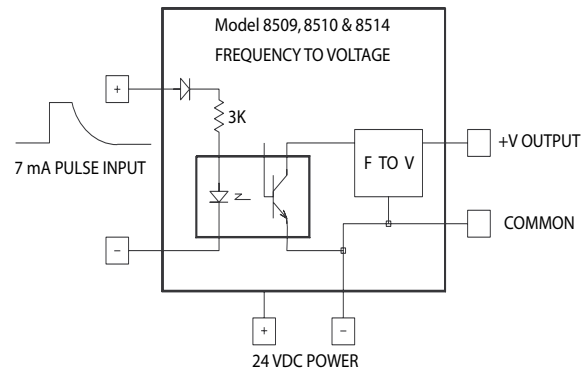
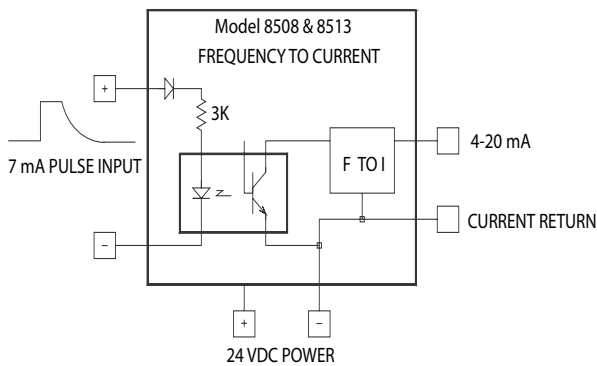




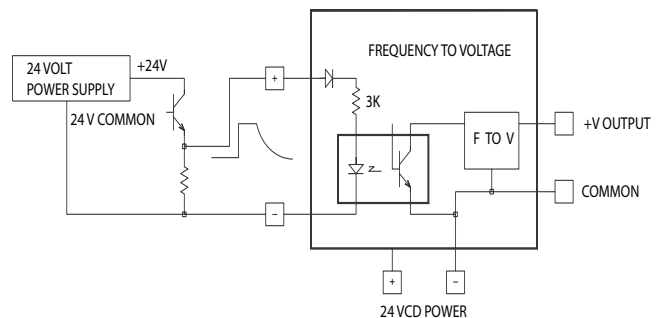
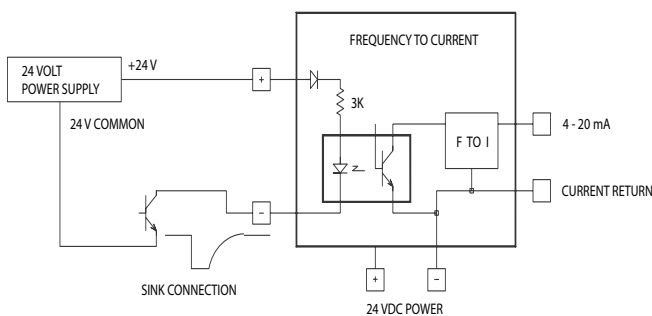
Model 8508, 8509, 8510, 8513 and 8514 frequency to analog converters are designed to operate from a common 24 Volt, 7mA PLC discrete output or any source that can switch 7 mA through 3000 ohms. The input is an isolated optocoupler diode which provides DC isolation from the pulse source, DC power and the output. These units will operate with a DC supply of 22 VDC to 26 VDC. The modules are housed in a plastic housing with a U-foot for mounting on standard DIN rails. The unit's dimensions, excluding the mounting foot, are 1.65"H x 1.06"W x 3.78"L. Connections are made to screw clamp terminal blocks.

The model 8508 provides a 4 to 20mA output from a 1kHz to 5 kHz input yielding a 4 μ A per Hertz resolution. The model 8509 output voltage is scaled for 1 mV per Hertz, 5kHz input provides 5 VDC output. The 8510 is scaled for 2.5 mV per Hertz to produce 5 VDC output with a 2 kHz input. The model 8513 provides a 4 to 20 mA output with a 400 Hz to 2 kHz input with 10 μ A per Hertz resolution. Model 8514 output voltage is scaled to 5 mV per Hertz, 2 kHz for 10 VDC output.



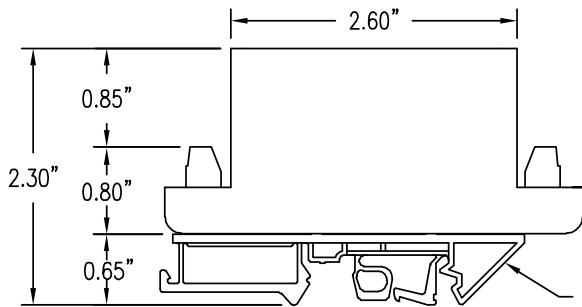
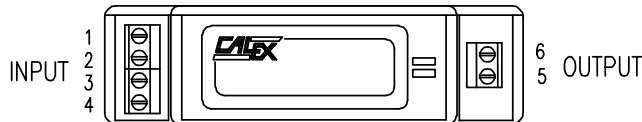
**MODEL 8508, 8509, 8510, 8513, 8514
SINK CONNECTION**

**MODEL 8508, 8509, 8510, 8513, 8514
SOURCE CONNECTION**



Models 8508, 8509, 8510, 8513 & 8514

Model	8508	8509	8510	8513	8514
Input	0 to 5000 Hz	0 to 5000 Hz	0 to 2000 Hz	0 to 2000 Hz	0 to 2000 Hz
	Optocoupler Diode 7 mA into 3.3K, 20µSec pulse width Minimum				
Output	0 to 20 mA	0 to 5 Volts	0 to 5 Volts	0 to 20 mA	10 Volts
Resolution	4 µA/Hz 12 Bits	1 mV/Hz 12 Bits	2.5 mV/Hz 12 Bits	10 µA/Hz 12 Bits	5 mV/Hz 12 Bits
Linearity From 1% to 100% of Full Scale	±0.02% Typical ±0.05% Maximum	±0.02% Typical ±0.05% Maximum	±0.02% Typical ±0.05% Maximum	±0.02% Typical ±0.05% Maximum	±0.02% Typical ±0.05% Maximum
Accuracy	±0.15% Maximum	±0.15% Maximum	±0.15% Maximum	±0.15% Maximum	±0.15% Maximum
Temperature Coefficient 0° to 55°C	±0.005%/°C Typical	±0.005%/°C Typical	±0.005%/°C Typical	±0.005%/°C Typical	±0.005%/°C Typical
Output Load	0 to 500 Ohms	5 mA Maximum	5 mA Maximum	0 to 500 Ohms	5 mA Maximum
Response Time	200 mS	200 mS	400 mS	200 mS	1 S
Frequency Ripple	4 µA Maximum	5 mV Maximum	10 mV Maximum	100 Hz 12 µA pp 1 kHz 3 µA pp 2 kHz 1 µA pp	100 Hz 5 mV 1 kHz 2 mV 2 kHz 1 mV
Power Requirements					
Voltage	22 to 26 Volts DC	15 to 26 Volts DC	15 to 26 Volts DC	22 to 26 Volts DC	15 to 26 Volts DC
Current	30 mA Typical	15 mA Typical	15 mA Typical	30 mA Typical	15 mA Typical
Power Supply Common connected to Signal Output Common					
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 96mm)				
Weight	3 oz (85 grams)				
Agency Approvals	UL508, C22.2 No 14-M91, UL1604, C22.2 No 213-M1987				



	MODEL 8508	MODEL 8509	MODEL 8510	MODEL 8513	MODEL 8514
PIN	FUNCTION	FUNCTION	FUNCTION	FUNCTION	FUNCTION
1	FREQ INPUT	FREQ INPUT	FREQ INPUT	FREQ INPUT	FREQ INPUT
2	FREQ RTN	FREQ RTN	FREQ RTN	FREQ RTN	FREQ RTN
3	COM	COM	COM	COM	COM
4	+24VDC	+24VDC	+24VDC	+24VDC	+24VDC
5	I out	+VOUT	+VOUT	I out	+VOUT
6	RETURN	-VOUT	-VOUT	RETURN	-VOUT

