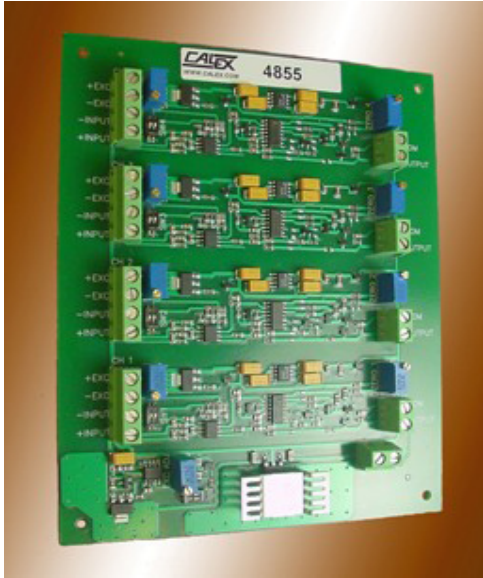


MODEL 4855 BRIDGESENSOR



Description:

The unit is a 4 channel DC powered module designed for load cell, strain gage, or single ended use. It consists of 4 individual amplifier channels and an adjustable excitation supply. Each channel contains a precision instrumentation amplifier with individual Zero and Span adjustments, and a filtered 4-20 mA output. The 0 to 30mV input range of each channel makes them compatible with most strain gage based load cell or pressure transducer outputs. The excitation supply is designed to drive four 350 ohm load cells and is adjustable from 5 to 10 VDC.

Option:

Add: (-W4) to model number to be mounted in a NEMA enclosure.

Features:

- Low Cost
- Load Cell or Single Ended Application
- 4 Individual Channels
- 0-30mVDC Input per Channel
- 4-20 mA Output per Channel
- Adjustable Excitation Supply

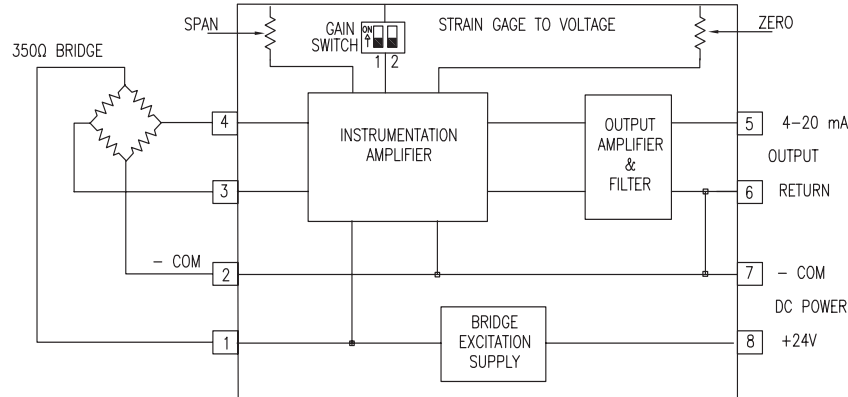
Amplifier (per channel)	
Gain Input for a 20mA Output	10mV to 30mV
Linearity: 4 to 20mA Out	±0.01%
Zero Adjust	30% Max Output
Temperature Coefficient	0.05% / °C
Input Offset Voltage Temperature Coefficient	±70µV 0.7µV / °C
Common Mode Voltage	0 to +5 VDC
Common Mode Rejection - DC	100 dB
Input Noise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

Bridge Supply	
Adjustable Output	5-10 VDC
Temperature Coefficient	0.05% / °C
Load Current	115 mA Max
Power Requirements	
Voltage	18 to 26 VDC
Input Current (4 - 350 Ohm Bridges)	215 mA
Environment	
Operating Temperature	0°C to +55°C
Storage Temperature	-40°C to +80°C
Weight	3.4 oz. (97g)
Agency Approval	
UL	UL508, C22.2 Pending
Size	
Board Assembly	5.75"H x 4.65"W
Optional Nema Enclosure	8"H x 6"W x 3.50"D

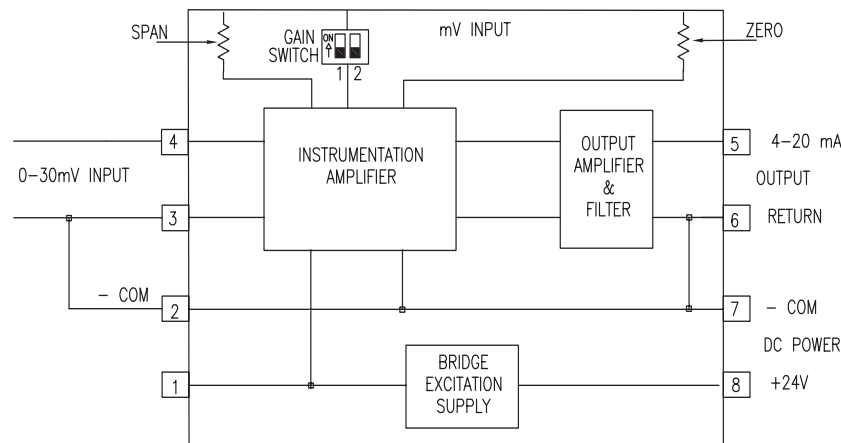


MODEL 4855 BRIDGESENSOR

FULL BRIDGE CONNECTION

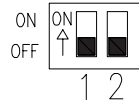


SINGLE ENDED



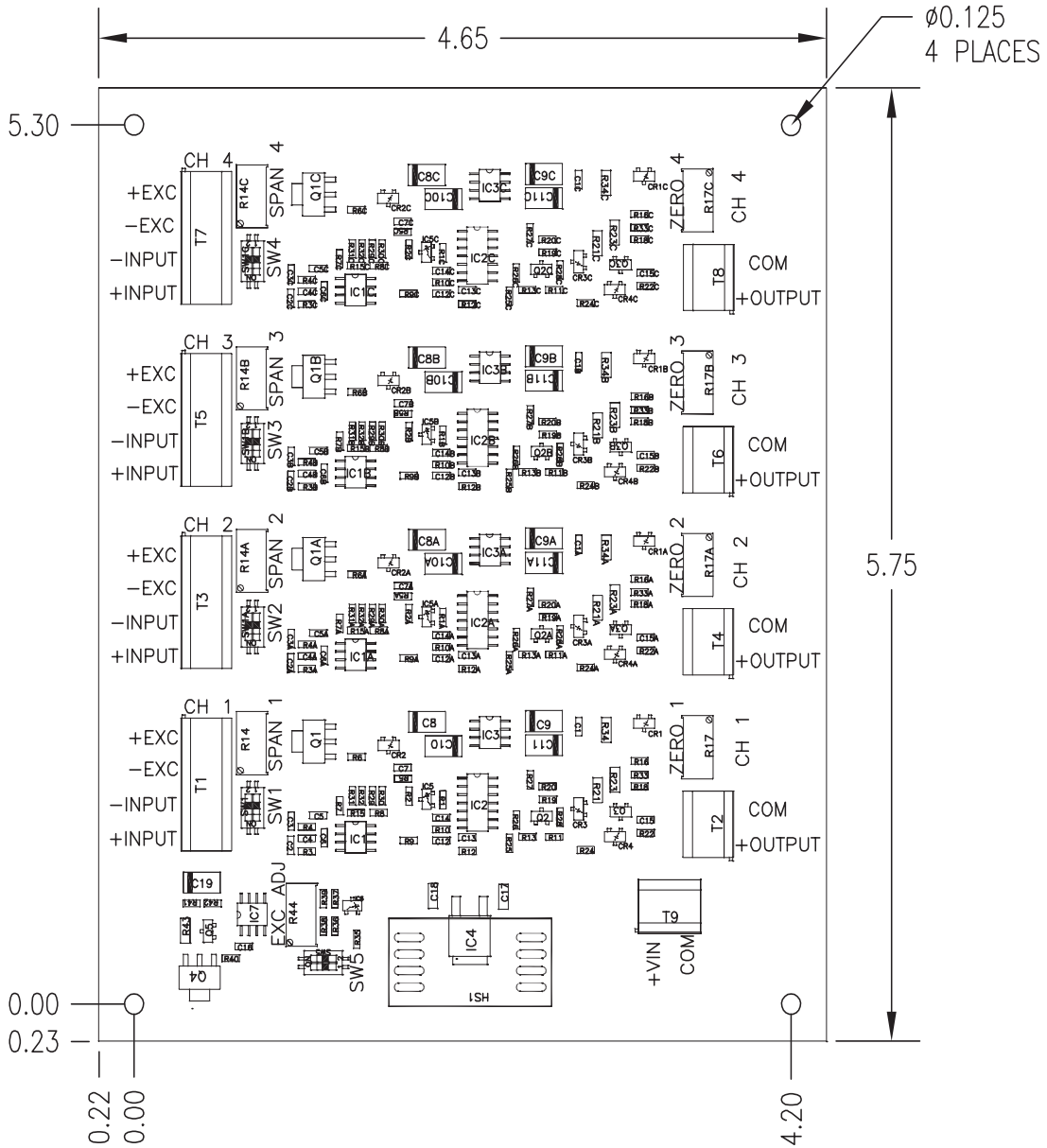
Getting Started

1. Connection Procedure
 - A. Connect the +out of the load cell to the +INPUT of the channel being used.
 - B. Connect the -out of the load cell to the -INPUT of the channel being used.
 - C. Connect the +excitation of the load cell to +EXCITATION, of the channel being used.
 - D. Connect the -excitation of the load cell to -EXCITATION, of the channel being used.
 - E. Repeat steps A thru D for each channel
 - F. Connect the +24 VDC power supply to +Vin and COM.
 - G. Adjust the Zero Adjustment potentiometer of the channel being adjusted for the desired output.
 - H. Remove the jumper from the +INPUT and -INPUT terminals.
 - I. With no load on the load cell, of the channel being adjusted, readjust the no load output.
 - J. Apply a known load to the load cell; of the channel being adjusted, in most cases it would be 100% of full scale.
 - K. Adjust the SPAN ADJUSTMENT potentiometer, of the channel being adjusted, for the desired full scale output.
 - L. Repeat steps F thru H until the desired settings are obtained.
 - M. Repeat the Calibration procedure for each channel being adjusted.
2. Turn on Procedure
 - A. Verify that the hook up procedure is complete.
 - B. Turn on the +24 VDC power source connected to the unit.
3. Calibration Procedure
 - A. Jumper the +INPUT and the -INPUT terminals of the channel to be adjusted.
 - B. Check the Gain Switch Table, and set Switches for the channel being adjusted, to the expected full scale output of the load cell. (i.e. SW1-1 and SW1-2 for Channel 1.)
 - C. Connect a current meter across the output +OUTPUT and COM terminals of the channel being adjusted.



SW1-1	SW1-2	FULL SCALE LOAD CELL INPUT	
OFF	OFF		30 mV
ON	OFF		20 mV
ON	ON	10 mV	
SW5-1 SW5-2		EXCITATION SUPPLY	
OFF	OFF	10 VDC	
OFF	ON	5 VDC	

MODEL 4855 BRIDGESENSOR

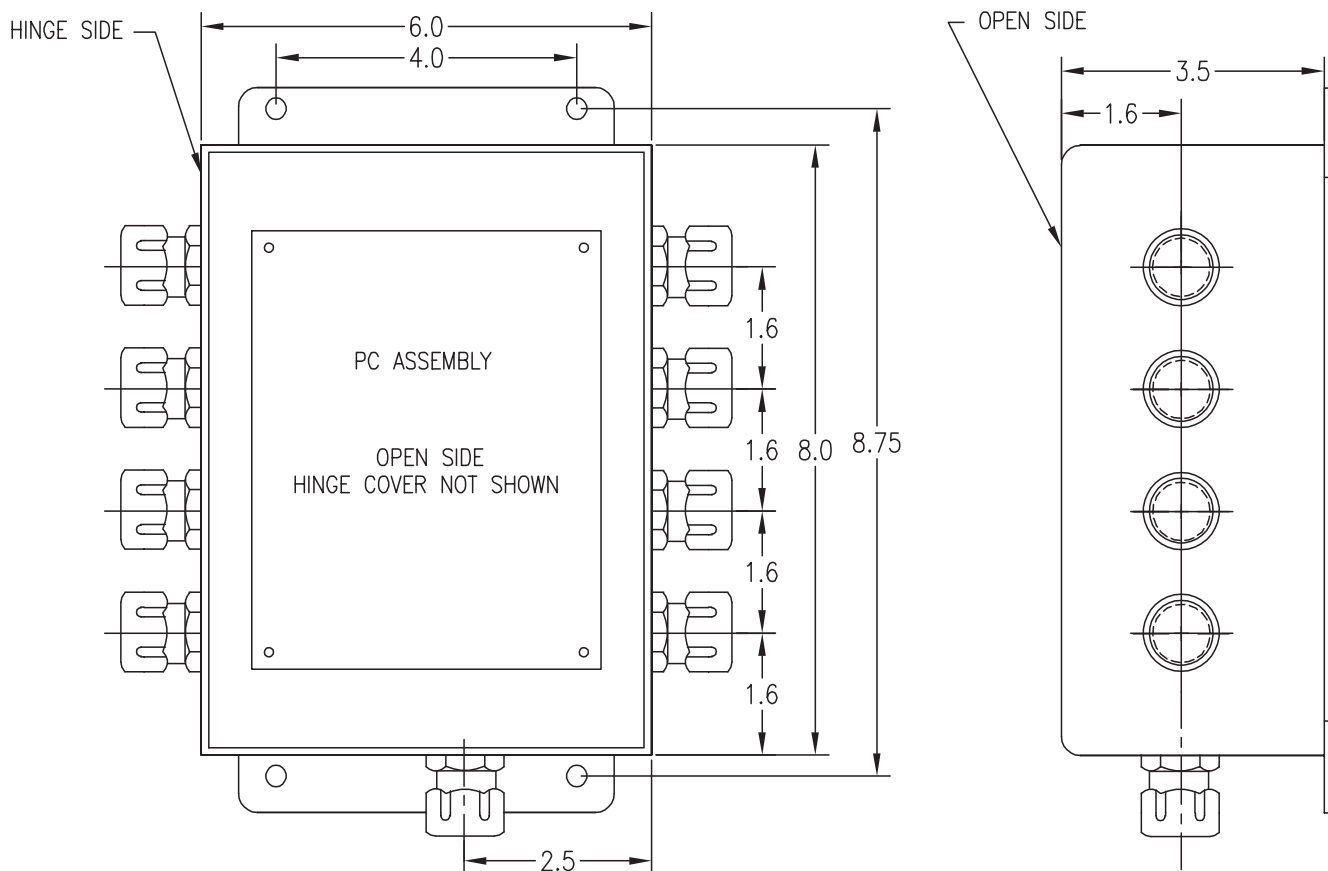


Mechanical tolerances unless otherwise noted:

X.XX dimensions ± 0.020 inches
 X.XXX dimensions ± 0.005 inches

Size	
Board Assembly	5.75"H x 4.65"W

MODEL 4855 BRIDGESENSOR



Mechanical tolerances unless otherwise noted:

X.XX dimensions ± 0.020 inches
 X.XXX dimensions ± 0.005 inches

Size	
With Optional NEMA Enclosure	8"H x 6"W x 3.50"D