Technical Data Sheet

Wheatstone Bridge Conditioner - MODWBx

Features

- Measure differential output of a Wheatstone bridge, e.g. Load-Cells.
- High accuracy, low temperature drift supply output.
- Rugged epoxy-filled enclosure, small size.
- Water tight mini sure-seal® connector.

Description

This conditioning module is used with Load-cell sensors, available in four models:

- MODWBD-101: 3 mV/V Tension & Compression
- MODWBD-151: 2 mV/V Tension & Compression
- MODWBS-201: 3 mV/V Single action
- MODWBS-301: 2 mV/V Single action

Installation

Setup:

- Connect V+, GND to Wheatstone Bridge Power Supply terminals and VIN+, VIN- to Wheatstone bridge signal output terminals (refer to page 4 for an example of connectivity)
- Connect the sensor to an analog input of the system: A, B or C. Carefully align indexing rib when mating mini sure-seal® connectors
- Do not expose the sensor to temperatures outside -40°C to 85°C
- Route the sensor cable away from sources of interference, such as ignition coils, plug leads, electronic modules or antennas
- Verify that the cable is not pinched or stretched by moving parts
- Do not bend cable with curvature radius smaller than 1.60″ [40 mm]

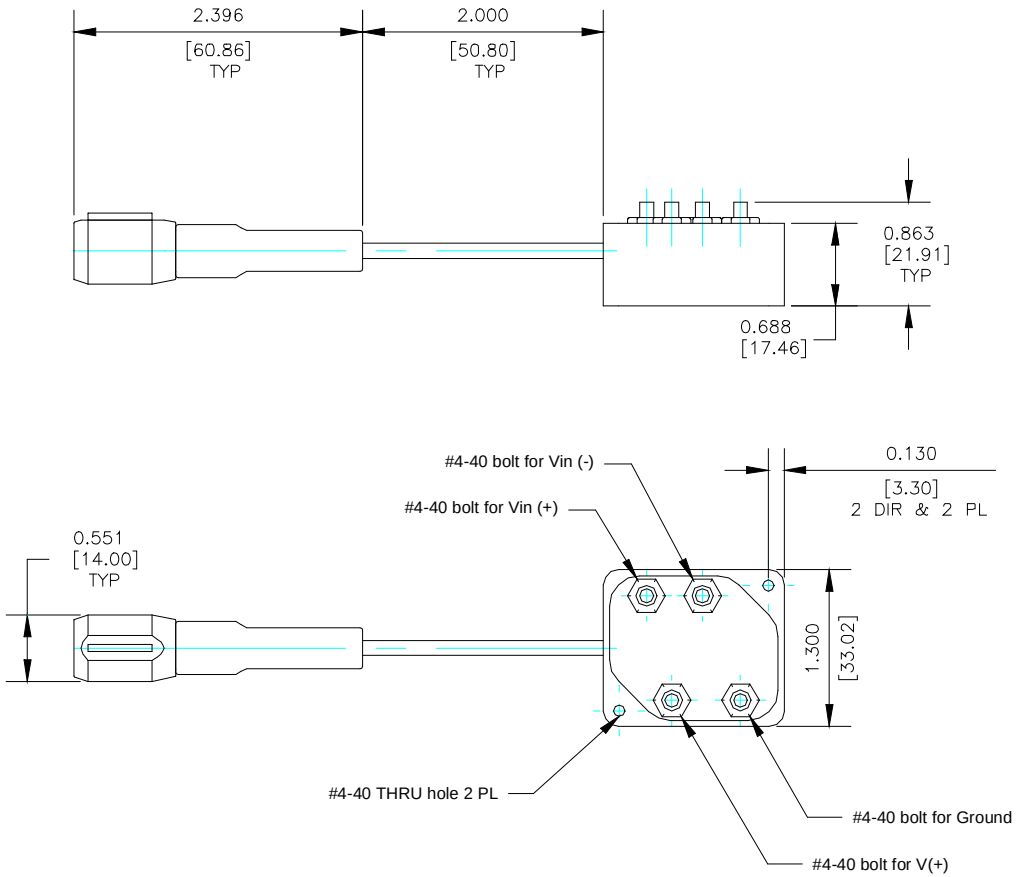
Software configuration:

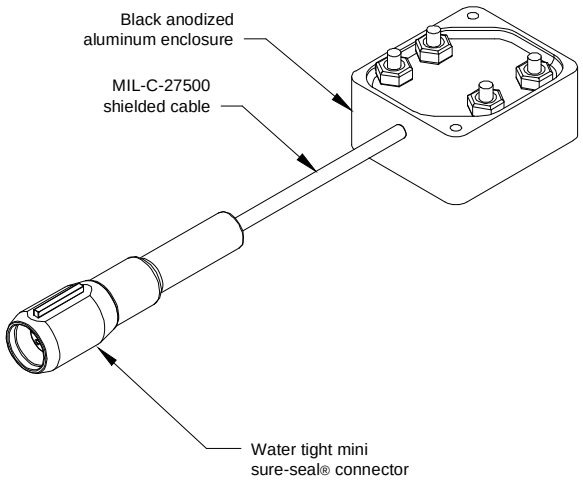
Refer to the section '*Real Time Calibration Wizard*' of the Analyzer User Guide.

Specifications

	Symbol	Min	Typ	Max	Units
Supply Voltage Supply Current	V_{in} I_{in}	11	 10	24	V mA
Output Voltage swing	V_{Out}	0		5.00	V
Bridge supply voltage temperature drift current	 V_{supply} T_{supply} I_{supply}	 7.490	 7.500 5	 7.510 30	 V ppm/°C mA
Operating temperature	T_{oper}	-40		85	°C
Weight	W		65 2.293		Grams oz

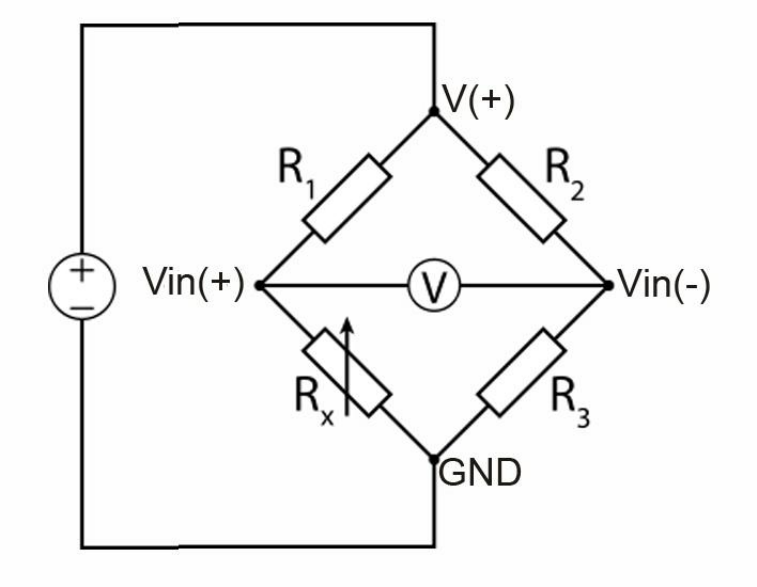
MODWBX





All dimensions are in inches [millimeters].

Example: Quarter bridge connectivity for strain gauge



R_1, R_2, R3 = non-variable hi precision resistors
R_x = Strain gauge
V(+), GND = Excitation Voltage, refer to page 3 to identify the appropriate terminal
Vin(+), Vin(-) = Signal Voltage, refer to page 3 to identify the appropriate terminal