# **○** OMEGA<sup>™</sup>

# **DRST-RTD**

## Single-channel, RTD DIN Rail Signal Transmitter



#### M-DRST-RTD/0319

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## Introductions

This temperature transmitter converts the RTD input signals to current or voltage signals by isolation. DIN rail power supply function can be selected in ordering.

The input, output, and power supply are galvanically isolated from each other. You can use handheld programmer to modify parameters or to calibrate the apparatus.

#### **Parameters**

Power supply

Connection type: Terminals (9+, 10-) or DIN rail connector

Rated voltage: 18 ~ 60 V DC (Recommended voltage: 24 V DC)

Input

RTD: Pt100, Cu100, Cu50, BA1, BA2, etc DC current: 0(4) ~ 20 mA, 0 ~ 10 mA Output

DC voltage: 0(1)~5 V, 0~10 V

Load resistance 0(4) ~ 20 mA: ≤ 550  $\Omega$ 

> $0 \sim 10 \text{ mA} \le 1.1 \text{ K}\Omega$ 0(1) ~ 5 V: ≥ 1 MΩ 0 ~ 10 V: ≥ 2 MΩ

Transmission characteristics (25 °C ± 2 °C)

Range < 100 °C: ± 0.1 °C Pt100/Cu100/Cu50/ Range ≥ 100 °C: ± 0.1% F.S BA1/BA2

Temperature drift 30 ppm/℃ ≤ 0.5s Response time  $\leq$  20  $\Omega$  per line Line resistance

Electromagnetic compatibility Accordance to IEC 61326-3-1

Dielectric strength ≥ 1500 V AC (Input /Output/Power supply) ≥ 100 M\O (Input /Output/Power supply) Insulation resistance

Ambient conditions

Operation temperature: -20 °C ~ +60 °C

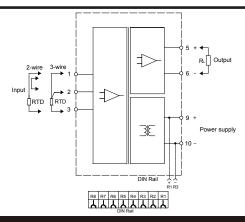
Relative humidity: 10% RH ~ 90% RH(40 °C)

80 kPa ~ 106 kPa Atmosphere pressure: Storage temperature: -40 °C ~ +80 °C

12.8 mm (W) × 110 mm (H) × 117 mm (D) Dimension

Degree of protection

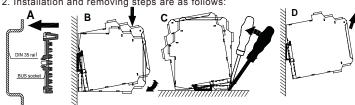
Power dissipation 0.8 W (24 V DC, single output)



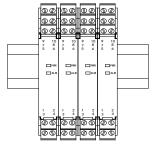
#### Installation

1. The apparatus can be installed on the DIN 35 mm standard rail which is corresponding to DIN IEC 60715. The must be snapped onto the rail, and never slanted or tipped to the side.

2. Installation and removing steps are as follows:



- A. Snap the BUS socket on the DIN 35 rail, as figure A;
- B. Snap metal lock onto mounting rail, then rotate the devices, as figure
- B, press down the devices onto mounting rail, make sure that the BUS connector pins of devices and BUS socket are in close contact.
- C. Pry the metal lock off the rail with screwdriver as arrow shown, pull downward the springs, and rotate the devices.
- D. Remove the devices as arrow shows
- 3. As far as possible to mount it vertically, In order to dissipation the heat of the apparatus.



Vertically installation

#### Light indication

PWR: Power indicator light shows green, it means work normally.

ALM: Input signal state indicator (red), it is off during normal operation, remain bright when input over-range. It is glitter when input line breakage or short circuit (except for linear resistance short circuit).



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- 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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- 2. Model and serial number of the product, and
- 3. Repair instructions and/or specific problems relative to the product.

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