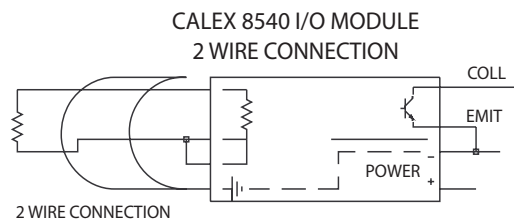
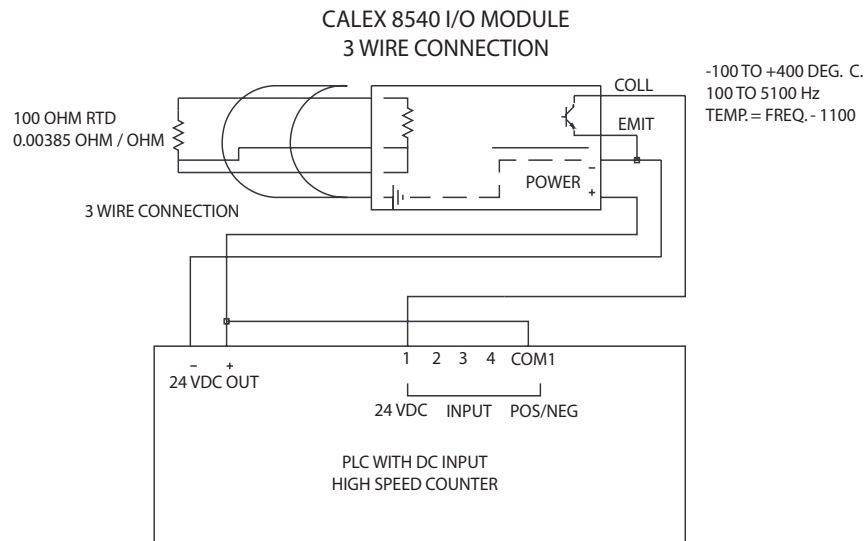




**Model 8540** RTD to frequency converter is designed to operate into a common 24 volt, 7mA PLC high speed counter input. It's output is an isolated optocoupler transistor and provides DC isolation from the input and DC power. The 8540 will operate with a DC supply of 15 VDC to 26 VDC at 37 mA.

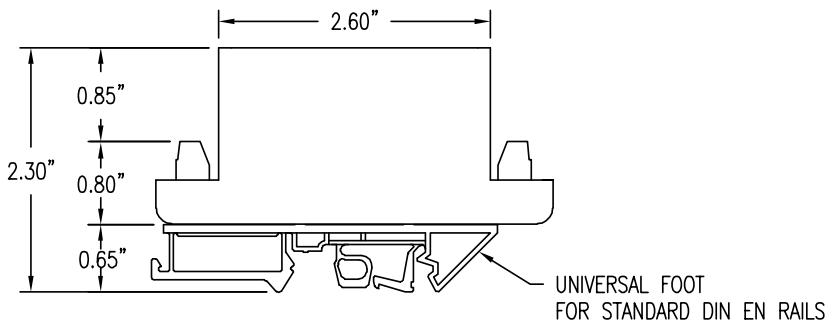
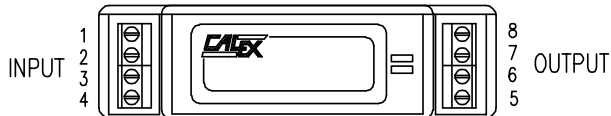
The model 8540 has compensation for the non-linear characteristic of the platinum 100 ohm RTD and is calibrated to the European  $\alpha=0.00385$ . The output frequency is 100 Hz at  $-100^{\circ}\text{C}$  to 5100 Hz at  $+400^{\circ}\text{C}$  providing 0.1 degree or 12 bit resolution. The linearization is accurate to 0.5 degree over the 500 degree span.

The module is housed in a plastic housing with a U-foot for mounting on standard DIN rails. The unit's dimensions, excluding the mouning foot, are 1.65"H x 1.06"W x 3.78"L. Connections are made to screw clamp terminal blocks.



# Model 8540

Model	8540
Input	Type PT100E -100 to +400°C 100 Ohm Platinum RTD European $\alpha = 0.00385$ 2 or 3 wire Connection
Calibration	$\alpha = 0.00385$
Output	100 Hz at -100°C to 5100 Hz at 400°C (Temp. in Tenths = Freq. -1100)
Resolution	0.1°C for 1 second Time Base 12 Bits
Accuracy	$\pm 0.5^\circ\text{C}$ plus RTD conformity
Temperature Coefficient 0°C to 55°C Ambient	$\pm 0.01\%$ / °C Typical
RTD Current	1 mA Typical
Output Source	Floating Optocoupler Transistor, 7mA Minimum Current
Pulse Width	50 $\mu\text{s}$ Typical
Response Time	0.1 second Typical
Isolation Input to Output Transistor	700 Volts DC 5 pF
Power Requirements	
Voltage	24 Volts Nominal      15 to 26 Volts DC
Current	37 mA Typical
Environment Operating Storage	0°C to +55°C -40°C to +80°C
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 8540	
PIN	FUNCTION
1	RTD
2	RTD RETURN
3	RTD RETURN
4	SHIELD
5	+24 VDC
6	-24 VDC
7	EMITTER
8	COLLECTOR

\* FOR 2 WIRE RTD  
CONNECT PINS 2 AND 3 TOGETHER

