

9100D temperature transmitter



Overview

A highly accurate microprocessor-based temperature transmitter, the 9100D accepts a wide range of inputs, RTDs, Thermocouples, Resistance and Millivolt. Loop-powered and providing 4-20mA and HART output signals, it is configured with a HART Communicator or a PC and our software. The slim DIN rail design allows for several transmitters to be mounted in a small area.

Key features

- Low cost
- 0.08% accuracy
- Full input-output isolation
- Custom input/linearization capability
- Configurable via a PC or HART Communicator
- T/C Inputs: B, C, D, R, S, E, J, K, L, N, T, U
- RTD inputs: Pt100, Pt500, Pt1000, Ni100, Ni500, Ni1000
- mV Inputs: -10 to 75mV
- Ohm Inputs: 10 to 2000 ohms
- Outputs: 2-wire, 4-20mA or 20-4mA with optional HART signal superimposed

Technical specification

Feature	Description
Input range	Standard Pt100, selectable range -328 to 1562F (-200 to 850C), minimum span 18F (10C), options, various RTD, TC inputs accepted
Output	Standard 4-20mA, with option of 20 to 4mA. HART Signal superimposed on 4-20mA loop signal.
Zero and span adjustments	Using HART Communicator or software provided, it can be set anywhere within sensor range. Zero and Span are non interacting.
Failsafe	Standard upscale at 21.5 mA, with optional downscale at 3.6 mA
Response time	1 second
Damping	User settable from 0 to 100 seconds
Isolation	2000 VAC, input to output
Power supply	11.5 to 35VDC
Load resistance	$R_{Max} \text{ (ohms)} = (V_{Supply} - 11.5VDC) / .022A$
Accuracy	For Pt100: .36F (0.2C) or 0.08% of span, whichever is greater. Options depends on input range.
Long term stability	+/-0.05% of calibrated span per year
Cold junction compensation	+/-1C (measured with Pt100 IEC 751, Class B)
Temperature limit	-40F to 185F (-40C to 85C)
EMI/RFI effect	Conforms to EU Directives (CE Mark). Meets IEC 61326 amend 1, 1998 and NAMUR NE21.
Approvals	Optional Factory Mutual (FM), CSA and Intrinsically Safe (IS)

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Part of Ultra Group, a global electronics company, Ultra Energy has worked with nuclear and industrial customers for over 60 years. We support customers across the world from facilities located in the US and UK. Our solutions are embedded in strategic national infrastructure and our people are active partners in customer programs that are focused on delivering advanced future nuclear and industrial capabilities.

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