

DTI-1000

Digital Temperature Indicator and Reference Sensors



- **Wide temperature range**
- **Improve your accuracy**
DTI-1000: up to 0.005°C
DTI-1000 & STS sensor $\pm 0.03^\circ\text{C} \pm \text{LSD}$
- **Reliable Temperature Readings**
- **Dual Channel Inputs**
- **Specified Low Drifts**
- **Fast Response Time**
- **“True Ohm” Measurement**
- **Linearity**
- **Conversion to Temperature**
- **Reference Resistors**



Specifications

Input range:	
DTI-1000 A (Pt100 / Pt25):	0 Ω - 360 Ω
DTI-1000 B (Pt25):	0 Ω - 95 Ω
Accuracy 12 month use:	
DTI-1000 A:	\pm (6 ppm rdg + 1.4 m Ω)
DTI-1000 B:	\pm (6 ppm rdg + 0.7 m Ω)
Temperature range:	-200 $^{\circ}$ C to 750 $^{\circ}$ C
Temperature coefficient 0 $^{\circ}$C - 50 $^{\circ}$C:	0.8 ppm/ $^{\circ}$ C
Input channels:	2
Termination:	Goldplated LEMO / 4 mm banana test sockets
Resolution (user-selectable):	0.1, 0.01 or 0.001 $^{\circ}$ C/ $^{\circ}$ F/K/ Ω
Update rate (0.1 / 0.01 / 0.001$^{\circ}$):	2 / 3 / 12 seconds
Measuring current:	1 mA
Dimensions (L x W x H):	225 mm x 135 mm x 195 mm
Weight:	2.2 kg

STS Reference Sensors

Accuracy for DTI-1000 & STS

STS-050 sensor

-45 to 400 $^{\circ}$ C	\pm 0.060 $^{\circ}$ C
	\pm 0.070 $^{\circ}$ C

STS-100 sensor

-50 to 250 $^{\circ}$ C	\pm 0.030 $^{\circ}$ C
	\pm 0.045 $^{\circ}$ C
-50 to 320 $^{\circ}$ C	\pm 0.040 $^{\circ}$ C
	\pm 0.050 $^{\circ}$ C
-50 to 400 $^{\circ}$ C	\pm 0.060 $^{\circ}$ C
	\pm 0.070 $^{\circ}$ C
-50 to 650 $^{\circ}$ C	\pm 0.060 $^{\circ}$ C
	\pm 0.080 $^{\circ}$ C
-90 to 650 $^{\circ}$ C	\pm 0.080 $^{\circ}$ C
	\pm 0.110 $^{\circ}$ C

STS-102 cable sensor

-45 to 155 $^{\circ}$ C	\pm 0.040 $^{\circ}$ C
	\pm 0.070 $^{\circ}$ C



Functional

Temperature range:

STS-050	-50 °C to 400 °C
STS-100	-150 °C to 650 °C
STS-102	-50 °C to 155 °C

Accuracy:**STS-050**

Hysteresis:	0.01 °C
Long term stability at 0 °C:	0.014 °C
Repeatability:	0.005 °C

STS-100

Hysteresis:	0.01 °C
Long term stability at 0 °C:	0.014 °C
Repeatability:	0.002 °C

STS-102

Hysteresis:	0.01 °C
Long term stability at 0 °C:	0.025 °C
Repeatability:	0.002 °C

Operating conditions:

Sensor connection and cable (STS-100):	Max. 70 °C
Sensor connection (STS-102):	Max. 70 °C
Sensor cable (STS-102):	Max. 175 °C

Storage temperature:	- 20 °C bis 70 °C
Humidity:	0% bis 90% RH

