



4-Wire Current Transmitter 4-20 mA Output

The **CR4340** series, 4-Wire Current Transmitter produces a calibrated 4-20 mA DC signal proportional to the average RMS value of the input alternating current. The output signal is produced by an internal current generator powered from an external 120 Vac supply. The output signal is unaffected by variations in interconnect and load impedance (within specification limits) thus providing a highly accurate means for monitoring alternating current over long distances.

The 4-wire transmitter allows for direct attachment to instrumentation. There is no need for external DC power as required with 2-wire transmitters.

Features

- Permanently calibrated
- Fully isolated
- Output overload protected
- 13 different ranges - 6 field selectable
- Internal current generator
- 2 case styles, .94" (23.9) and 2.13" (54.1) window opening
- Monitors over long distances

Specifications

Accuracy:

±0.5% Full-Scale (FS)

Ripple & Noise:

1% Max., peak to peak

Calibrated Signal Out:

4-20 mA DC

Response Time:

150 ms max., 10-90% FS

Max. Signal Out:

30 mA DC

Temperature Coefficient:

± 0.02%/°C

Supply Voltage:

120 ±10% Vac

Frequency:

50/60 Hz

Continuous Thermal Current Rating Factor:

1.50 @ 30°C for ranges-All Ranges up to 75 Amp.

1.33 @ 30°C for ranges 100 Amp. and over

Short Time Thermal Current

Rating Factor (For 30 Seconds):

15.0 x Full Scale for AC ranges up to 75 Amp.

4.0 x Full Scale for ranges 400 Amp. and over

Output Load:

0-1000 ohms

Insulation Class:

600 V, BIL 10 kV Full Wave

Operating Temperature Range:

-30°C to +60°C

Storage Temperature Range:

-55°C to +85°C



Case Style 2

Case Style 1

Part Numbers

CR4340 - 4-WIRE CURRENT TRANSMITTER

	Full-Scale (FS) Range in AC Amps	Case Style
5	0-5	1
	0-10*	1
	0-15*	
	0-20*	
20	0-25*	1
	0-50*	
	0-75*	
75		
100	0-100	2
150	0-150	2
200	0-200	2
300	0-300	2
400	0-400	2
600	0-600	2

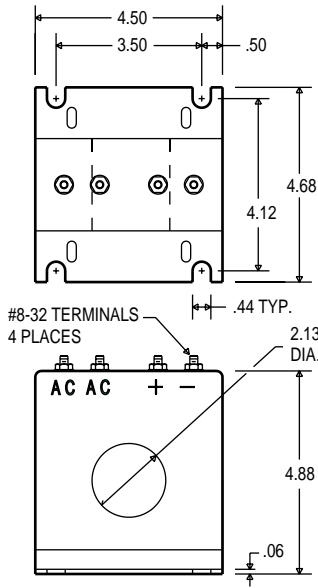
* RANGE SET WITH FIELD SELECTABLE SWITCH

Internet Resources <http://www.crmagnetics.com/>

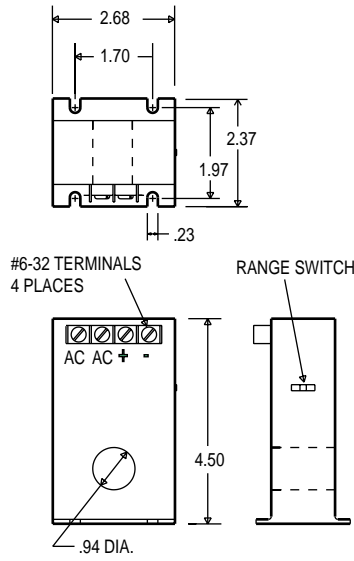
- Transducer Selection Guide: [transducer.html](#)
- Application Sheet: [pdf/ancr4340-1.pdf](#)
- Pricing: [pricing/4340.html](#)

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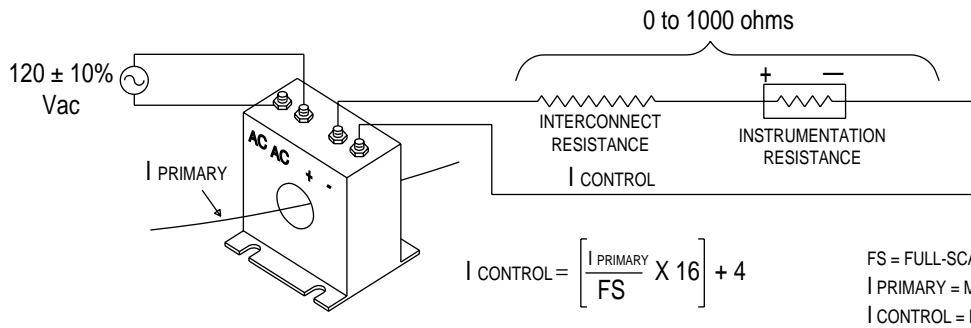
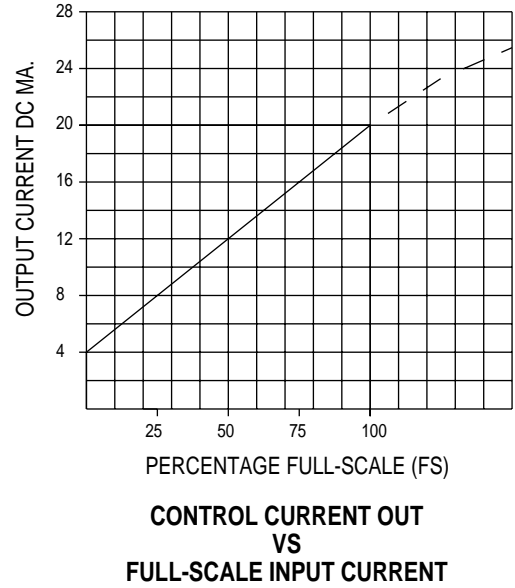
Application Notes



Case Style 2



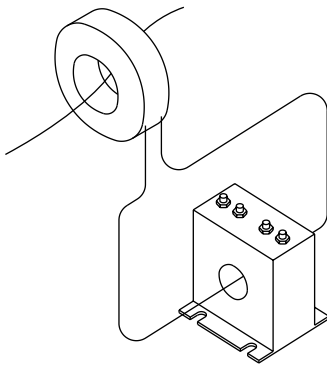
Case Style 1



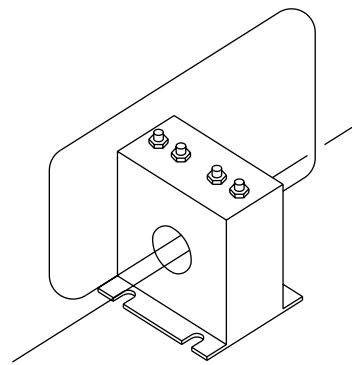
FS = FULL-SCALE CURRENT IN AMPS RMS
 I PRIMARY = MONITORED CURRENT IN AMPS RMS
 I CONTROL = LOOP CURRENT IN mA dc

in (mm)

Typical Applications



An external current transformer may be used with the transmitter by routing the secondary leads through the window opening. Use the CR4340-5 current transmitter when using 5-Amp secondary instrument grade current transformer. For additional details on current transformers, see page 22.



The scaling factor may be changed by threading the primary current-carrying wire several times through the window opening. The "actual" measurement range will be the name plate range divided by the number of wire passes. For example, the CR4340-30 has the name plate range of 0-30 ACA. Two passes of the wire through the window opening will then provide an effective range of 0-15 ACA (30÷2).