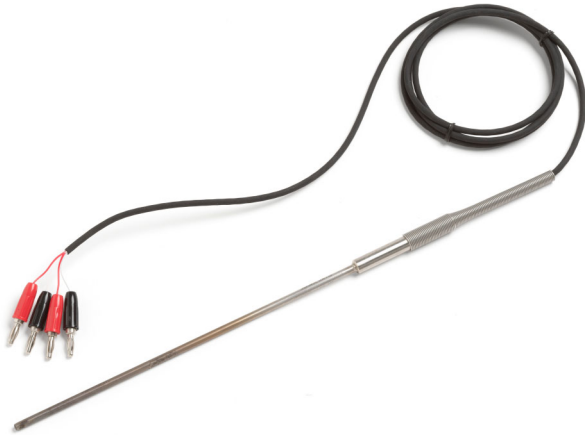# 100 Ohm RTD Temperature Probe

TP750 Data Sheet

Features & Benefits

- −200 °C to 300 °C Temperature Range
- Nominal 100 Ω Resistance

100 Ohm RTD Temperature Probe

The TP750 probe is manufactured using a coil suspension element design for increased shock and vibration resistance. The mineral-insulated sheath provides a minimum bend radius of 19 mm for flexibility and durability. The TP750 temperature probe is compatible with the DMM4050 digital multimeter.

Characteristics

Specifications

Characteristic	Description
Resistance	Nominal 100 Ω
Temperature Coefficient	0.00385 Ω/Ω °C nominal
Temperature Range	−200 °C to 300 °C (transition and cable temperature: 0 °C to 150 °C)
Drift Rate	+0.13 °C at 0 °C after 1000 hours at 300 °C
Sheath Material	316 stainless steel
Leads	Teflon™-insulated, nickel-plated stranded copper, 22 AWG
Termination	4-wire banana
Time Constant	Four seconds maximum for 63.2% response to step change in water moving at 3 fps
Bending Radius	19 mm (3/4 in.) except for 50 mm (2 in.) area of sheath near tip
Calibration	Includes manufacturer's NIST-traceable calibration and table with R vs. T values in 1 °C increments from −196 °C to 300 °C. Callendar – van Dusen coefficients included
Immersion	At least 100 mm (4 in.) recommended
Accuracy (includes calibration uncertainty and short-term stability)	±0.050 °C at −196 °C ±0.050 °C at 0 °C ±0.051 °C at 200 °C ±0.055 °C at 300 °C
Size	9 in. L × 3/16 in. diameter

Ordering Information

TP750
100 Ohm RTD Temperature Probe.

$C\epsilon$

Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.

Product(s) complies with IEEE Standard 488.1-1987, RS-232-C, and with Tektronix Standard Codes and Formats.

Tektronix®

Contact Tektronix:

ASEAN / Australasia (65) 6356 3900

Austria 00800 2255 4835*

Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777

Belgium 00800 2255 4835*

Brazil +55 (11) 3759 7627

Canada 1 800 833 9200

Central East Europe and the Baltics +41 52 675 3777

Central Europe & Greece +41 52 675 3777

Denmark +45 80 88 1401

Finland +41 52 675 3777

France 00800 2255 4835*

Germany 00800 2255 4835*

Hong Kong 400 820 5835

India 000 800 650 1835

Italy 00800 2255 4835*

Japan 81 (3) 6714 3010

Luxembourg +41 52 675 3777

Mexico, Central/South America & Caribbean 52 (55) 56 04 50 90

Middle East, Asia, and North Africa +41 52 675 3777

The Netherlands 00800 2255 4835*

Norway 800 16098

People's Republic of China 400 820 5835

Poland +41 52 675 3777

Portugal 80 08 12370

Republic of Korea 001 800 8255 2835

Russia & CIS +7 (495) 7484900

South Africa +41 52 675 3777

Spain 00800 2255 4835*

Sweden 00800 2255 4835*

Switzerland 00800 2255 4835*

Taiwan 886 (2) 2722 9622

United Kingdom & Ireland 00800 2255 4835*

USA 1 800 833 9200

* European toll-free number. If not accessible, call: +41 52 675 3777

Updated 10 February 2011

For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit **www.tektronix.com**

02 Oct 2011   3MW-24454-1

Tektronix®

www.tektronix.com