



**88-01900136-5333D** (order number)

- RTD or Ohm input
- High measurement accuracy
- 3-wire connection
- Programmable sensor error value
- For DIN form B sensor head mounting

**Stock version**

Input : Pt100-3 wire  
 Range : 0...+150°C  
 Output : 4...20mA

**Application**

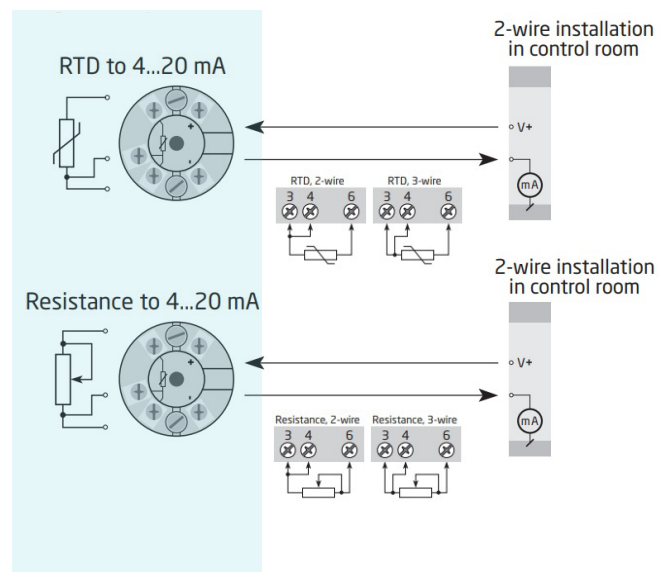
- Linearized temperature measurement with Pt100...Pt1000 or Ni100...Ni1000 sensor.
- Conversion of linear resistance variation to a standard analog current signal, for instance from valves or Ohmic level sensors.

**Technical characteristics**

- Within a few seconds the user can program 5333D to measure temperatures within all RTD ranges defined by the norms.
- The RTD and resistance inputs have cable compensation for 3-wire connection.

**Mounting / installation**

- For DIN form B sensor head mounting.





### 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 mm<sup>2</sup> 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..... 8.0...30 VDC  
Internal power dissipation..... 25 mW...0.8 W

#### Response time

Response time (programmable)..... 0.33...60 s  
Voltage drop..... 8.0 VDC  
Warm-up time..... 5 min.  
Programming..... Loop Link  
Signal / noise ratio..... Min. 60 dB  
Accuracy..... Better than 0.1% of sel. range  
Signal dynamics, input..... 19 bit  
Signal dynamics, output..... 16 bit  
Effect of supply voltage change..... < 0.005% of span / VDC  
EMC immunity influence..... < ±0.5% 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..... 10 Ω (max.)  
Sensor current..... > 0.2 mA, < 0.4 mA  
Effect of sensor cable resistance  
(3-wire)..... < 0.002 Ω / Ω  
Sensor error detection..... Yes

#### Linear resistance input

Linear resistance min...max..... 0 Ω...10000 Ω

### 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  
Sensor error indication..... Programmable 3.5...23 mA  
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 020/201

### Production

PR electronics A/S, Denmark

### Approvals

ATEX 2014/34/EU..... KEMA 03ATEX1535 X  
IECEX..... DEK 13.0036X  
FM..... FM17US0013X  
CSA..... 1125003  
INMETRO..... DEKRA 16.0014 X  
EAC Ex TR-CU 012/2011..... RU C-DK.GB08.V.00410  
DNV-GL Marine..... Stand. f. Certific. No. 2.4

### Ordering details

GÜNTHER temperature transmitter GT 5333D 88-01900136-5333D

### Accessories

Configuration interface (Loop Link) 88-02970001-5909