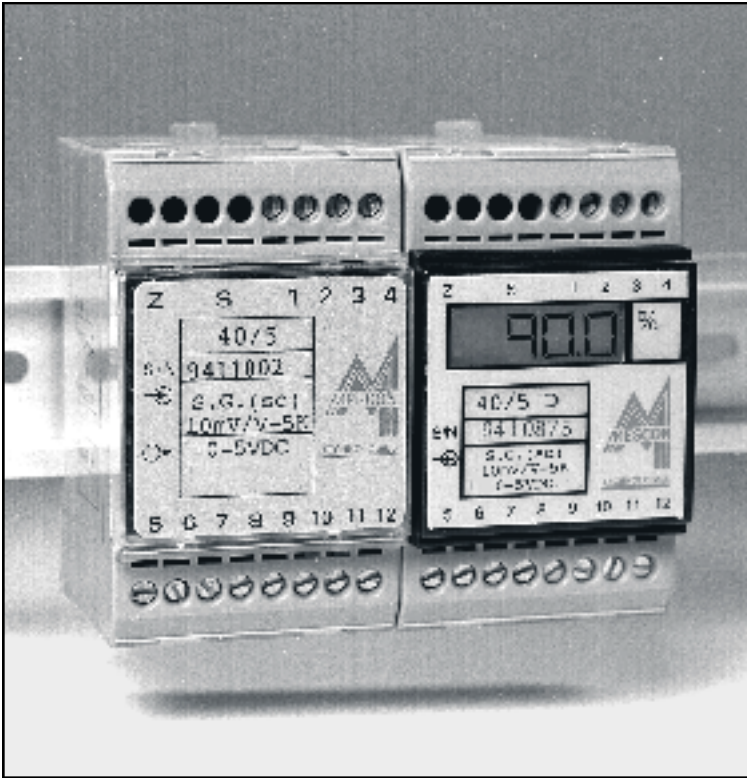


# Bridge (4-Arm) Input Signal Conditioners

## Precision, Isolated, Rangeable

### Model 40/5, 60/5, (L)



Models 40/5 and 60/5 are precision Bridge Input signal conditioners which provide 4-way galvanic isolation between their input, output, excitation and power supply circuits. They include the necessary circuitry for sensor

excitation, amplification and processing of signals from various Strain Gauges and other Bridge Sensors and signal sources. Galvanic isolation of the bridge excitation results in virtual insensitivity to the bridge common mode voltage variation, especially useful with solid state bridge designs.

An optional LCD indicator is available for some models for local indication of the output in engineering units.

The 40/5 and 60/5 can be easily ranged without requiring special tools or board modifications.

#### FEATURES:

- 4-wire signal conditioners  
Series 40 - DC Power Supply  
Series 60 - AC Power Supply
- 4-way total Isolation
- Over 1000 Volts Isolation
- Wide ranging ZERO and SPAN
- DIN rail mounting

#### AVAILABLE OPTIONS:

- 3-1/2 digits backlit LCD indicator
- Input sensor linearization
- NEMA 4X or NEMA 7 enclosure



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# Bridge (4-Arm) Input Signal Conditioners

## Precision, Isolated, Rangeable

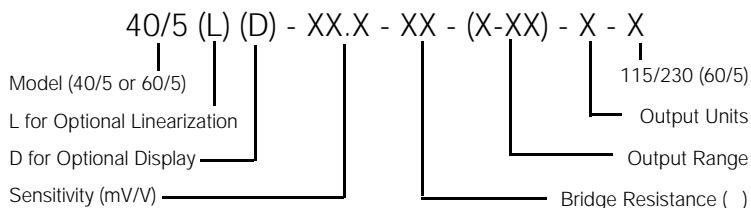
### Model 40/5, 60/5, (L)

#### SPECIFICATIONS:

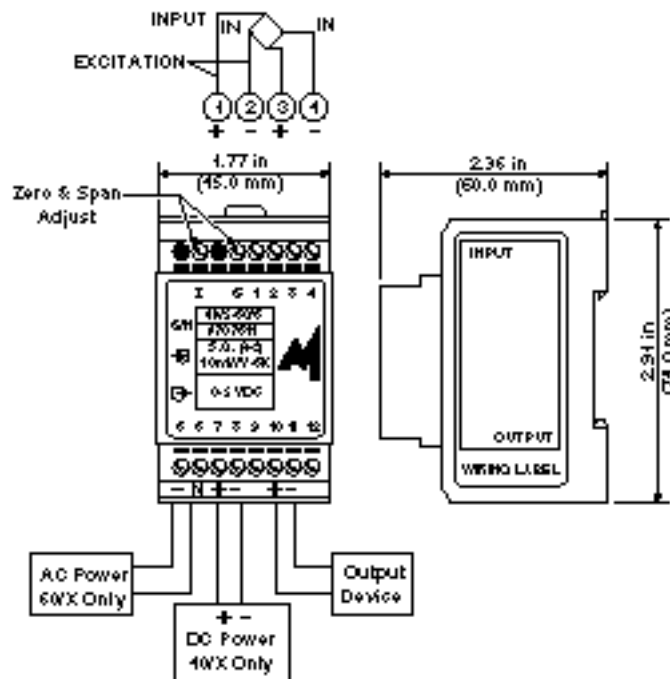
Input .....	4-Arm bridges. 2-Arm, optional
Bridge Resistance .....	350 to 20K . 120 bridges, optional
Sensitivity.....	2mV/V to 50mV/V, 1mV/V, optional
Input Impedance .....	10M for all ranges
Linearity (BSLF) .....	±0.03% of span
Sensor Excitation.....	5VDC to 12VDC Fixed
Temperature Stability .....	±0.01% of span/°F (20mV input)
Output .....	Voltage: 0-1V, 0-2V, 0-5V, 0-10V, ±5V, ±10V, std. Current: 4-20mA, 0-20mA, 0-1mA, 1-5mA, std.
C.M.R.R.....	>120db, DC to 60 Hz
Isolation.....	1000VDC or peak AC (Input/Output/Supply/Excitation)
Power Supply.....	40/5: 24VDC ±20% 60/5: 115 or 230 VAC ±10%, 50-60Hz
Adjustments.....	>±25% for both Zero & Span
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



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



#### Wiring Instructions:

1. Connect the sensor (Bridge) leads according to the diagram above. [ Excitation: 2 (+), 4(-). Input: 1 (+), 3 (-) ]
2. Connect the positive output lead to terminal 10.
3. Connect the negative output lead to terminal 11.
4. (60/5 only) Connect the specified AC power 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 Bridge simulator to the input terminals. Observe for proper polarity.
2. Connect the power supply to the power terminals (see diagram). Observe for proper polarity.
3. Connect the output terminals to a precision digital indicator. Turn the power supply on. **For optimum performance, allow 15 minutes for warmup.**
4. Set the input for the desired minimum signal. Adjust the ZERO pot for the specific output low end..
5. Set the input for the desired maximum signal. Adjust the SPAN pot for the specific output high end.
7. Repeat steps 4 and 5 until no further adjustment is needed for the desired accuracy.

Note: If the unit cannot be calibrated for the specified range, it should be returned to the workshop for proper ranging.



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