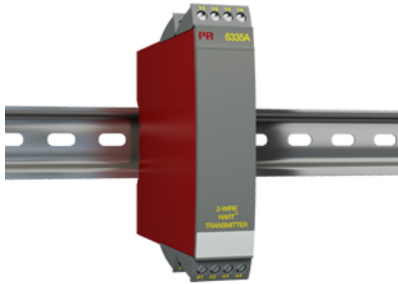


2-wire HART transmitter



6335A

- RTD, TC, Ohm, or mV input
- Extremely high measurement accuracy
- HART 5 protocol
- Galvanic isolation
- 1- or 2-channel version



Application

- Linearized temperature measurement with Pt100...Pt1000, Ni100...Ni1000, or TC sensor.
- Difference or average temperature measurement of 2 resistance or TC sensors.
- 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.
- Connection of up to 15 channels to a digital 2-wire signal with HART communication.

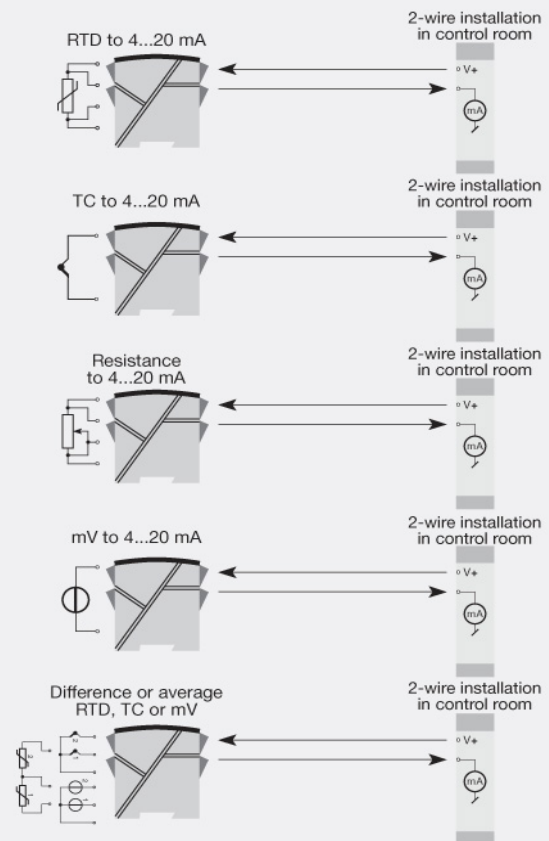
Technical characteristics

- Within a few seconds the user can program PR6335A 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.
- The 6335A has been designed according to strict safety requirements and is thus suitable for application in SIL 2 installations.
- Continuous check of vital stored data for safety reasons.
- Sensor error detection according to the guidelines in NAMUR NE89.

Mounting / installation

- Mounted vertically or horizontally on a DIN rail. As the devices can be mounted without any distance between neighbouring units, up to 84 channels can be mounted per metre.

Applications



Order:

| Type | Galvanic isolation | Channels |
|-------|--------------------|--------------------------|
| 6335A | 1500 VAC : 2 | Single : A Double : B |

*NB! Please remember to order CJC connectors type 5910 (channel 1) and 5913 (channel 2) for TC inputs with an internal CJC.

Environmental Conditions

| | |
|------------------------------|----------------------|
| Operating temperature..... | -40°C to +85°C |
| Storage temperature..... | -40°C to +85°C |
| Calibration temperature..... | 20...28°C |
| Relative humidity..... | < 95% RH (non-cond.) |
| Protection degree..... | IP20 |

Mechanical specifications

| | |
|------------------------------|---|
| Dimensions (HxWxD)..... | 109 x 23.5 x 104 mm |
| Weight (1 / 2 channels)..... | 145 / 185 g |
| DIN rail type..... | DIN EN 60715/35 mm |
| Wire size..... | 0.13...2.08 mm ² AWG 26...14 stranded wire |
| Screw terminal torque..... | 0.5 Nm |

Common specifications**Supply**

| | |
|---------------------|--------------|
| Supply voltage..... | 8.0...35 VDC |
|---------------------|--------------|

Isolation voltage

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

Response time

| | |
|--|-------------------------------------|
| Response time (programmable)..... | 1...60 s |
| Voltage drop..... | 8.0 VDC |
| Warm-up time..... | 30 s |
| Programming..... | Loop Link & HART |
| Signal / noise ratio..... | Min. 60 dB |
| Accuracy..... | Better than 0.05% of selected range |
| Signal dynamics, input..... | 22 bit |
| Signal dynamics, output..... | 16 bit |
| Effect of supply voltage change..... | < 0.005% of span / VDC |
| EMC immunity influence..... | < ±0.1% 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...1000, Ni100...1000, lin. R |
| Cable resistance per wire..... | 5 Ω (up to 50 Ω per wire is possible with reduced measurement accuracy) |
| 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...7000 Ω |
|----------------------------------|--------------|

TC input

| | |
|--|--------------------------------------|
| Thermocouple type..... | B, E, J, K, L, N, R, S, T, U, W3, W5 |
| 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..... | -800...+800 mV |
|------------------------|----------------|

| | |
|------------------------------------|--------|
| Min. measurement range (span)..... | 2.5 mV |
| Input resistance..... | 10 MΩ |

Output specifications**Current output**

| | |
|-----------------------------------|---|
| Signal range..... | 4...20 mA |
| Min. signal range..... | 16 mA |
| Load (@ current output)..... | ≤ (V _{supply} - 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..... | 440 ms |
| of span..... | = of the presently selected range |

Observed authority requirements

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

Approvals

| | |
|----------------------|---|
| ATEX 2014/34/EU..... | KEMA 10ATEX0006 X |
| IECEx..... | KEM 10.0084X |
| SIL..... | Hardware assessed for use in SIL applications |