



SERIES: DT50

- HIGH ACCURACY (UP TO $\pm 0.2^{\circ}\text{C}$)
- MICROPROCESSOR BASED
- 4-DIGIT LCD DISPLAY
- STAINLESS STEEL CASE
- IP67 PROTECTION (WATERPROOF)
- DUAL UNIT DISPLAY ($^{\circ}\text{C}$ or $^{\circ}\text{F}$)
- SELECTION OF T/C OR RTD SENSOR
- MAX/MIN TEMPERATURE LOGGING (OPTION)
- INTRINSICALLY SAFE (OPTION)
- POWERED BY 2 "AA" BATTERIES
- 2 TO 3 YEARS OF BATTERY LIFE
- LOW BATTERY WARNING

INTRODUCTION

Indumart *DT50 Series* Battery Powered Digital Thermometers are high-accuracy, high-resolution, microprocessor based temperature indicators. Because of their robust design, these temperature gauges 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 DT50* thermometers 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 $\frac{3}{4}$ " or 1" hygienic fitting will be fitted to the $\frac{1}{2}$ " diameter stem.



The four-digit, 12.7 mm high LCD display can show temperature in either $^{\circ}\text{C}$ or $^{\circ}\text{F}$, and the operator may switch between the two units at the site.

The *DT50* Digital Thermometers may be fitted with Min/Max option, 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.

Powered by two conventional 1.5V "AA" batteries, the instrument will provide a minimum of two years continuous operation before the batteries require replacement. A built-in low battery indication gives the operator a minimum of two months notice prior to the instrument's shut down.

If the *DT50* Pressure Gauges are to be used in potentially explosive environments specified to EEX ia IIC T4, the intrinsically safe option must be ordered for optimum safety.

SPECIFICATIONS

General

Case	304 St. steel with bezel
Case Diameter	100 mm
Protection Class	IP67
Window	Acrylic, Safety glass (option)
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
Ambient Temperature	-10...+70°C
Storage Temperature	-20...+85°C
EMC Immunity:	EN 50081-1
Emission:	EN 50082-2
Power	3 VDC; 2 x 1.5 V "AA Cells"
Battery Life	2 years in continuous operation
Low Power Warning	Display will alternate between temperature reading and BATT
Explosion Protection	EEx ia IIC, T4
Electrical Protection	Protected against reverse battery polarity

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

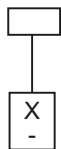
Thermocouple Sensor

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

ORDER CODES

Model DT50

Intrinsically Safe
Required
Not required



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



Min/Max Option
Not required
Required



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



INDUMART INC.

1-15 W. Pearce St., Richmond Hill, Ont. L4B 1H6, Canada
Phone: (905) 707-9998 Fax: (905) 707-8484 E-mail: Sales@Indumart.com