

# Pt-100 2, 3, & 4-Wire Input DIN rail 2-Wire & 4-Wire Transmitters TEMP 2/1 & TEMP 4/1



Mescon TEMP2/1 and TEMP4/1 transmitters provide the precision yet low cost circuitry, performing compensation, linearization, amplification and processing of signals from 2, 3 & 4-Wire Pt-100 RTD sensors. The output is linear with respect to the sensor's temperature. The 4-wire input circuitry provides near perfect compensation (and as a result, improved accuracy) for the effect of long lead wire resistance.

The units are powered by any standard industrial loop power supply and provide a 4-20mA output on a 2-wire transmitter system (TEMP2/1) or any standard current or voltage output on a 4-wire system (TEMP 4/1).

Mescon TEMP2/U and TEMP4/U are the universal transmitter versions which can be configured to any input range of Pt-100 RTD sensors (TEMP /1) or any type and range of thermocouple (TEMP /2).

## FEATURES:

- Low cost
- Compact size
- 4-wire RTD input and universal input
- Other RTD sensor types
- Din Rail mounting

## SPECIFICATIONS:

Input .....	Pt-100, 2,3, or 4-wire RTD. Other Pt, Ni, NiFe, Cu RTDs.
Input Temp Range .....	- 200°C (- 328°F) to + 850°C (1562°F)
Input Span .....	20°C Min. to 800°C Max.
Output (TEMP2/1) 2-wire ..	Current loop 4-20mA
(TEMP4/1) 4-wire ..	0...1...4...10...20mA, 0...1...2...6...10V
Linearity .....	Better than 0.1%, referred to the sensor's actual temperature.
Lead Wire Error (4-wire) ...	Negligible, for 4-wire sensors
(3-wire) ..	Better than 100:1 compensation
Temperature Stability .....	< ± 0.01% of range/°F (100°C span)
Power Supply Range .....	24 VDC 20%, polarity protected
Adjustments .....	± 25% on both ZERO and SPAN
Operating Temperature .....	- 20°C to 70°C (0°F to 160°F)
Mounting .....	DIN rail 35 mm

*All specifications are subject to change without notice.*



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# Pt-100 2, 3, & 4-Wire Input DIN rail 2-Wire & 4-Wire Transmitters TEMP 2/1 & TEMP 4/1

## Wiring Instructions:

1. Connect the sensor input leads according to the wiring information drawing. Observe for the proper RTD lead type.
2. Connect the output terminals and the power supply according to the wiring information drawing. Observe for proper polarity.

## Calibration and Adjustments:

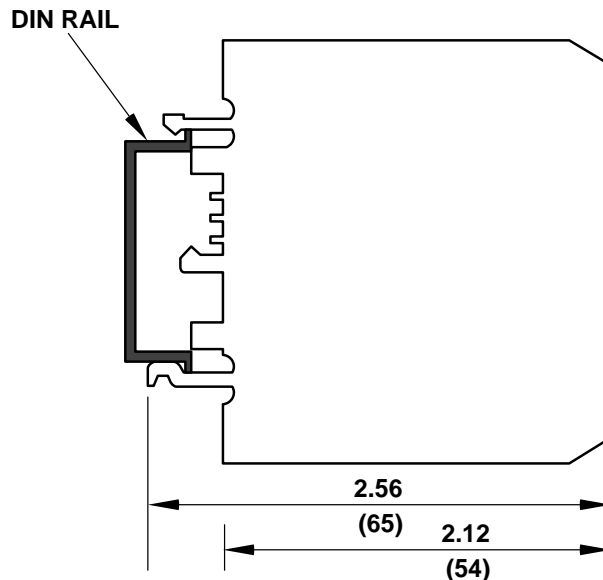
It is assumed that the unit undergoing calibration has been properly ranged at the factory or workshop.

1. Connect an RTD simulator to the TEMP X/1 input terminals according to the wiring diagram.
2. Connect the power supply terminals [1(+)] and 2(-)] and the output terminals to the proper 2-wire (TEMP 2/1) or 4-wire (TEMP 4/1) transmitter connection. Observe for proper polarity.
3. Set the input to the desired minimum signal and adjust the Zero pot until the output minimum signal (usually 4.00mA) is set.
4. Set the input to the desired maximum signal and adjust the Zero pot until the output maximum signal (usually 20.00mA) is set.
5. Repeat steps 3 & 4 until no further adjustment is needed.

## Mounting:

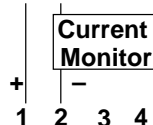
Series TEMP signal conditioners are designed for mounting on a standard 35 mm DIN rail. Simply place the lower rear rail groove onto the rail and push the unit into the rail until it snaps in its place. To dismount, pull the unit in a downward tilt movement away from the rail.

Dimensions are in inches (mm)

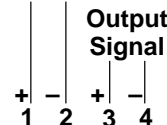


## Wiring Information

### Loop powered

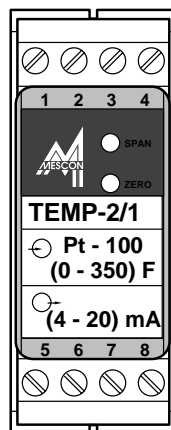
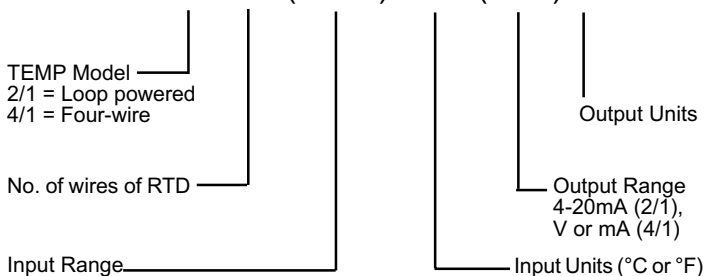


### Power

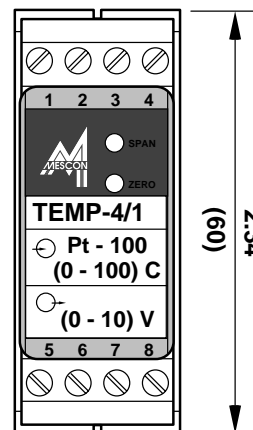


## ORDERING INFORMATION

TEMP 4/1 - 3 - (0-200) - °F - (0-10) V



RTD Input  
TEMP 2/1



TEMP 4/1

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

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