



ENGLISH

Datasheet

RS PRO 2-Wire Programmable Transmitter

Stock No: 192-6531



- RTD, TC, Ohm, or mV input
- Extremely high measurement accuracy
- 1.5 kVAC galvanic isolation
- Programmable sensor error value

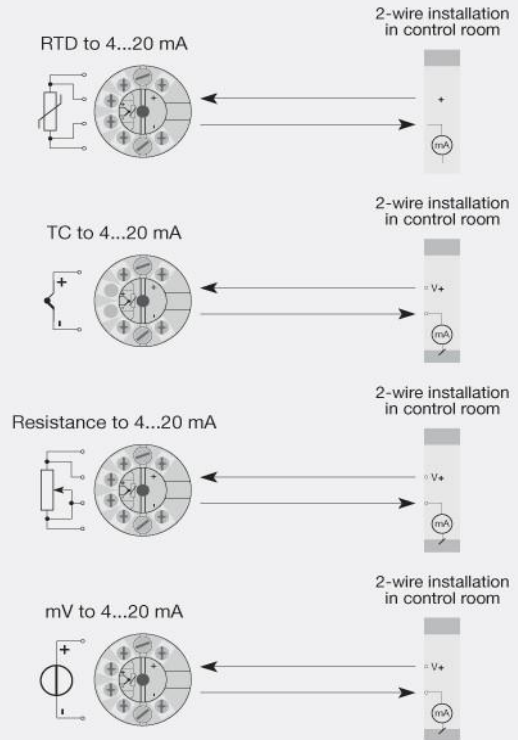
Application

- Linearized temperature measurement with Pt100...Pt1000, Ni100...Ni1000, or TC sensor.
- Conversion of linear resistance variation to a standard analog current signal, for instance from valves or Ohmic level sensors.
- Amplification of a bipolar mV signal to a standard 4...20 mA current signal.

Technical characteristics

- Within a few seconds the user can program 1926531 to measure temperatures within all ranges defined by the norms.
- The RTD and resistance inputs have cable compensation for 2-, 3- and 4-wire connection.
- Continuous check of vital stored data for safety reasons.

Applications



Order:

Type	Ambient temperature	Galvanic isolation
1926531	-40°C...+85°C : 3	1500 VAC : B

Environmental Conditions

Operating temperature..... -40°C to +85°C
 Calibration temperature..... 20...28°C
 Relative humidity..... < 95% RH (non-cond.)
 Protection degree (encl./terminal)..... IP68 / IP00

Mechanical specifications

Dimensions..... Ø 44 x 20.2 mm
 Weight approx..... 50 g
 Wire size..... 1 x 1.5 mm² stranded wire
 Screw terminal torque..... 0.4 Nm
 Vibration..... IEC 60068-2-6
 2...25 Hz..... ±1.6 mm
 25...100 Hz..... ±4 g

Common specifications**Supply**

Supply voltage..... 7.2...35 VDC
 Internal power dissipation..... 25 mW...0.8 W

Isolation voltage

Isolation voltage, test / working..... 1.5 kVAC / 50 VAC

Response time

Response time (programmable)..... 1...60 s
 Voltage drop..... 7.2 VDC
 Warm-up time..... 5 min.
 Programming..... Loop Link
 Signal / noise ratio..... Min. 60 dB
 EEPROM error check..... < 3.5 s
 Accuracy..... Better than 0.05% of selected range
 Signal dynamics, input..... 20 bit
 Signal dynamics, output..... 16 bit
 Effect of supply voltage change..... < 0.005% of span / VDC
 EMC immunity influence..... < ±0.5% of span
 Extended EMC immunity: NAMUR NE21, A criterion, burst..... < ±1% of span

Input specifications**Common input specifications**

Max. offset..... 50% of selected max. value

RTD input

RTD type..... Pt100, Ni100, lin. R
 Cable resistance per wire..... 5 Ω (max.)
 Sensor current..... Nom. 0.2 mA
 Effect of sensor cable resistance (3-/4-wire)..... < 0.002 Ω / Ω
 Sensor error detection..... Yes

Linear resistance input

Linear resistance min...max..... 0 Ω...5000 Ω

TC input

Thermocouple type..... B, E, J, K, L, N, R, S, T, U, W3, W5, LR
 Cold junction compensation (CJC)..... < ±1.0°C
 Sensor error detection..... Yes
 Sensor error current: When detecting / else..... Nom. 33 µA / 0 µA

Voltage input

Measurement range..... -12...800 mV

Min. measurement range (span)..... 5 mV
 Input resistance..... 10 MΩ

Output specifications**Current output**

Signal range..... 4...20 mA
 Min. signal range..... 16 mA
 Load (@ current output)..... ≤ (Vsupply - 7.2) / 0.023 [Ω]
 Load stability..... ≤ 0.01% of span / 100 Ω
 Sensor error indication..... Programmable 3.5...23 mA
 NAMUR NE43 Upscale/Downscale..... 23 mA / 3.5 mA

Common output specifications

Updating time..... 440 ms
 of span..... = of the presently selected range

I.S. / Ex marking

ATEX..... II 3 G Ex nA [ic] IIC T4...T6 Gc, II 3 G Ex ic IIC T4...T6 Gc, II 3 D Ex ic IIIC Dc
 IECEX..... Ex nA [ic] IIC T4...T6 Gc, Ex ic IIC T4...T6 Gc, Ex ic IIIC Dc Cl. I, Div. 2, Gp. A, B, C, D
 CSA..... T6...T4, Ex nA[ic] IIC T6...T4 Gc
 INMETRO..... Ex nA [ic] IIC T6...T4 Gc, Ex ic IIC T6...T4 Gc, Ex ic IIIC Dc

Observed authority requirements

EMC..... 2014/30/EU
 ATEX..... 2014/34/EU
 RoHS..... 2011/65/EU
 EAC..... TR-CU 020/2011
 EAC Ex..... TR-CU 012/2011

Approvals

DNV-GL Marine..... TAA0000101
 ATEX..... KEMA 10ATEX0002 X
 IECEX..... DEK 13.0035X
 INMETRO..... DEKRA 16.0013 X
 CSA..... 1125003
 EAC Ex..... RU C-DK.HA65.B.00355/19

