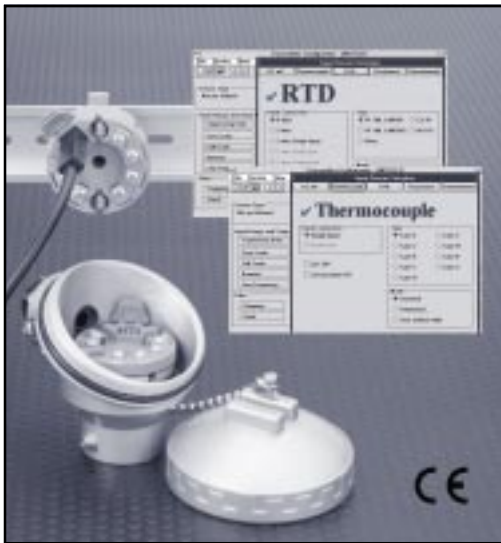


Programmable Thermalhead Transmitters

JUST-PC™ TECHNOLOGY

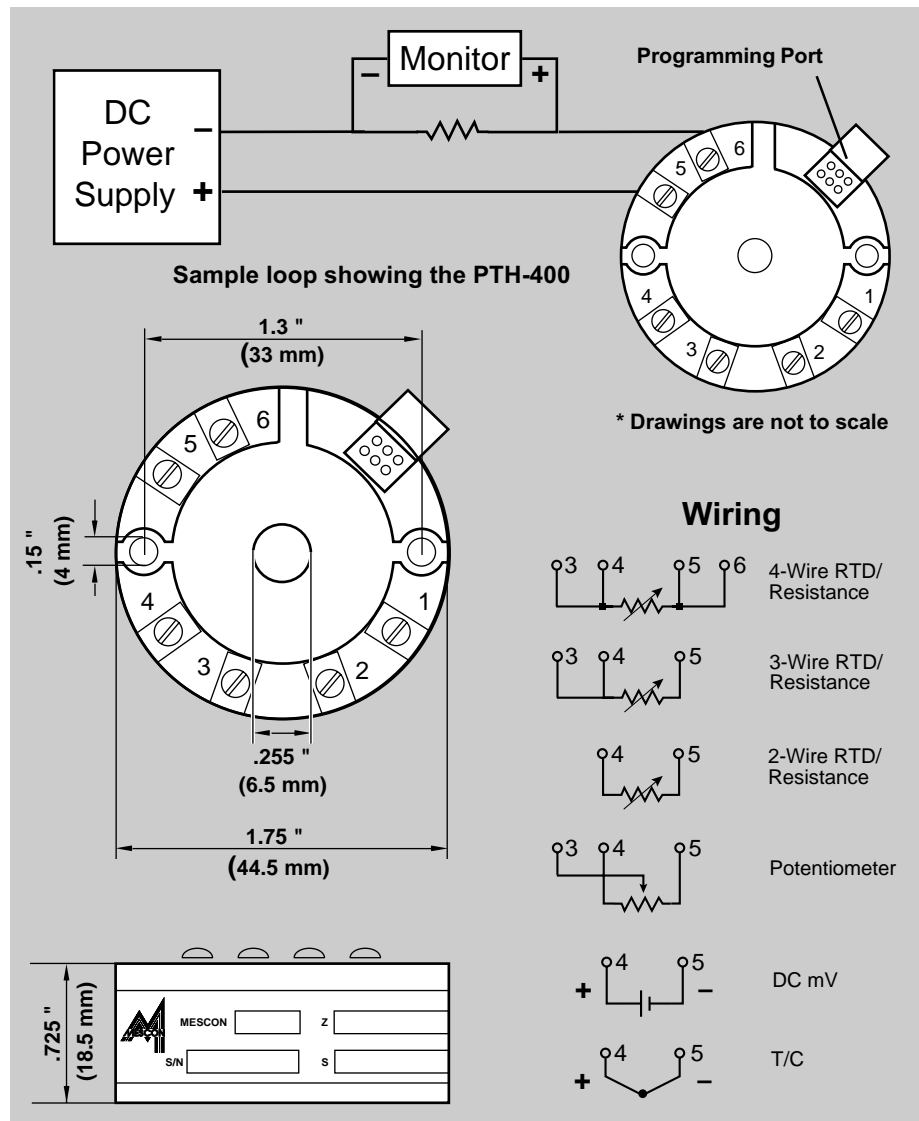
Series PTH-400

The Mescon PTH-400 series is a unique PC-programmable 2-wire transmitter family. The units feature a state of the art micro-processor based design which enables full configuration with Mescon's JUST-PC™ Technology using the MESCONfigurator™, user friendly configuration software. This combination eliminates the need for jumpers, calibrators, screw-drivers and hand-held programmers. The PTH-400 is the thermal head version of an entire 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:

- Full featured and highly accurate.
- JUST-PC™ Configuration technology. No Power Supply needed to program.
- MESCONfigurator™, user friendly configuration software.
- Full software programmability of sensor type and input range.
- Linearized 4-20mA current loop output for T/C, RTDs, mV, Potentiometers and Resistance Inputs.
- 2000 Volts I/O isolation.
- RFI/EMI Protected, CE marked.
- DIN rail mounting adapter
- Small size thermal head
- Custom Linearization in minutes



MESCON
Technologies, Inc.

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Programmable Thermalhead Transmitters

JUST-PC™ TECHNOLOGY

Series PTH-400

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

SPECIFICATIONS

INPUT CONFIGURATIONS

Thermocouples Most standard types and all special types using customer defined tables and polynomials.

RTD 2, 3, and 4 wire, Pt-100, Ni-110 and other RTDs. Includes Callandar-Van-Dusen adaptation and custom sensors linearization with user defined tables and polynomials.

Potentiometers to 20 K Ω

Resistance to 400 Ω

DC-mV -10 to 100 mV

GENERAL SPECIFICATIONS

Minimum Range 2 mV. Limited mostly by input signal quality.

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 $\pm 0.1\%$ 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. CE marked.

PERFORMANCE SPECIFICATIONS

Output Resolution 0.015% of span (2.5 μ A).

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

Sensor Linearization Better than 0.1°C for RTDs. Better than 0.2°C for T/C.

Cold Junction Compensation Automatic to within $\pm 0.7^\circ\text{C}$ for all T/C.

Temperature Stability 0.015%/°C combined ZERO and SPAN.

Supply Voltage Effect: $< \pm 0.003\%$ per Volt.

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

Input Linearity Better than 0.01% of span (mV input).

All specifications are subject to change without notice.

ORDERING INFORMATION

PTH - 4 X 0

PTH 4 X 0

0 = Temp
4 = Thermistor

PA - 400 Programming Adapter (RS232)

Please request our ordering and calibration diskette describing the rest of Mescon's products.

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