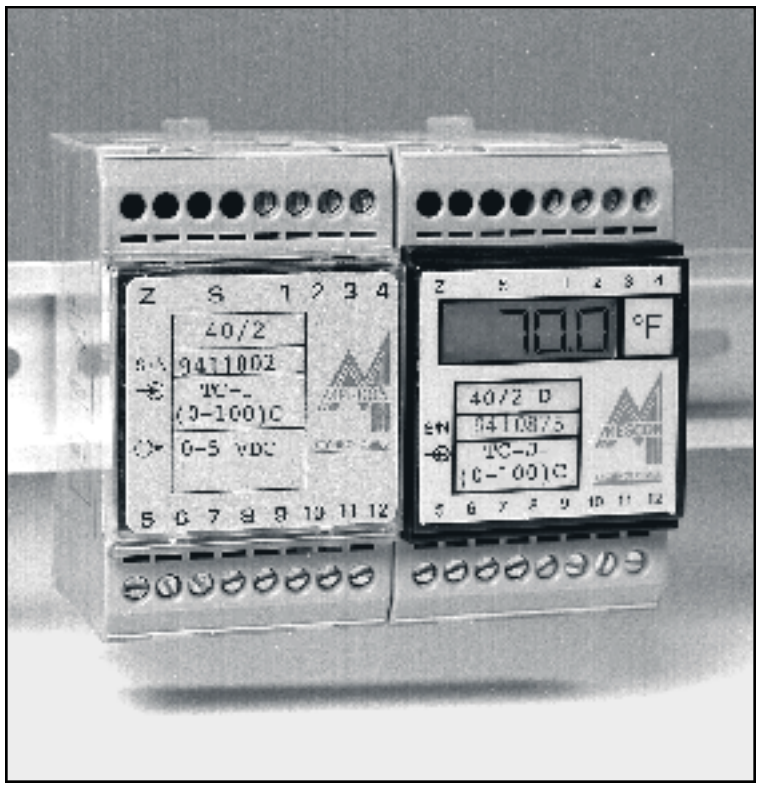
Thermocouple Input Signal Conditioners
Precision, Isolated, Universal
Model 40/2, 60/2, (L)



FEATURES:

- **4-Wire Signal Conditioners**
  40 Series - DC supply
  60 Series - AC supply
- **Input/Output/Supply isolation**
- **All known thermocouple**
- **User selectable type and range**
- **Over 1000 Volts Isolation**
- **Wide ranging ZERO and SPAN**
- **DIN rail mounting**

AVAILABLE OPTIONS:

- **T/C Input linearization**
- **3-1/2 digit backlit LCD indicator**
- **Explosion-proof housing**
- **NEMA 4X & NEMA 7 enclosures**

Models 40/2 and 60/2 are precision thermocouple signal conditioners which include triple galvanic isolation between their input, output and power supply circuits. They provide the necessary circuitry for amplification and processing of signals from Thermocouple sensors. The input circuit can accept all types of thermocouples and includes ice point reference junction compensation. Model 40/2L and 60/2L also provide input linearization to correct for the inherent thermocouple non-linearity. An optional LCD indicator is available for many models for local indication of the measured signal.

The 40/2 and 60/2 can be easily ranged without requiring special tools or board modifications. They are members of Mescon's family of advanced Universal Input Transmitters and Signal Conditioners which can easily be configured to accept other inputs such as RTD's, DC mV/mA/Volt and Potentiometers.

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Thermocouple Input Signal Conditioners
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Model 40/2, 60/2, (L)

SPECIFICATIONS:

Input	**All known thermocouple types**
Input Span	**Minimum 5mV, (10mV for rated accuracy)**
Outputs	**Voltage: 0-1V, 0-2V, 0-5V, 0-10V, ±5V, ±10V std. Current: 4-20mA, 0-20mA, 0-1mA, 1-5mA std.**
Burnout Detection	**Upscale (standard), Downscale (optional)**
Input Impedance	**>10MΩ on all ranges**
Reference Junction	**1°C accuracy for 0-50°C ambient**
Linearity	**Better than ±0.1%, referred to mV input**
Linearity L Option	**Better than ±0.25% referred to temp. for most ranges**
Temperature Stability	**≤ ±0.02% if span/°F (20mV span)**
C.M.R.R	**>120db, DC to 60 Hz**
Isolation	**1000VDC or peak AC (Input/Output/Supply)**
Adjustments	**>±25% for both Zero & Span**
Power Supply	**40/2: 24VDC ±20% 60/2: 115 or 230 VAC ±10%, 50/60Hz**
Operating Temperature	**-20°C to 70°C, (0°F to 160°F)**
Mounting	**DIN rail (35mm) or panel (with adapter)**
Humidity	**0-95%RH, non-condensing**

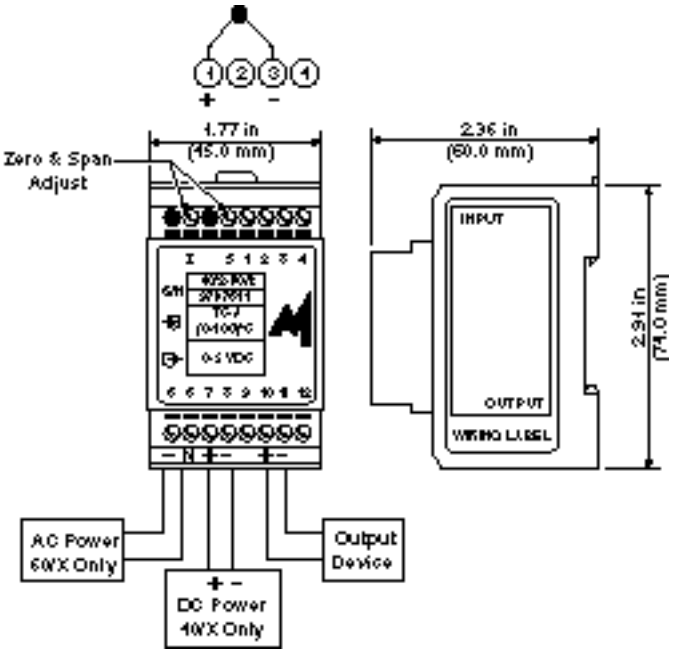
All specifications are subject to change without notice.

ORDERING INFORMATION

40/2 (L) (D) - X (XX-XXX) X - (X-XX) X - X

- Model (40/2 or 60/2)
- L for Optional Linearization
- D for Optional Display
- Thermocouple Type
- Input Range
- Units °F, °C
- Output Range
- Output Units
- 115/230 (60/2)

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



Wiring Instructions:

1. Connect the sensor/input leads according to the diagram above.
2. Connect the output leads to terminals 10 (+) and 11 (-).
3. 40/2 only - connect the DC power supply leads to teminals 7 & 8.
4. 60/2 only - connect the AC supply leads to terminals 5 & 6.

Calibration and Adjustments:

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

1. Connect a thermocouple simulator to the input terminals using specific thermocouple wires. Observe for proper polarity.
2. Connect a power supply to the power terminals. Observe for proper polarity.
3. Connect the input terminals to a precision digital indicator. Turn the power supply on. **For optimum performance, allow 15 minutes of warm-up time**.
4. Set the input to the desired minimum signal. Adjust the ZERO pot for the specified output low end.
5. Set the input for the desired maximum signal. Adjust the SPAN pot for the desired output high end.
6. Repeat steps 4 and 5 until no further adjustment is needed for the desired accuracy.

Note: If the unit can not be calibrated to the desired range, it should be returned to the workshop for proper ranging.

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