

5335A

Temperature Transmitter

Temperature Transmitters



The 5335A is a high accuracy head-mounted programmable transmitter suitable for RTD and Thermocouple inputs. The transmitter has HART®5 Protocol communication and 4 to 20mA current output. The 5335A allows the connection of up to 15 transmitters to a digital 2-wire signal with HART® communication.

Connections:

Linear Resistance Input:

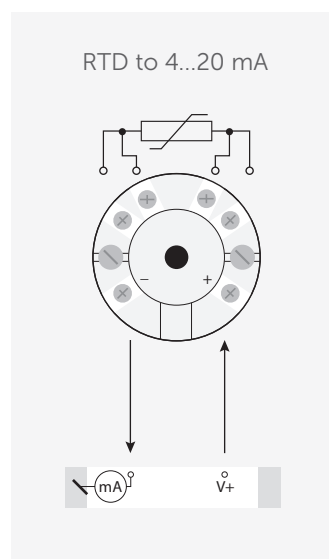
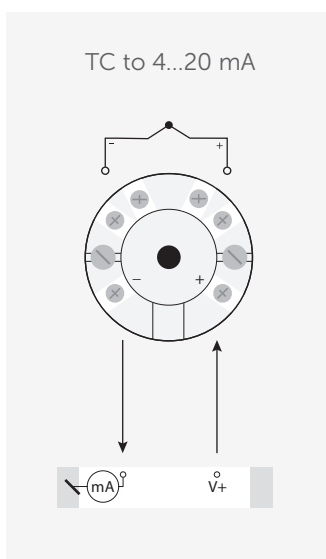
Type	Min. Value	Max. Value	Min. Span
Pt100	-200°C	+850°C	10°C
Ni100	-60°C	+250°C	10°C
Lin. R	0 Ω	7000 Ω	10 Ω

Thermocouple Input:

Type	Min. Temp.	Max. Temp.	Min. Span
B	0°C	+1820°C	100°C
E	-100°C	+1000°C	50°C
J	-100°C	+1200°C	50°C
K	-180°C	+1372°C	50°C
L	-200°C	+900°C	50°C
Lr	-200°C	+800°C	50°C
N	-180°C	+1300°C	50°C
R	-50°C	+1760°C	100°C
S	-50°C	+1760°C	100°C
T	-200°C	+400°C	50°C
U	-200°C	+600°C	50°C
W3	0°C	+2300°C	100°C
W5	0°C	+2300°C	100°C

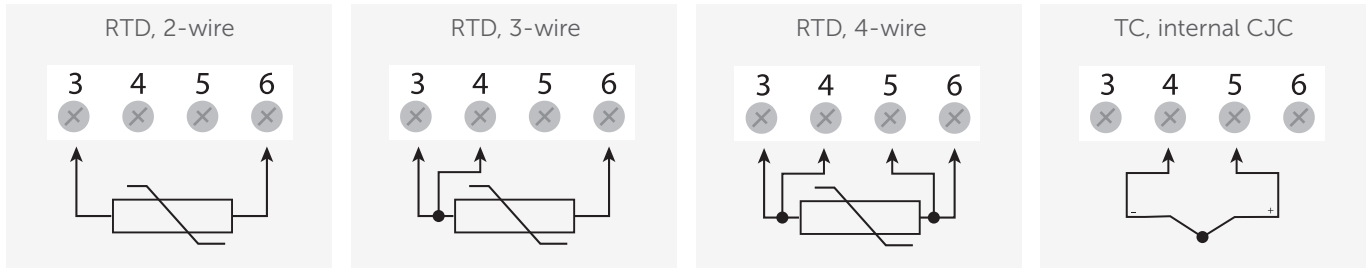
Output:

mA, signal range / min span	4...20mA / 16mA
2-Wire output	4...20mA



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Environmental Conditions

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

Mechanical Specifications

Dimensions	Ø44 mm x 20.2 mm
Weight approx	50 g
Wire size	1 x 1.5 mm ² stranded wire
Screw terminal torque	0.4 Nm
Vibration	IEC 60068-2-6 Test FC

-Common Specifications

Supply voltage	8.0...35 VDC
Voltage drop	8.0 VDC
Isolation voltage, test / working	1.5kVAC / 50 VAC
Communications interface	Loop Link & HART
Signal / noise ratio	> 60 dB
Response time (programmable)	1...60 s
EMC immunity influence	≤0.01% of span
Extended EMC immunity: NAMUR NE21, A criterion, burst	≤+1% of span

Input Specifications

Max. offset	50% of selected max. value
RTD input	Pt50, Pt100, Pt200, Pt500, Pt1000, Ni50, Ni100, Ni120, Ni1000
Cable resistance per wire (max.), RTD	5 Ω (up to 50 Ω per wire is possible with reduced measurement accuracy)
Sensor current, RTD	Nom. 0.2 mA
TC input: Thermocouple type	B, E, J, K, L, N, R, S, T, U, W3, W5

Output Specifications

Current output: Signal range	4...20 mA
Minimum signal range	16 mA
Updating time	440 ms
Load resistance, current output	≤ (V _{supply} - 8) / 0.023 [Ω]
Sensor error detection, current output	Programmable 3.5...23 mA
NAMUR NE 43 Upscale/Downscale	23 mA / 3.5 mA
HART protocol revisions	HART 5

Approvals

EMC	EN 61326-1
FM	2D5A7
CSA	1125003
INMETRO	NCC 12.0844 X
GOST R	Yes
DNV Marine	Stand. f. Certific. No. 2.4