

Thermistor Input - World's first Programmable Thermalhead Transmitter

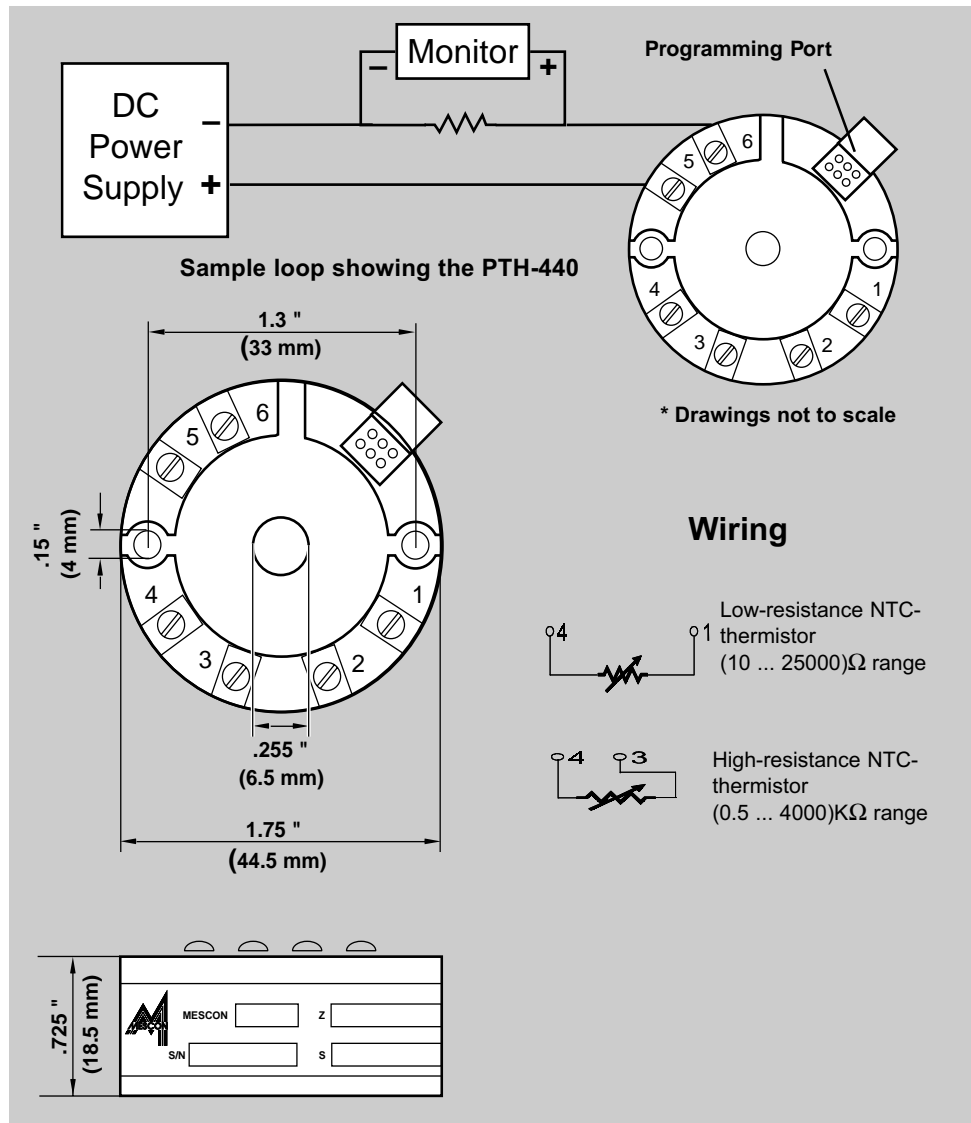
Model PTH-440 with JUST-PC™ TECHNOLOGY

The Mescon PTH-440 is a unique PC-programmable 2-wire transmitter family. The PTH-440 feature state-of-the-art microprocessor based design which enables full configuration with Mescon's JUST-PC™ Technology using the user-friendly MESCONfigurator™ Graphic User Interface. This combination eliminates the need for jumpers, calibrators, screw-drivers and hand-held programmers. The PTH-440 is the thermal head version of a comprehensive family of products. Other JUST-PC™ technology instruments are available for field mount, high density DIN rail and low density DIN rail with display applications.



STANDARD FEATURES:

- Fully Linearized output with respect to temperature.
- Custom Linearization for virtually all thermistor types and makes.
- 0.01KΩ to 2000KΩ input range.
- High Resolution (to 0.01°C) and stability.
- Full featured and highly accurate.
- JUST-PC™ Configuration technology.
- MESCONfigurator™, friendly Graphic User Interface software.
- 2000 Volts I/O isolation.
- RFI/EMI Protected, CE marked.
- DIN rail mounting adapter
- Small size thermal head



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Model PTH-440 with JUST-PC™ TECHNOLOGY

Configuration: All thermistor types and range parameters are easily configurable with Mescon's user friendly **JUST-PC™** Technology, which requires no power supply for configuration. Use the PA-400 programming adapter and the **MESCONfigurator™** Graphic User Interface software under Windows® operating systems and the PC's RS232 serial port.

SPECIFICATIONS

INPUT CONFIGURATIONS

Thermistors Most standard types and makes, and all special types with user-defined-tables and polynomials.
Linearization for YSI thermistors is standard, others available upon request. Optional - custom types, ranges and resolutions.

Resistance range From 0.02KΩ to 2000KΩ in two input sections.

Min/Max span 5°C min., 150°C max.

Output 4-20mA isolated loop powered.

Supply Voltage 9-40 VDC (@ no load). Reverse polarity protected.

Maximum Load $R_{max} = (V_{supply} - 9V) \div 20mA$

Operating Temperature -40°C to +85°C

Storage Temperature -55°C to +125°C

Humidity 0-95% RH, non-condensing.

Response Time 0.3 seconds, to 90% of input. (> 3 updates per second).

GENERAL SPECIFICATIONS (continued)

Damping Factors Programmable 0.0 to 64.0 seconds, to 0 - 120% of input range, using MESCONfigurator™ software interface.

Stability Better than ±0.1% of span for 12 months.

I/O Isolation 2000 VDC or peak AC.

RFI Protection < 1% effect of span at 20-1000 MHz and at field strength of 20V/m. $\text{C} \text{ } \text{E}$ marked.

PERFORMANCE SPECIFICATIONS

Output Resolution 0.015% of span (2.5μA).

Output (D/A) Linearity Better than 0.02% of output span.

Sensor Linearization* Better than 0.1°C most thermistors types and ranges.

Temperature Stability 0.01%/°C combined ZERO and SPAN.

Supply Voltage Effect: <±0.002% per Volt.

Calibration Automatic. Unit includes all of the calibration parameters. It performs periodic "zero", "span", self-test, and auto calibration.

*Sensor linearization is a function of thermistors' type and SPAN. 0.1°C Linearity is believed to be true for most known sensors types and spans of up to 100°C.

All specifications are subject to change without notice.

ORDERING INFORMATION

PTH - 4 4 0

Please request our product guide and calibration CD-ROM describing the rest of Mescon's products.

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