RTT30 SPECIFICATIONS

Temperature Inputs:
- 2-, 3- and 4- wire RTD (Cu100, Ni100, Ni120, Pt100, Cu50, Ni1000, Pt50, Pt1000,Pt500, Cu10 and Pt200
- Thermocouples; B,C,D,E,J,K,L,N,R,S,T and U
- Resistance and Millivolt input devices

Ambient Temperature Range Operative Limits:
- Without Integral Indicator: -40 and +85°C (-40 and +185°F)
- With Integral Indicator: -40 - +70°C (-40 and +158°F)

Relative Humidity:
- 0 and 100% (condensation permitted)

Supply Voltage:
- With HART Indicator: 18 – 40 V dc
- Without HART Indicator 11 – 40 V dc

Repeatability:
- +/-0.0015% of the input range of the sensors

Long Term Stability:
- <0.1°C (<0.18°F) per year or < 0.5% per year (which ever is greater)

Response Time:
- 1 second per channel

Fault Information per NAMUR NE 43:
- Under-range: Linear drop to 3.8 mA
- Over-range: Linear rise to 20.5 mA
- Failure (sensor break or short circuit) <3.6 mA low or > 21 mA high (Selectable)
- High alarm is adjustable between 21.6 and 23 mA for flexibility with various control systems

Warm-Up Time:
- 4 seconds

Electrical Conduit:
- ½ NPT and M20

Weight:
- Aluminum Housing: 1.4 kg (3.1 lb)
- Stainless Steel Housing: 4.2 kg (9.3 lb)

RTT TEMPERATURE TRANSMITTERS

With our RTT15, RTT20, RTT25 and RTT30 temperature transmitters, you select the intelligence level you need, as well as multiple configurations.

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Foxboro

RTT30 Intelligent Temperature Transmitter

For demanding temperature measurement applications that require a rugged, robust and reliable temperature transmitter, the Invensys Foxboro® RTT30 Temperature Transmitter provides the best solution.

INTRODUCTION

The RTT30 is a new pinnacle in temperature transmitter engineering, design and manufacturing. The RTT30 Intelligent Temperature transmitter is a full-featured, 2-wire transmitter, which is available in HART, Foundation Fieldbus and Profibus PA communication protocols. Remote communication is provided with a HART communicator or PC-based Configurator. Input signals are received from RTDs and thermocouples, and from resistance and millivolt sources. There can be two measuring inputs in 2-, 3-, and 4-wire connections.

An optional backlit LCD can be provided that shows the current primary temperature measurement and can indicate alarms.

The rich diagnostics of the RTT30 enables cost savings via alarms to trigger predictive maintenance scenarios and is capable of automatically switching to a back up sensor and notifying the control room that a primary sensor has gone bad. A failed temperature sensor can translate into major productivity losses.

Reduce your spare inventory by specifying one universal transmitter — suitable for remotely mounted RTD or thermocouple sensors. You save time and money with easy installation, operation, and maintenance.

Choose between two different housing materials: aluminum alloy or stainless steel to meet the most demanding corrosive environments. The RTT30 meets FM, CSA and ATEX intrinsically safe, nonincendive and explosion-proof requirements.

FEATURES / BENEFITS

Dual Compartment Housing

Electronics are isolated from the terminal block. Longer service life and better protection of the electronics from corrosive environments.

Intelligent "Hot Sensor Backup"

Should the primary sensor burn out, the RTT30 is able to intelligently switch to a secondary backup sensor. This prevents unexpected downtime and maintains productivity within the plant.

Sensor Corrosion

The RTT30 is capable of measuring corrosion on the Sensor. Maintenance is able to better predict the quality of their temperature sensors and their life expectancy.

Sensor Drift Detection

This diagnostic enables the Control room to evaluate their temperature measurements over time and make better decisions concerning sensor stability.

Automatic Temperature Range Sensor Change

The RTT30 is capable of switching the primary temperature measurement from sensor 1 to sensor 2 (a different sensor type) which is accurate for a certain temperature range.