

2-wire room temperature transmitter

2914

- Room temperature measurement
- Complete with sensor and transmitter
- 4...20 mA output in 2-wire connection
- Easy mounting
- Measurement range 0...70°C
- Supply 8...35 VDC

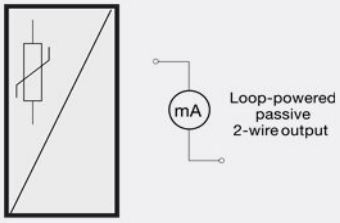
Application

- Electronic temperature measurement in for instance control rooms, offices, heating plants, factories, living rooms, and similar dry rooms.
- Suitable as a transmitter for controllers, trip amplifiers, displays, or superior SCADA systems.

Technical characteristics

- A precision Pt100 sensor with a small mass is mounted on the transmitter input thereby achieving a fast response time.
- The 2-wire output signal of 4...20 mA is proportional and linear to the temperature value that influences the built-in sensor.
- A reversed output signal of 20...4 mA may be ordered.
- A number of different sensor error detection options may be ordered.
- Protected against polarity reversal.
- The bottom of the cabinet can be attached to a wall by two screws.
- Visible or hidden cable access.

Applications



For pricing or any further information, please contact Omni Instruments Ltd.

Measurement and data acquisition solutions

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Order:

Type	Measurement range	Output	Sensor error value
2914	0...50°C : A	Special : 0	To max., ≥ 23 mA : A
	0...70°C : B	4...20 mA : 2	To min., ≤ 3.8 mA : B
	Special : X	20...4 mA : 9	Special : X

Environmental Conditions

Operating temperature..... 0°C to +70°C
Calibration temperature..... 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Protection degree..... IP30

Mechanical specifications

Dimensions (HxWxD)..... 70 x 121 x 25 mm
Weight approx..... 95 g
Wire size..... 1 x 1.5 mm^2

Common specifications

Supply

Supply voltage..... 8.0...35 VDC
Internal power dissipation..... 25 mW…0.8 W

Response time

Response time..... 10 s (@ 0.5 m/s)
Voltage drop..... 8.0 VDC
Warm-up time..... 5 min.
Signal / noise ratio..... Min. 60 dB
Accuracy..... Better than 0.3°C
Signal dynamics, input..... 17 bit
Signal dynamics, output..... 16 bit
Effect of supply voltage change..... < 0.005% of span / VDC
Temperature coefficient..... < ±0.01% of span / °C
Linearity error..... < 0.1% of span
EMC immunity influence..... < ±0.5%

Input specifications

Common input specifications

Max. offset..... 50% of max.°C

RTD input

Sensor current..... > 0.2 mA, < 0.4 mA
Measurement range..... 0...70°C
Min. measurement range..... 25°C (span)

Output specifications

Current output

Signal range..... 4…20 mA
Min. signal range..... 16 mA
Load (@ current output)..... ≤ (Vsupply - 8) / 0.023 [Ω]
Load stability..... ≤ 0.01% of span / 100 Ω
NAMUR NE43 Upscale/Downscale..... 23 mA / 3.5 mA

Common output specifications

Updating time..... 135 ms
of span..... = of the presently selected range

Observed authority requirements

EMC..... 2014/30/EU
RoHS..... 2011/65/EU
EAC..... TR-CU 020/2011

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