

2-Wire HART® Transmitter

Model 6335A

- RTD, TC, Ohm, or mV Input
- Extremely High Measurement Accuracy
- HART® Communication
- 1.5 VAC Galvanic Isolation
- 1- or 2-Channel Version



Application:

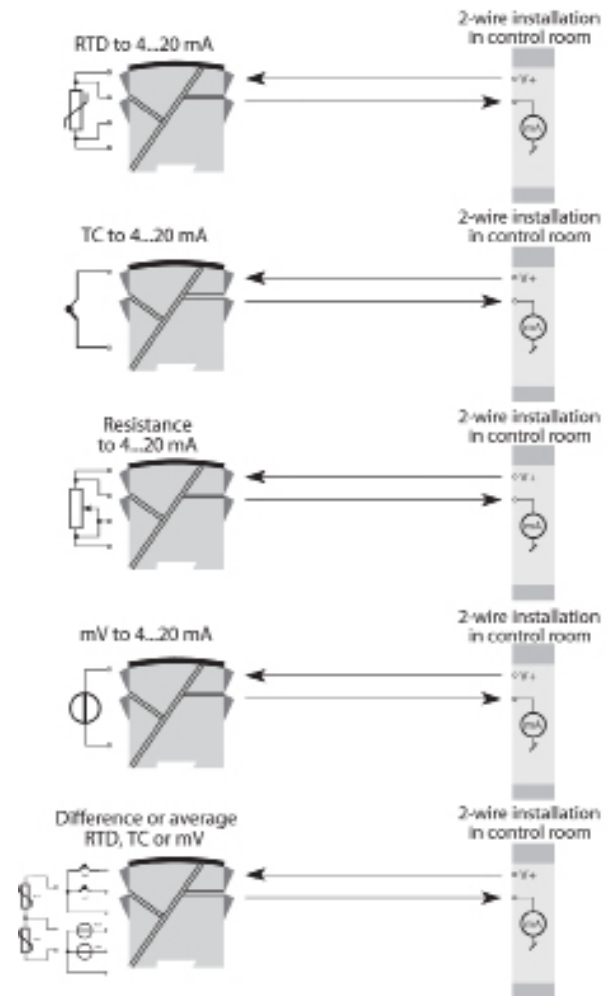
- Linearized temperature measurement with Pt 100...Pt 1000, Ni100...Ni1000, or TC sensor.
- Difference or average temperature measurement of 2 resistance or TC sensors.
- Conversion of linear resistance variation to a standard analog current signal.
- Amplification of a bipolar mV signal to a standard 4...20 mA current signal.
- Connection of up to 15 channels to a digital 2-wire signal with HART® communication.

Technical Characteristics:

- Within seconds the user can program a 6335A to measure temperatures within all standard ranges.
- The RTD and resistance inputs have cable compensation for 2-, 3- and 4-wire connection.
- Continuous check of vital stored data.
- Sensor error detection according to the guidelines in NAMUR NE 89.

Mounting/Installation:

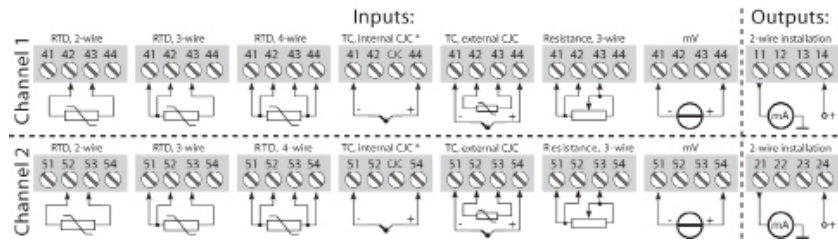
- Mounted vertically or horizontally on a DIN rail. Using the 2-channel version up to 84 channels per meter can be mounted.



Ideas. Solutions. Success.

Specifications

**Order: 6335A2A (Single Channel)
6335A2B (Dual Channel)**



Electrical Specifications

Specifications Range:

-40°C to +60°C

Common Specifications:

Supply voltage, DC.....8.0..35 VDC
 Voltage drop.....8.0 VDC
 Isolation voltage, test /operation.....1.5 kVAC / 50 VAC
 Isolation voltage, ch. 1 / ch . 23.75 kVAC
 Communications InterfaceLoop Link & HART®
 Signal/noise ratioMin. 60 dB
 Response time (programmable).....1..60 s
 Signal dynamics, input.....22 bit
 Signal dynamics, output.....16 bit
 Calibration temperature.....20...28°C

Accuracy, the greater of general and basic values:

General Values		
Input Type	Absolute Accuracy	Temperature Coefficient
All	± 0.05 % of span	± 0.005% of span / °C

Basic Values		
Input Type	Basic Accuracy	Temperature Coefficient
Pt100 and Pt 1000	± 0.1°C	± 0.005°C/°C
Ni100	± 0.2°C	± 0.005°C/°C
Lin. R	± 0.1 Ω	± 5 mΩ/°C
Volt	± 10 μV	± 0.5 μV/°C
TC type: E, J, K, L, N, T, U	± 0.5°C	± 0.025°C/°C
TC type: B, R, S, W3, W5	± 1°C	± 0.1°C/°C

EMC immunity influence	< ± 0.1% of span
Extended EMC immunity: NAMUR NE 21, A criterion, burst	< ± 1% of span

Humidity< 95% RH (non-cond.)
 Dimensions (H x W x D).....109 x 23.5 x 104 mm
 Protection degree (encl. / terminal).....IP20
 Weight (1 / 2 channels).....145 / 185 g

Electrical Specifications, Input:

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

RTD and Linear Resistance Input:

RTD Type	Min. Value	Max. Value	Min. Span	Standard
Pt100	-200°C	+850°C	10°C	IEC 60751
Ni100	-60°C	+250°C	10°C	DIN 43760
Lin. R	0 Ω	7000 Ω	25 Ω	—

Cable resistance per wire (max.).....5 Ω
 Sensor current.....Nom. 0.2 mA

TC Input:

Type	Min. Temp.	Max. Temp.	Min. Span	Standard
B	+400°C	+1820°C	100°C	IEC584
E	-100°C	+1000°C	50°C	IEC584
J	-100°C	+1200°C	50°C	IEC584
K	-180°C	+1372°C	50°C	IEC584
L	-100°C	+900°C	50°C	DIN 43710
N	-180°C	+1300°C	100°C	IEC584
R	-50°C	+1760°C	200°C	IEC584
S	-50°C	+1760°C	100°C	IEC584
T	-200°C	+400°C	50°C	IEC584
U	-200°C	+600°C	75°C	DIN43710
W3	0°C	+2300°C	100°C	ASTM E988-90
W5	0°C	+2300°C	100°C	ASTM E988-90

Cold junction compensation.....< ±1.0 °C

Voltage Input:

Measurement range.....-800...+800 mV
 Min. span2.5 mV
 Input resistance.....10 MΩ

Current Output:

Signal range4...20 mA
 Min. signal range.....16 mA
 Updating time440 ms
 Load resistance.....≤ (Vsupply - 8) / 0.023 [Ω]

Sensor Error Detection:

Programmable3.5...23 mA
 NAMUR NE43 Upscale.....23 mA
 NAMUR NE43 Downscale.....3.5 mA

Observed Authority Requirements: Standard:

EMC 2004/108/ECEN 61326-1

Of Span = Of the presently selected range

Loop Link = PC compatible programming software

*The transmitter is manufactured by PR electronics. All approvals listed are recognized under the PR name.

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