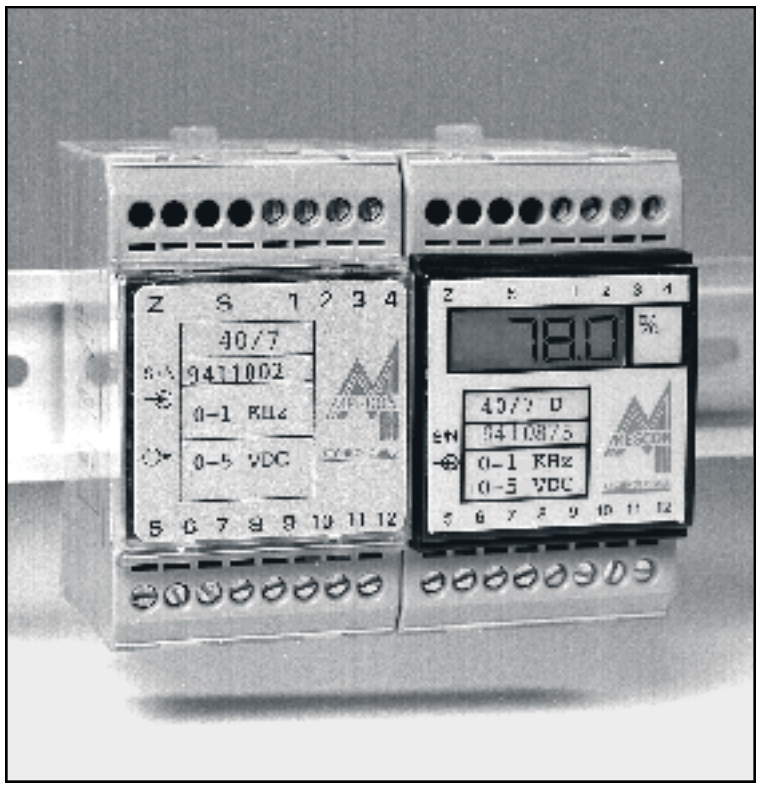
Frequency Input Signal Conditioners
Precision, Isolated, Rangeable
Model 40/7, 60/7, (L)



FEATURES:

- **4-wire signal conditioners**
  Series 40 - DC Power Supply
  Series 60 - AC Power Supply
- **Input/Output/Supply Isolation**
- **User rangeable input**
- **Over 1000 Volts Isolation**
- **Wide ranging ZERO and SPAN**
- **DIN rail mounting**

AVAILABLE OPTIONS:

- **3-1/2 digit backlit LCD indicator**
- **Line frequency measurement**
- **Flowmeter linearization**
- **DC power supply for proximity sensors**
- **NEMA 4X or NEMA 7 enclosure**

Models 40/7 and 60/7 are precision Frequency signal conditioners with galvanic isolation between their input, output and power supply circuits. They provide the necessary circuitry for amplification and processing of frequency/pulse signals from various sensors such as flowmeters, cams, encoders, tacho-generators, and many other types of rotating machinery. They provide a standard analog output signal which is linearly proportional to the input frequency or pulse rate. Model 40/7L and model 60/7L provide input linearization to correct for flowmeter K-factor variations. A DC power supply for proximity sensors is optional under special request.

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

The 40/7 and 60/7 can be easily ranged without requiring special tools or board modifications.

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Frequency Input Signal Conditioners
Precision, Isolated, Rangeable
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SPECIFICATIONS:

Input.....Frequency / Pulse

Output.....Voltage: 0-1, 0-2, 0-5, 0-10V, ±5V, ±10V std.
Current: 4-20mA, 0-20mA, 0-1mA, 1-5mA std.

Input Range.....0-50Hz min., 0-20KHz max.,
Optional special line frequency ranges 45-55Hz, 55-65Hz
(other ranges available upon request)

Linearity (BSLF).....Better than ±0.1% of span

Input Impedance.....≥400KΩ for all input ranges

Input Levels.....200mV min., 300V max. (peak voltage)

Response Time.....From 100mS for 20KHz to 500mS for 50Hz

Output Ripple.....<0.02% for 20KHz to <0.2% for 50Hz

Temperature Stability.....±0.02% of span/°F

Isolation.....1000 Volts DC or peak AC (input/output/supply)

Adjustments.....> ±25% for both Zero and Span

Power Supply.....40/7: 24VDC ±20%
60/7: 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

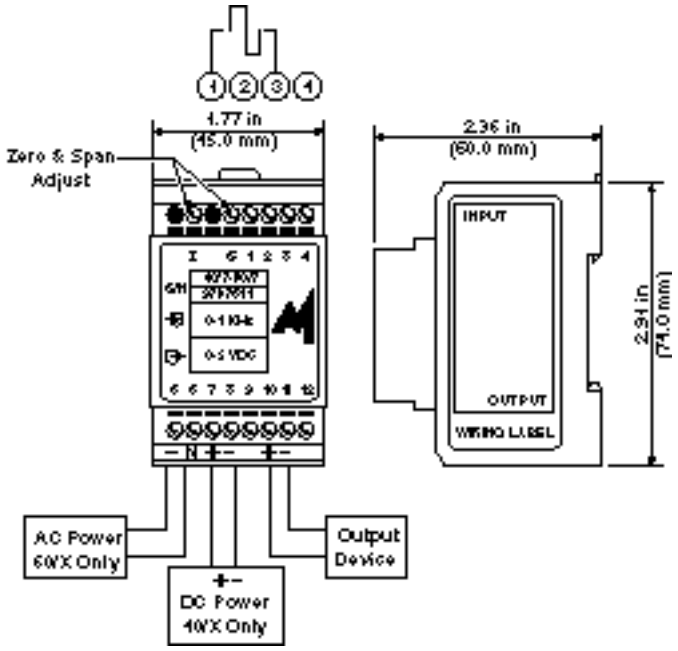
All specifications are subject to change without notice.

ORDERING INFORMATION

40/7 (L) (D) - (XX-XXX) - X - (X-XX) - X - X

- Model (40/7, 60/7)
- L for Optional Linearization
- D for Optional Display
- Input Range
- (Hz, KHz)
- Output Range
- Output Units
- 115/230V (60/7)

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. 40/7 only - connect the DC power supply leads to teminals 7 & 8.
4. 60/7 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 proper frequency source/simulator to the input terminals.
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 of warm-up time.**
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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