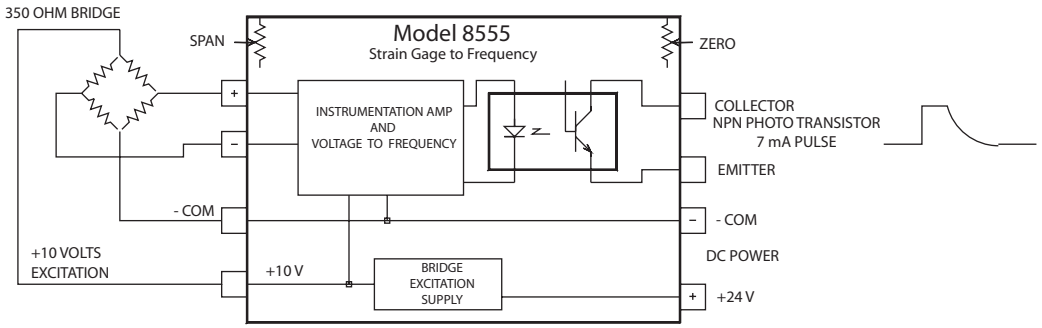
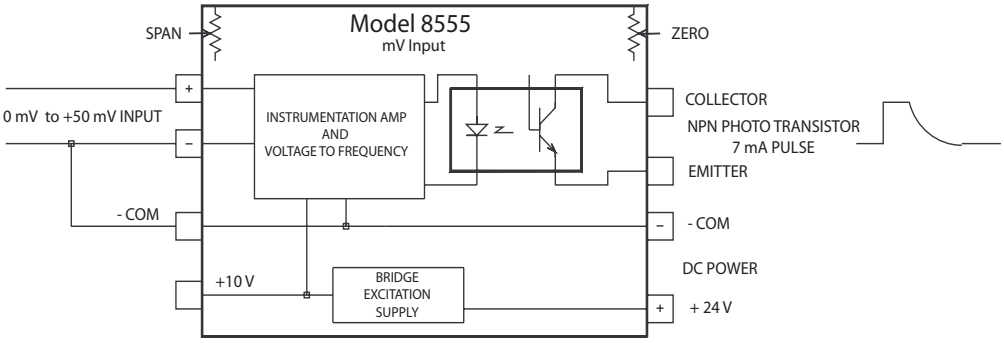
Model 8555
Strain Gage to Frequency

Model 8555 analog to frequency converter offers a cost effective solution for a single or multiple channel PLC I/O system. It is designed to operate into PLC high speed counter inputs. The input range of 0 to 50 mV makes the 8555 compatible with most strain gage based load cell or pressure transducer outputs. The built-in 10V excitation supply is capable of driving one 350 ohm bridge. The 8555 output for all modules is linear to 0.01% with a very high accuracy of better than 0.1%. The output is an isolated floating optocoupler transistor which provides DC isolation from the input and DC power. Connections are made easily accessible with screw clamp terminal blocks.

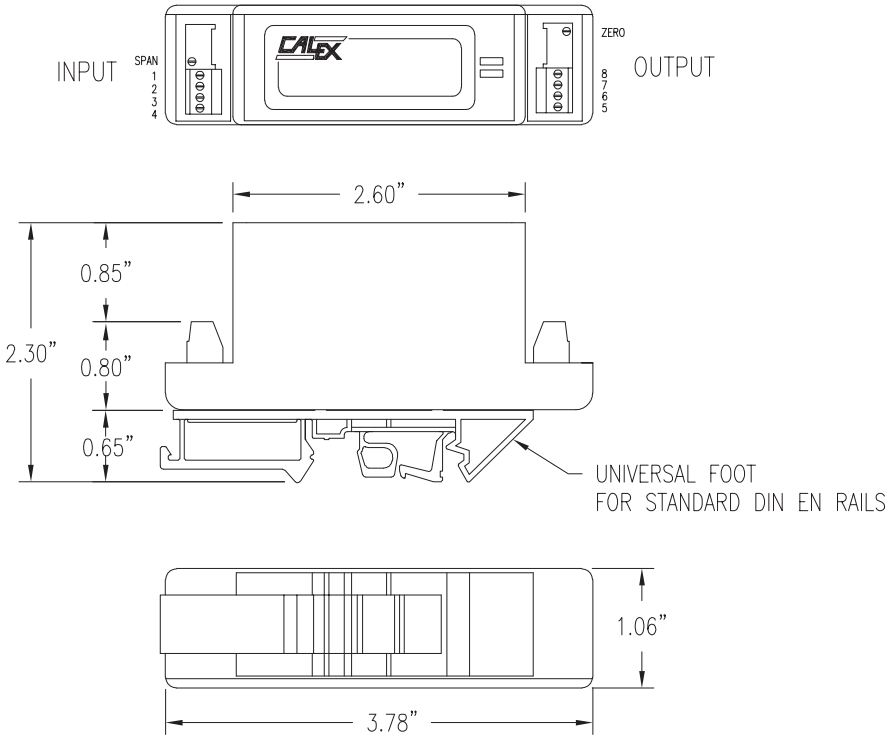
FULL BRIDGE CONNECTION



SINGLE ENDED



Model	8555
Input	0 to 50 mV Differential or Single Ended Single
Resistance	1000 Mohm
Current	10 nA
Common Mode	0 to +5 Volts
Output	0 to 5 kHz floating Optocoupler Transistor 7 mA Pulse - 50 µSec Width
Resolution	10 µVolts, 12 Bits
Bridge Excitation	10 Voltes for One 350 Ohm Bridge
Power Requirements	24 VDC @ 45 mA
Environment Operating Storage	 0ºC to +55ºC -40ºC to +80ºC
Size (Not including universal foot)	1.65”H x 1.06”W x 3.78”L (42 x 27 x 96 mm)
Weight	3 oz (85 grams)
Agency Approvals	UL508, C22.2 No 14-M91, UL1604, C22.2 No 213-M1987



	MODEL 8555
PIN	FUNCTION
1	+ SIGNAL
2	- SIGNAL
3	- COM
4	+ EXCITATION
5	COLLECTOR
6	EMITTER
7	COM
8	+24 VDC

Field Calibration:

1. Connect up the strain gage and power.
2. Select Full Scale Input Range.
3. Apply Zero load to strain gage.
4. Adjust Zero potentiometer for 0 Hz.
5. Apply full scale load to strain gage.
6. Adjust Span potentiometer for 5000 Hz (or desired full scale frequency.)
7. Repeat steps 2 through 5 as necessary.