

OMX 39RTD

The OMX 39 model series are low-price and simple analog transmitters with mounting on a 35 mm wide DIN rail.

Type OMX 39RTD is a transmitter for galvanic separation of temperature resistance sensors Pt 100/500/1 000.

The transmitters have galvanic separation with isolation voltage of 600 V and thus they are suitable as primary isolation for majority of industrial applications.

ISOLATED TRANSMITTER Pt > U/I

- INPUT: Pt 100/500/1 000
- OUTPUT: 0...5 mA, 0...20 mA, 4...20 mA, ± 20 mA
0...2 V, 0...5 V, 0...10 V, ± 10 V
- GALVANIC SEPARATION: 3,75 kVAC
- POWER SUPPLY 10...30 V AC/DC; 80...250 V AC/DC

OMX 39RTD

GALVANIC SEPARATION FOR TEMPERATURE SENSORS PT XXX

OPERATION

The transmitter is designed for simple measurements without further control.

CALIBRATION

By trimmers accessible from the face of the transmitter you may adjust the range of the output signal within the range of ± 10 %.

TECHNICAL DATA

INPUT

RTD Type	fixed - please specify the required range in the order
Pt 100 with 3 850 ppm/°C	-50°...850°C
Pt 500 with 3 850 ppm/°C	-50°...850°C
Pt 1 000 with 3 850 ppm/°C	-50°...850°C

Connect. 2, 3 or 4 wire

INSTRUMENT ACCURACY

TK: 50 ppm/°C
Accuracy: ±0,2% of range
Rate: continuous measurement
Overload capacity: 2x; 10x (t < 30 ms)
Calibration: at 25°C and 40% r.h.

ANALOG OUTPUTS

Type: isolated, fixed setting
 TK: 50 ppm/°C
Rate: response to change of value < 1 s
Voltage: 0...2 V, 0...5 V, 0...10 V, on request ±10 V (minimum load 1 kΩ)
Current: 0...20 mA, 4...20 mA, on request ±20 mA
 (line compensation up to 600 Ω)

POWER SUPPLY

Range: 10...30 V AC/DC, ±10 %, PF ≥ 0,4, I_{STP} < 40 A/1 ms, isolated
 80...250 V AC/DC, ±10 %, PF ≥ 0,4, I_{STP} < 40 A/1 ms, isolated
Consumption: < 2,4 W/2,6 VA
 Power supply is protected by a fuse inside the instrument.

MECHANIC PROPERTIES

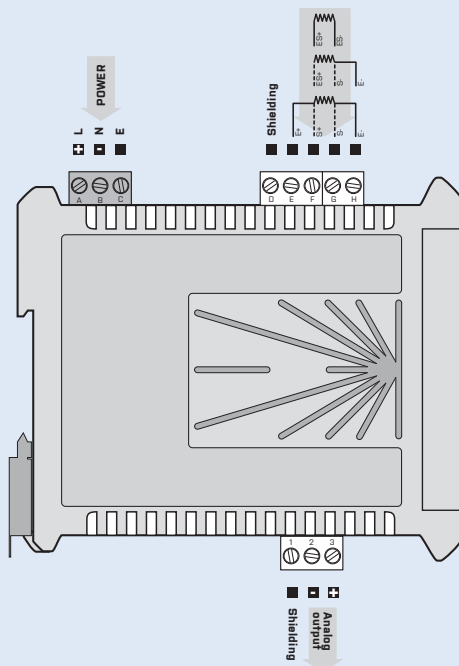
Material: PA 66, incombustible UL 94 V-1, blue
Dimensions: 22 x 98 x 113 mm (w x h x d)
Installation: on DIN rail, width 35 mm

OPERATING CONDITIONS

Connection: connector terminal blocks, section < 2,5 mm²
Stabilization period: within 5 minutes after switch on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Protection: IP20
El. safety: EN 61010-1, A2
Dielectric strength: 4 kVAC per 1 min test between supply and input
 4 kVAC per 1 min test between supply and analog output
 3,75 kVAC per 1 min test between input and analog output
Insulation resistance: for pollution degree II, measuring cat. III
 power supply > 600 V (PI), 300 V (DI)
 input, output, PN > 500 V (PI), 250 V (DI)
EMC: EN 61326-1

PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

OMX 39RTD

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Power supply	10...30 V AC/DC	0		
	80...250 V AC/DC	1		
Measuring range*	Pt 100		A	
	Pt 500		B	
	Pt 1 000		C	
Connection	2-wire			1
	3-wire			2
	4-wire			3
Analog output	0...2 V			1
	0...5 V			2
	0...10 V			3
	0...20 mA			4
	4...20 mA			5
	±10 V			6
	±20 mA			7
	0...5 mA			8

* Please specify the required input temperature range in the order!

Basic configuration of the instrument is indicated in bold.