FLUKE®
Calibration

5730A-7003
Low Thermal Test Lead Set

Specification Sheet

Introduction

This document lists the electrical and mechanical specifications of the 5730A-7003 Low Thermal Test Lead Set (the Product). Two test lead cables are included. Each lead is a shielded, two-conductor cable with a separate guard/shield connection. The Product uses thermal emf material connectors that are lower than that used by standard test leads to minimize emf caused by the temperature difference between the ends of the leads.

⚠⚠ Warning

To prevent possible electrical shock, fire, or personal injury:

- **Do not use test leads if they are damaged. Examine the test leads for damaged insulation, exposed metal, or if the wear indicator shows.**
- **Do not use the Product if it is damaged.**
- **Disable the Product if it is damaged.**
- **Use the Product only as specified, or the protection supplied by the Product can be compromised.**

Specifications

Mechanical Specifications

Length

Two Test Leads ..... 48 in ±1 in (122 cm ±2.5 cm)
Outside Diameter ..... 0.3 in (7.6 mm) diameter
Connector Style ..... Spade lug sized for 1/4 in (6.35 mm) terminals
Connector Materials ..... Copper spade lug with gold plating over silver plating (contains no nickel)
Guard/Shield Connector ..... Nylon. Stackable banana plug construction, color is blue
Guard/Shield Connector Materials ..... Brass and beryllium copper with nickel plating

Cable Specifications

Cable Type ..... Two conductor shielded cable (Belden 8719 or equivalent)
Signal Conductors ..... 16 AWG tinned copper with 19 x 29 stranding
Guard/Shield Conductor ..... 18 AWG tinned copper
Cable Color ..... Outer jacket dark gray

Electrical Specifications

Thermal EMF ..... <1.3 µV per °C when measured while engaged in a five-way binding post of Tellurium Copper Alloy 145, half hard (Fluke PN 637892 or equivalent)
Leakage resistance between two conductors ... >1.0 x 10^{13} Ω per 100 ft at 45 °C and 75 % R.H.
Leakage resistance between either conductor and shield ..... >1.0 x 10^{13} Ω per 100 ft at 45 °C and 75 % R.H.
Leakage resistance between shield and outer surface of jacket ..... >1.0 x 10^{14} Ω at any point, at 45 °C and 75 % R.H.

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How to Contact Fluke Calibration

To contact Fluke Calibration, call one of the following telephone numbers:

- Technical Support USA: 1-877-355-3225
- Calibration/Repair USA: 1-877-355-3225
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31-40-2675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- China: +86-400-810-3435
- Brazil: +55-11-3759-7600
- Anywhere in the world: +1-425-446-6110

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