

TEMPERATURE TRANSMITTER Type: standard Input: Pt100...Pt1000 or Ni100...Ni1000	Type: TT-5332A	Sheet No. 6-5 V2.1 10122-E010818V2.1	
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Application:

- Temperature linearised measurement with Pt100...Pt1000 or Ni100...Ni1000.
- Conversion of linear resistance change to standard analogous current signal, e.g. from valves or ohmic level sensors

Properties:

- High measurement accuracy
- RTD- 2, 3 or 4 conductor attachment
- The RTD and resistance inputs have cable compensation for 3 conductor attachments
- Programmable sensor error value
- Can be programmed within a few seconds by 2-way configuration (Windows), to measure temperatures within all RTD ranges defined by the norms
- TAG No: 15 character configurable
- Degree of protection (case/clamp): IP68 / IP00
- Measurements: Ø44 x 20.2mm
- Mounting/ installation: can be mounted in DIN form B sensor head or on DIN track with special clamp


TECHNICAL DATA:
INPUT:

Type	Min temp.	Max temp.	Min span	Norm
Pt100	-200°C	+850°C	25°C	DIN IEC 751
Ni100	-60°C	+250°C	25°C	
Lin. R	0Ω	5000ohm	30ohm	

COMMUNICATION INTERFACE:

Loop link 5905

MECHANICAL DATA:

Measurements: Ø 44 x 20,2 mm
Degree of protection (case/clamp): IP68/ IP100

ENVIROMENTAL CONDITIONS:

Operating temperature: -40°C to +85°C
Humidity: < 95% RH (non-cond.)

TECHNICAL DATA:
OUTPUT:

Signal range: 4 - 20 mA

ACCURACY:

Type:	Basic accuracy:	Temperature coefficient:
RTD	≤±0,2°C	≤±0,01°C/°C
LIN R	≤±0,1ohm	≤±10mohm/°C

COMMON SPECIFICATIONS:

Supply voltage: DC: 7,2...35 V
Voltage drop: 7,2 VDC
Reaction time (programmable): 0,33...60 s

SENSOR TROUBLE SHOOTING:

Programmable: 3.5...23 mA
NAMUR NE43 Upscale: 23 mA
NAMUR NE43 Downscale: 3,5 mA

Ordering details: Please state If the transmitter should be programmed

Transmitter Input Type:			
4 mA =	C°	20 mA =	C°



2-wire programmable RTD transmitter

5332A

- RTD or Ohm input
- Accuracy: Better than 0.05% of selected range
- Programmable sensor error value
- For DIN form B sensor head mounting



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.

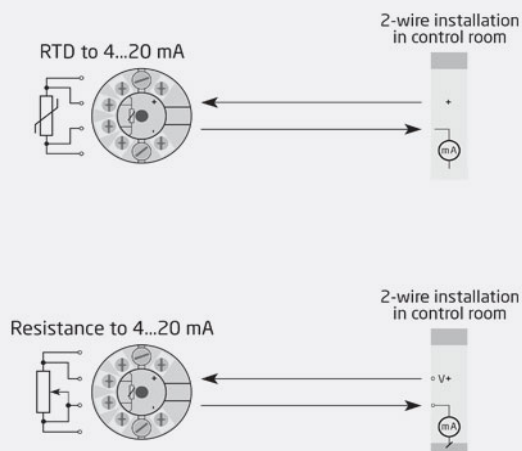
Technical characteristics

- Within a few seconds the user can program PR5332A to measure temperatures within all ranges defined by the norms.
- Dedicated programmable non-isolated 4-wire RTD transmitter.
- RTD and resistance inputs have cable compensation for 2-, 3- and 4-wire connection.
- Continuous check of vital stored data for safety reasons.

Mounting / installation

- For DIN form B sensor head or DIN rail mounting with the PR fitting type 8421.

Applications



Order

Type	Version
5332	Simple, no approvals : N General purpose, Zone 2, ATEX, IECEx : A

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 ² stranded wire
Screw terminal torque.....	0.4 Nm

Common specifications**Supply**

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

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
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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
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Output specifications**Common output specifications**

Updating time.....	440 ms
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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
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

Observed authority requirements**Directives**

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

Approvals

ATEX.....	KEMA 10ATEX0002 X
IECEx.....	DEK 13.0035X