



Data Sheet

**Isolated Pt RTD Signal Conditioner
OMX 39RTD**

Distributed by



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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

Number of inputs	1	
Pt	Type	
	fixed	
	- please specify the required range in the order	
	Pt 100, 3 850 ppm/°C	-50°...850°C
	Pt 500, 3 850 ppm/°C	-50°...850°C
	Pt 1 000, 3 850 ppm/°C	-50°...850°C
Connection	2, 3 or 4 wire	

INSTRUMENT ACCURACY

TC: 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
 TC: 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

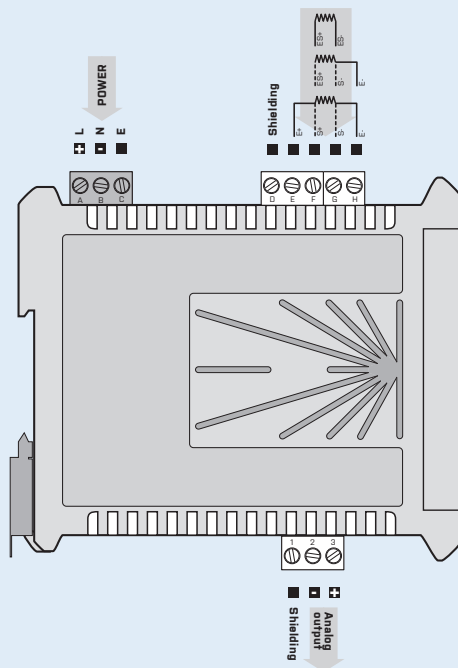
Material: PA 66, incombustible UL 94 V-1, blue
 Dimensions: 22 x 98 x 113 mm (w x h x d)
 Installation: on DIN rail, width 35 mm

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.