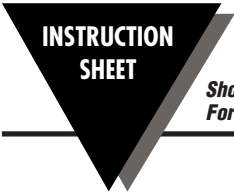




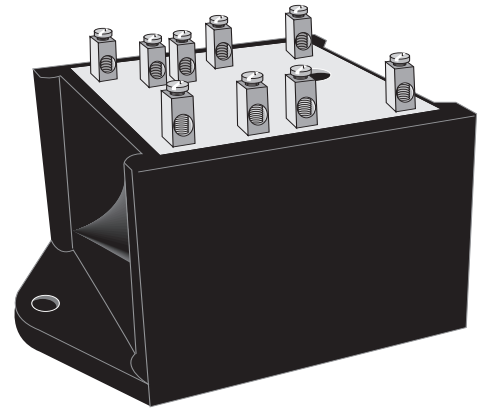
BCM-1

Bridge Completion Module

M1760/1106



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DESCRIPTION

The OMEGA® BCM-1 Bridge Completion Module provides a convenient means of completing the Wheatstone Bridge circuit used for strain gage measurements. The module can be used for quarter bridge measurements with 120 or 350 ohm gages or for half bridges with gages of any resistance. Quarter bridges with two or three wire hookup can be accommodated. In addition, a bridge balance adjustment potentiometer is provided to zero the bridge output. Screw terminals are provided for strain gage, excitation, and output signal connections.

The BCM-1 is constructed using precision resistors with 5 PPM/°C temperature coefficient for maximum temperature stability. The unit is completely encapsulated for use in rugged environments and can be mounted by using the screw holes provided in the baseplate.

MOUNTING

The BCM-1 module is equipped with a baseplate which provides holes for screw mounting. Where required, it can also be glued or secured in place with double-sided tape or Velcro.

SPECIFICATIONS

Maximum Excitation	
120 Ohm Bridge:	10 VDC
350 Ohm Bridge:	16 VDC
Temperature Limits:	-20 to 80°C (-4 to 176°F)
Temperature Effects:	±1.5 microvolts/volt/°C
Zero Adjust:	±6 mV/V
Resistor Tolerance:	±0.1%
Resistor TEMPCO:	5 PPM/°C
Dimensions:	3.0" W x 1.25" H x 1.0" D (50.8 mm x 31.8 mm x 25.4 mm)
Mounting Holes:	0.175" holes (2) on 2.5" center

BCM-1 HOOKUP

Connections to the BCM-1 are made using the screw terminals on the top of the unit using stripped wires. One side has four terminals used for excitation and signal output connections. The excitation voltage is connected to the outer terminals labeled +EX and -EX. The readout device is connected to the two center terminals which are labeled + and - Vout.

Connection of the strain gages to the BCM-1 depends on the particular application. For the proper hookup, refer to Figures 1-3.

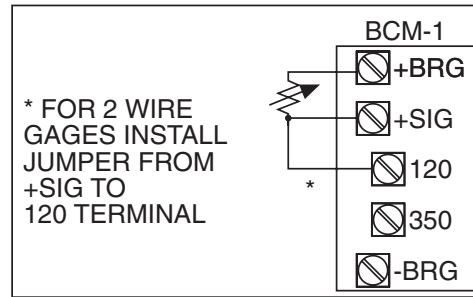


Figure 1. 1/4 Bridge 120Ω Hook-up

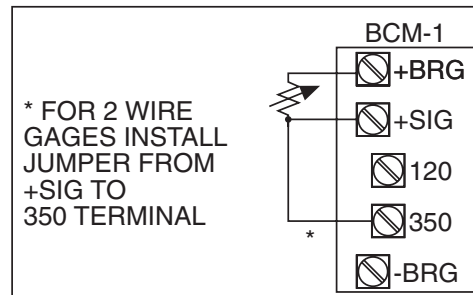


Figure 2. 1/4 Bridge 350Ω Hook-up

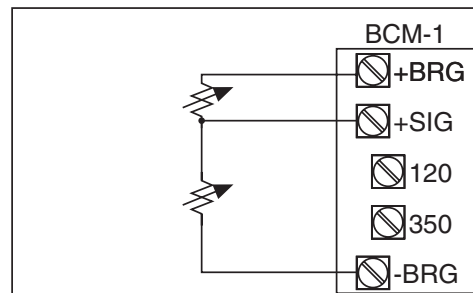


Figure 3. 1/2 Bridge Hook-up



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