

MODEL OM-26 BRIDGESENSOR



Description:

The unit is a DIN Rail mount, self-contained DC powered module designed for load cell, strain gage, or single ended use. It contains a precision instrumentation amplifier, filtered output and a built-in 10VDC excitation supply capable of driving a 350 ohm bridge. The 0 to 30mV input range makes it compatible with most strain gage based load cell or pressure transducer outputs. It provides an output of 4 to 20mA. Connections are made via easily accessible screw clamp terminal blocks. Zero and Span adjustment potentiometers are located externally as well for easy access. Contact the factory for additional gain/output options.

Features:

- Low Cost
- Din Rail Mount
- Load Cell or Single Ended Application
- 0-30mVDC Input
- 4-20mA Output

| Amplifier | |
|---|---------------------|
| Gain Input for a 20mA Output | 10mV to 30mV |
| Linearity: 4 to 20mA Out | ±0.01 |
| Zero Adjust | 20% Max Output |
| Temperature Coefficient | 0.05% / °C |
| Input Offset Voltage Temperature Coefficient | ±70µV 0.7µV / °C |
| Common Mode Voltage | 0 to +5 VDC |
| Common Mode Rejection - DC | 100 dB |
| Input Noise 0.1Hz to 10Hz | 0.3µV pp Typ |
| Output | |
| Output Range | 4 to 20mA |
| Compliance Voltage | 5.5V Max |
| Loop Resistance | 250Ω Max |
| Frequency Response 2 Pole Filter | DC to 10Hz |
| Total RMS Gain Temperature Coefficient | 0.007% / °C |

| Bridge Supply | |
|---|--|
| Fixed Output | +10VDC ±1% |
| Temperature Coefficient | 0.05% / °C |
| Load Current | 30mA Max |
| Power Requirements | |
| Voltage | 18 to 26 VDC |
| Input Current (1 - 350 Ohm Bridge) | 55 mA |
| Environment | |
| Operating Temperature | 0°C to +55°C |
| Storage Temperature | -40°C to +80°C |
| Size | |
| Size (Not including Universal Foot for standard DIN EN Rails) | 1.65"H x 1.06"W x 3.78"L (42 x 27 x 96mm) |
| Weight | 3 oz. (85g) |
| Agency Approval | |
| UL | UL508, C22.2 Pending |

Load Cell Central follows a policy of continuous improvement and reserves the right to change specifications without notice. © 2015

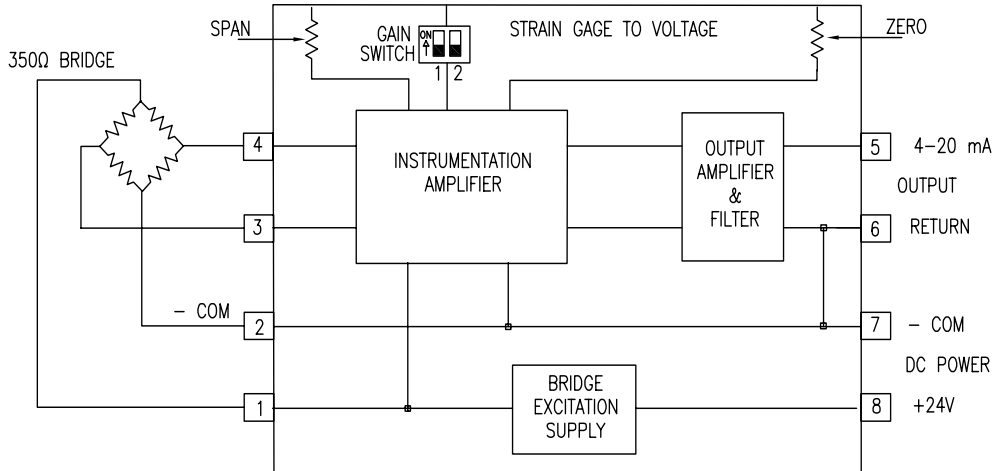
Load Cell Central
28175 Route 220
Milan, PA 18831

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Email: sales@800loadcel.com

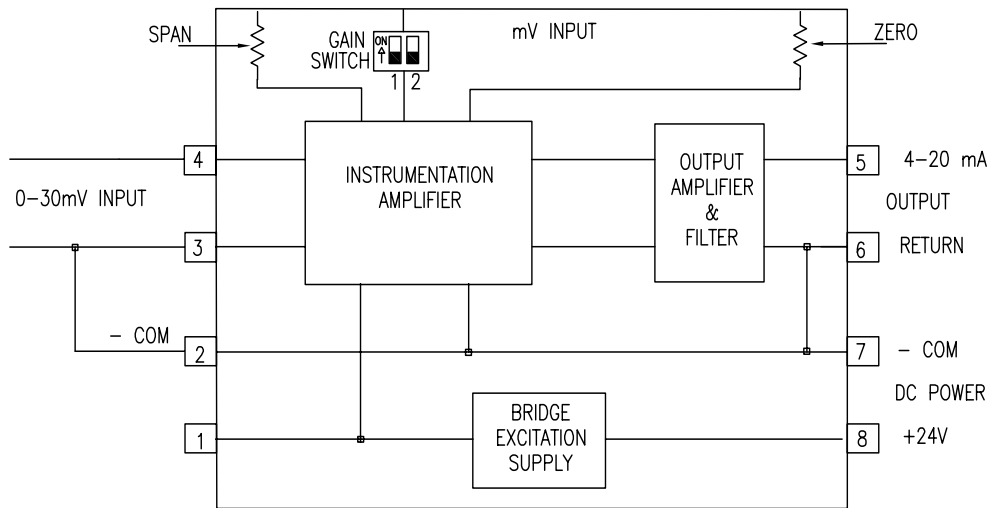
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FULL BRIDGE CONNECTION



SINGLE ENDED



Getting Started

1. Hook Up Procedure

- Connect the +out of the load cell to the +INPUT, pin 4.
- Connect the -out of the load cell to the -INPUT, pin 3.
- Connect the +excitation of the load cell to +EXCITATION, pin 1.
- Connect the -excitation of the load cell to -EXCITATION, pin 2.
- Connect the +24 VDC power supply to +24V, pin 8 and COM, pin 7.

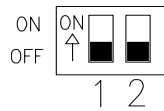
2. Turn on Procedure

- Verify that the hook up procedure is complete.
- Turn on the +24 VDC power source connected to the unit.

3. Calibration Procedure

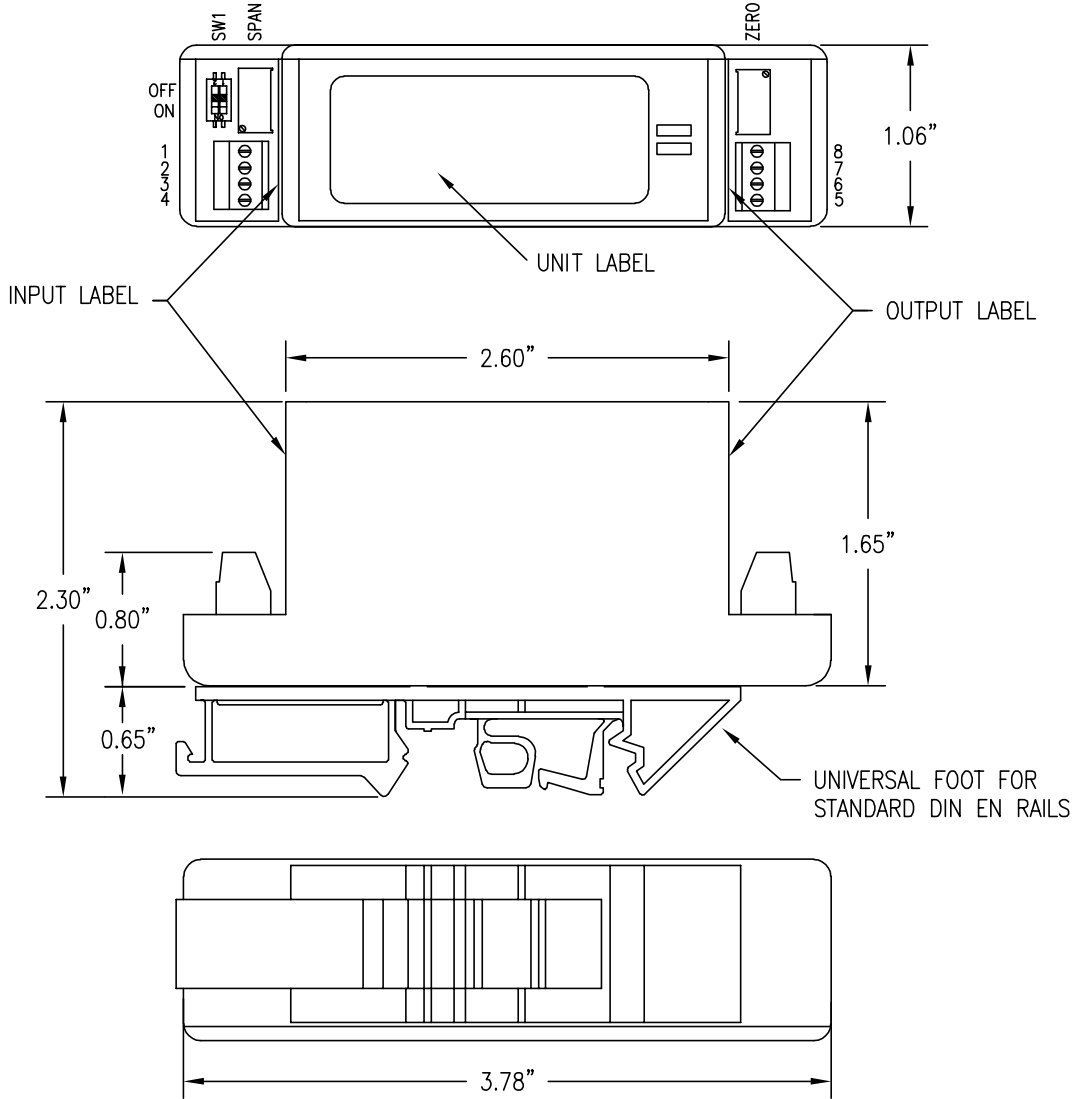
- Jumper the +INPUT and the -INPUT terminals, pins 3 and 4, together.
- Check the Gain Switch Table, and set SW1-1 and SW1-2 to the expected full scale output of the load cell.

- Connect a current meter across the output, pins 5 and 6.
- Adjust the Zero Adjustment potentiometer for the desired zero current.
- Remove the jumper from the +INPUT and -INPUT terminals.
- With no load on the load cell, readjust the zero output.
- Apply a known load to the load cell; in most cases it would be 100% of full scale.
- Adjust the SPAN ADJUSTMENT potentiometer for the desired full scale output current.
- Repeat steps F thru H until the desired settings are obtained.



| SW1-1 | SW1-2 | FULL SCALE LOAD CELL INPUT |
|-------|-------|----------------------------|
| OFF | OFF | 30 mV |
| ON | OFF | 20 mV |
| ON | ON | 10 mV |

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Mechanical tolerances unless otherwise noted:
 X.XX dimensions ± 0.020 inches
 X.XXX dimensions ± 0.005 inches

| TERMINAL | FUNCTION |
|--------------|-----------------|
| SW1-1, SW1-2 | GAIN SWITCHES |
| SPAN | SPAN ADJUSTMENT |
| 1 | +EXCITATION |
| 2 | - EXCITATION |
| 3 | - INPUT |
| 4 | +INPUT |

| TERMINAL | FUNCTION |
|----------|-----------------|
| 5 | +OUTPUT |
| 6 | COM |
| 7 | COM |
| 8 | +24V |
| ZERO | ZERO ADJUSTMENT |