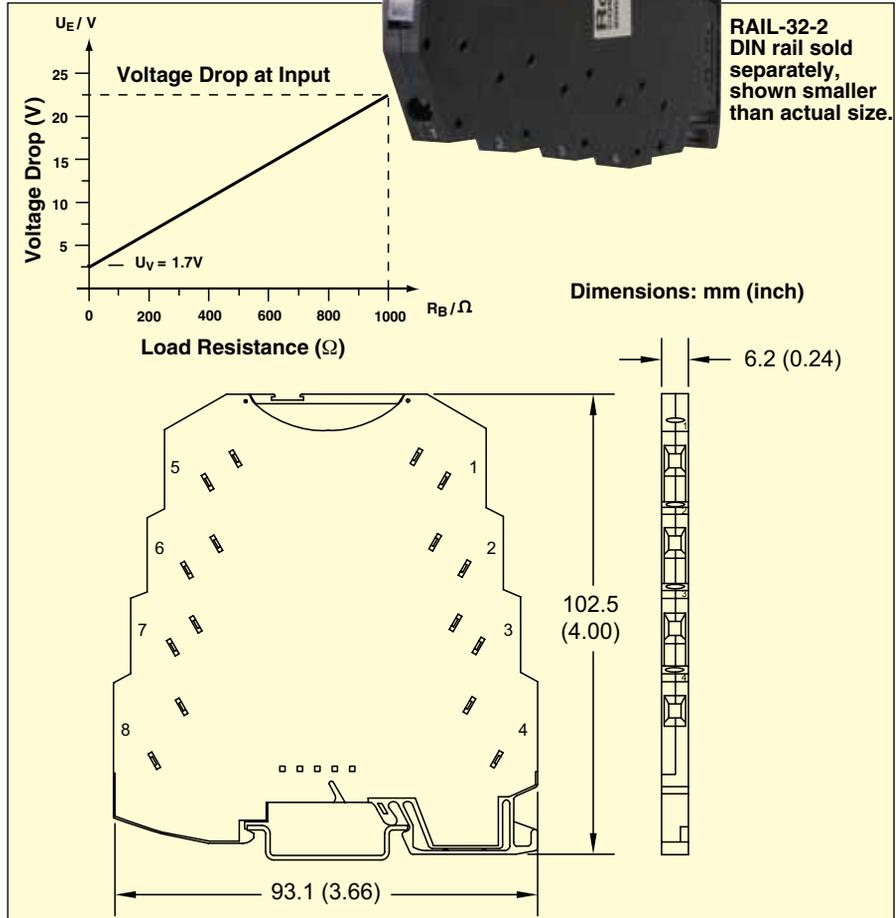
Isolation Voltage: 1.5 kV, 50 Hz, for 1 minute

Accuracy: ≤0.1% of full scale

Operating Temperature: -20 to 65°C (-4 to 149°F)



DR910, loop powered isolator shown smaller than actual size.



RAIL-32-2 DIN rail sold separately, shown smaller than actual size.

Temperature Coefficient:

≤0.002%/K of the measured value

Enclosure: Case body is black, polyester PBT

Mounting: Standard DIN style rail, including top hat (T) profile rail according to EN50022—35 x 7.5

Weight: 56 g (2 oz)



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 Visit omega.com/dr910 for Pricing and Details

Model No.	Description
DR910	Passive loop powered isolator
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
RAIL-35-2	35 mm (1.4") DIN rail, 2 m (6.6') length

Comes complete with operator's manual.

Ordering Example: DR910, passive loop powered isolator and OCW-1, OMEGACARESM extends standard 1-year warranty to a total of 2 years.

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