**DESCRIPTION**

The DR910 passive isolator is used for the electrical isolation and processing of analog 0(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.

**SPECIFICATIONS**

1. **INPUT RANGE:** 0(4) to 20 mA
2. **MAXIMUM INPUT CURRENT/VOLTAGE:** 40 mA/18 VDC
3. **VOLTAGE DROP AT INPUT:** 1.7 V + (20 mA * RLOAD)
4. **MAXIMUM INPUT FREQUENCY:** <75 Hz
5. **RESPONSE TIME:** 5 msec. max.
6. **OUTPUT SIGNAL:** 0(4) to 20 mA
   
   **Max. Load Resistance:** ≤ 600 Ω
7. **ISOLATION VOLTAGE:** 1.5 KV , 50 Hz, for 1 minute
8. **ACCURACY:** ≤0.1% of full scale
9. **OPERATING TEMPERATURE RANGE:** -20 to +65 °C
10. **TEMPERATURE COEFFICIENT:** ≤0.002%/K of the measured value
11. **CONSTRUCTION:** Case body is black, Polyester PBT
12. **MOUNTING:** Standard DIN style rail, including top hat (T) profile rail according to EN50022 - 35
13. **WEIGHT:** 2 oz (56 g)

**VOLTAGE DROP AT INPUT**

When using the DR910, ensure the voltage supply is sufficient for handling both the voltage drop of the input and the output load voltage drop. The DR910 input resistance will create around a 1.7 V drop.

The following formula calculates the total voltage drop (input and output).

Total voltage drop = (1.7 V + (20 mA * RLOAD))

Where:

1.7 V = Input voltage drop
20 mA * RLOAD = Output load voltage drop

**WIRING CONNECTIONS**

Connect transducer to input (Terminals 1 & 2), observing polarity. A power supply may be required for loop powered transducers.

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 1.7 V drops at the module input. The module’s output is self-powered (active), which is also derived from the input signal.

**DIMENSIONS**

In inches (mm)

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**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>INPUT</th>
<th>OUTPUT</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (4)-20 mA</td>
<td>0 (4)-20 mA</td>
<td>DR910</td>
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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

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WARNING: These products are not designed for use in, and should not be used for, human applications.

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1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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