

80PK-11

Type-K Thermocouple Temperature Probe Instruction Sheet

Introduction

The 80PK-11 is a Type-K Thermocouple Temperature Probe designed for HVAC temperature measuring applications. The 20 inch PVC cable terminates with a Type-K thermocouple inside a 19.5 inch nylon cuff. The 80PK-11 can be used with any temperature measuring instrument that is designed to accept Type-K thermocouples and has a miniature connector input. The 80PK-11 is not suitable for liquid immersion but can work in humid to wet environments.

Warning

To avoid electrical shock, do not use this probe when voltages exceeding 24 V rms or 60 V dc are present. The probe tip is electrically connected to the output terminals.

Specifications

Type: K Special Grade (Chromel vs Alumel)

Measurement Range: -30 °C to 150 °C (-19.3 °F to 302 °F)

Accuracy: ± 1.5 °C (2.7 °F)

Measurement Time (Time Constant): 2 seconds

Maximum Voltage: 24 V ac rms or 60 V dc maximum for proper safe operation.

Maximum Temperature of Bead: 150 °C (302 °F)

Operating Temperature: 0 °C to 50 °C

Storage Temperature: -20 °C to 65 °C

Cable: Total Length: 1 m (40 in), 20 in cable, 19.5 in cuff
Insulation Material: Hytrel

Connector: Type: Yellow mini-thermocouple with 0.500 in pin
Material: Hytrel 4774
Maximum Temperature: 200 °C (392 °F)

Measurement Considerations

Instrument Compatibility

The 80PK-11 is designed to be compatible with any temperature measuring instrument that accepts Type-K thermocouples, has a miniature thermocouple connector, and has cold reference junction compensation. Accuracy of the temperature measuring instrument must be considered along with the 80PK-11 accuracy specification in order to determine the overall accuracy of the combination.

PN 2724595

August 2006, Rev.1, 12/2018

© 2006-2018 Fluke Corporation, All rights reserved.

All product names are trademarks of their respective companies.



Temperature Limitations

The 200 °C (392 °F) continuous temperature rating of the 80PK-11 is primarily determined by the Hytrel insulation. The bead alone may be momentarily subjected to higher temperatures without damage.

Media Limitations

Type-K Chromel-Alumel thermocouple wires are compatible with clean oxidizing atmospheres.

Operation

Caution

Repeated sharp bending can break the 80PK-11 lead. To protect the lead, avoid sharp bends, especially near the connector.

Use the 80PK-11 as follows:

1. Connect the probe to a compatible Type-K measuring instrument using the miniature thermocouple connector (0.500 in pin spacing).
2. Turn on the measuring instrument and select the appropriate range and scale.
3. Check the readout on the measuring instrument. With no heat or cold source applied to the sensor, it should display the ambient (room) temperature.
4. Wrap the probe firmly around the object you wish to measure. The readout will give you the source temperature.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that Service Center with a description of the problem.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

Fluke Corporation
P.O. Box 9090
Everett, WA 98206-9090
U.S.A.

Fluke Europe B.V.
P.O. Box 1186
5602 BD Eindhoven
The Netherlands