

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



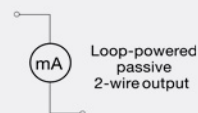
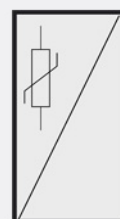
Application

- 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



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 mm²

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..... < $\pm 0.01\%$ of span / °C
 Linearity error..... < 0.1% of span
 EMC immunity influence..... < $\pm 0.5\%$

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)..... $\leq (V_{\text{supply}} - 8) / 0.023$ [Ω]
 Load stability..... $\leq 0.01\%$ 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
 EAC..... TR-CU 020/2011