

80PK-11

Type-K Velcro Thermocouple Temperature Probe

Instruction Sheet

Introduction

The 80PK-11 is a Type-K Velcro 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 Velcro 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.

⚠ Marning

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 105 °C (-22 °F to 221 °F)

Display Accuracy: ± 0.1 °C (0.1 °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)

Cable:

Total Length: 1 m (40 in), 20 in cable, 19.5 in Velcro cuff

Insulation Material: Hytrel

Connector:

Type: Yellow mini-thermocouple with 0.500 in pin

Material: Hvtrel 4774

Maximum Temperature: 200 °C (392 °F)

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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.

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:

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