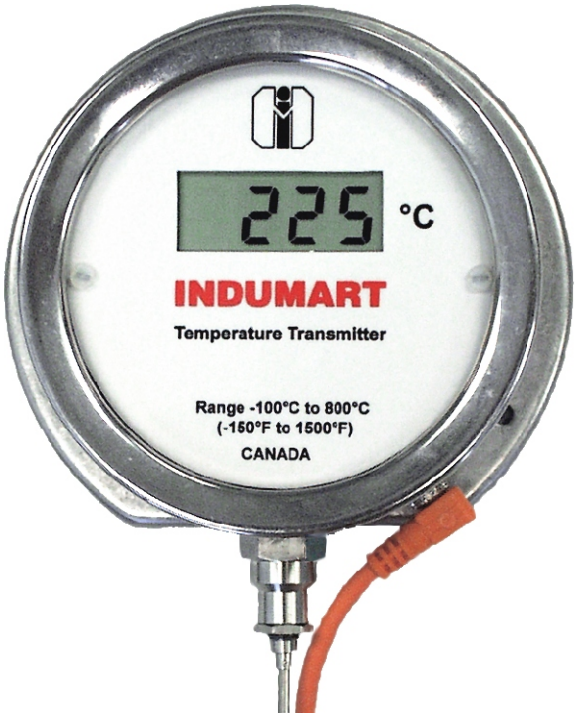
INDUMART Canada
www.indumart.com

Indicating Temperature Transmitter

SERIES: DTT50

- HIGH ACCURACY (UP TO ±0.2˚C)
- 4-20 mA OUTPUT
- LOOP POWERED (2-WIRE)
- MICROPROCESSOR BASED
- 4-DIGIT LCD DISPLAY
- DUAL UNIT DISPLAY (˚C or ˚F)
- STAINLESS STEEL CASE
- IP-67 PROTECTION (WATERPROOF)
- SELECTION OF T/C OR RTD SENSOR
- MAX/MIN TEMPERATURE LOGGING
- ADJUSTABLE RANGE



INTRODUCTION

Indumart *DTT50 Series* Indicating Temperature Transmitters are high-accuracy, high-resolution, microprocessor based instruments. Because of their robust design, these transmitters meet stringent demands and can also be used in critical industrial applications where particular importance is attached to measuring accuracy, reproducibility, long term stability and protection against water immersion and dust penetration.

Housed in a rugged IP67 stainless steel instrument case, the *Series DTT50* transmitters are supplied either with a Pt-1000 RTD or with a thermocouple sensor. They may be ordered as panel mounting instruments with either three-hole front flange or back flange, or as direct mounting instruments with a 316 stainless steel rigid stem. The stem for all models is compatible with most gases and liquids, and, if require for special food or hygienic applications, a captive ⅜" or 1" hygienic fitting will be fitted to the ¼" diameter stem.

The four-digit, 12.7 mm high LCD display can show temperature in either ˚C or ˚F, and the operator may switch between the two units at the site.

As a standard feature, the *DTT50* Transmitters are fitted with Min/Max capability, which stores the minimum and maximum measured temperatures. These temperatures may be displayed or cleared by means of magnetically-operated switches without opening the sealed case.

Calibration of the transmitter's 4-20 mA loop circuit is easy and can be performed at site. As a standard practice, all *DTT50 Series* are calibrated at 20˚C. Calibration procedure is also supplied with every transmitter to enable the end user to carry out periodic calibration to meet the requirements for ISO9000 certification.

The instrument can be configured to transmit a 4-20 mA signal across either the full, or part of the measuring range.

SPECIFICATIONS

General

Case	304 St. steel with bezel
Case Diameter	100 mm
Protection Class	IP67
Window	Acrylic, Safety glass (option)
Output	4-20 mA
Display	4-digit LCD; 12.7 mm high
Display Unit	°C or °F. User selectable
Display Update Rate	0.5 second
Process Connection	Plane; Compression fitting; Hygienic
Stem Material	316 St. steel
Stem Diameter	12.7 mm or 6.35 mm
Electrical Connector	M8 sensor type, 3-pole (IP68) Mating plug with 2 m cable
Loop Supply	10...32 VDC
Loop Ranging	Adjustable across the full or part of the measurement range
Ambient Temperature	-10...+70°C
EMC Immunity:	EN 50081-1
Emission:	EN 50082-2
Protection	Reverse loop polarity protected

RTD Sensor

Accuracy @ 20°C	±0.2°C
Measuring Range	-50...+200°C, -60...+400°F
Resolution	0.1°
Sensor	3-wire Pt-1000 RTD
Temp. Stability - Zero:	±0.005/°C for changes in ambient temp. from 20°C
Temp. Stability - Span:	±0.003/°C for changes in ambient temp. from 20°C
Linearisation	<±0.05°C

Thermocouple Sensor

Accuracy @ 20°C	±1°C or ±1 digit
Measuring Range	-100...+800°C, -150...+1500°F
Resolution	1°
Sensor	Type "K" thermocouple
Temp. Compensation	Automatic; Error included in the basic accuracy
Temp. Stability - Zero:	±0.05/°C for changes in ambient temp. from 20°C
Temp. Stability - Span:	±0.01/°C for changes in ambient temp. from 20°C
Linearisation	±1°C

Ordering DTT50

DTT50 [ ] [ ] [ ] [ ] [ ]

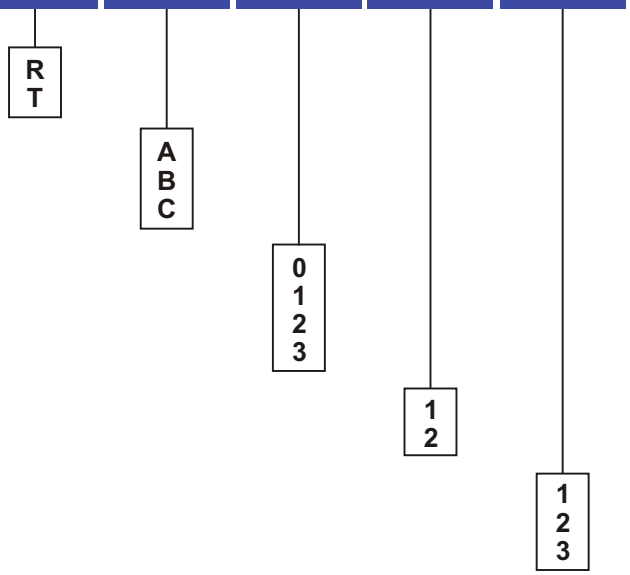
Sensor Type
RTD
Thermocouple

Mounting
Local
Remote with back flange
Remote with front flange

Extension
None
Rigid
Armored
PTFE coated cable

Stem Diameter
6.35 mm
12.7 mm

Connection
Plane
Compression fitting
Hygienic



Length of the stem and the extension cable must be specified at the time ordering.

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