



# CR4170 True RMS AC Current Transducer

SINGLE ELEMENT / DIN RAIL / PANEL MOUNT

The **CR4100** Series true RMS Current Transducers and Transmitters are designed for applications where AC current waveforms are not purely sinusoidal. More precise and accurate than other transducers, these devices are ideal in chopped wave and phase fired control systems.



**CR4110 CR4120**  
One Element - .79" Window  
0.5 to 150 Aac Range



**CR4150 CR4160**  
Two Element - .26" Window  
0.5 to 30 Aac Range



**CR4170 CR4180**  
Three Element .26" window  
0.5 to 30 Aac Range

## Regulatory Agencies

Approved to UL3111-1, First Edition, Amendment 2  
Approved to CAN/CSA-C22.2, No. 1010.1-92  
Meets requirement of IEC 61010-1 and BS EN 61010-1

## Applications

- Phase fired controlled heaters
- Quickly varying motor loads
- Chopped wave form drivers
- Harmonic currents

## Features

- 35mm DIN Rail or Panel Mount
- Available with 0 - 5 Vdc or 4 - 20 mA DC outputs
- 24 Vdc powered
- Use with external current transformers
- Highest precision available
- Connection diagram printed on case

- Pricing: [pricing/4100.html](http://pricing/4100.html)
- Application Sheets: [pdf/ancr4310.pdf](http://pdf/ancr4310.pdf), [pdf/ancr4310-2.pdf](http://pdf/ancr4310-2.pdf), [pdf/ancr4320.pdf](http://pdf/ancr4320.pdf)

See page 34 for typical applications

## Part Numbers

- CR4110** -  Single element with 0 - 5 Vdc output
- CR4120** -  Single element with 4 - 20 mA DC output
- CR4150** -  Two element with 0 - 5 Vdc output \*
- CR4160** -  Two element with 4 to 20 mA DC output \*
- CR4170** -  Three element with 0 - 5 Vdc output \*
- CR4180** -  Three element with 4 - 20 mA DC output \*

\* Two and three element transducers are available only in ranges of 0.5 to 30 Aac

Add suffix for input range

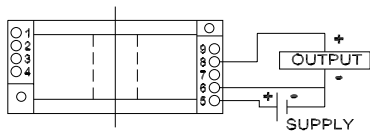
<b>.5</b>	-	0-.5 Aac *	<b>40</b>	-	0-40 Aac
<b>5</b>	-	0- 5 Aac *	<b>50</b>	-	0-50 Aac
<b>10</b>	-	0-10 Aac *	<b>75</b>	-	0-75 Aac
<b>15</b>	-	0-15 Aac *	<b>100</b>	-	0-100 Aac
<b>20</b>	-	0-20 Aac *	<b>150</b>	-	0-150 Aac
<b>25</b>	-	0-25 Aac *			
<b>30</b>	-	0-30 Aac *			

Other Ranges Available

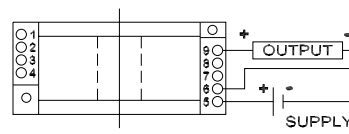
## Specifications

Basic Accuracy:.....	0.5%	Frequency Range:.....	20 Hz - 5 KHz
Calibration:.....	True RMS Sensing	MTBF:.....	Greater than 100 K hours
Thermal Drift:.....	500 PPM/°C	Cleaning:.....	Water-dampened cloth
Operating Temperature:.....	0°C to +60°C	Supply Voltage:.....	24 Vdc ±10%
Installation Catagory:.....	CAT II	Output Load:.....	4-20 mA dc - 0 to 300 Ω
Polution Degree:.....	2		0-5 Vdc - 2K Ω or Greater
Insulation Voltage:.....	2500 Vdc	Response Time:.....	250 ms max. 0-90% FS
Altitude:.....	2000	Relative Humidity:.....	80% for temperatures up to 31°C and decreasing linearly to 50% at 40°C

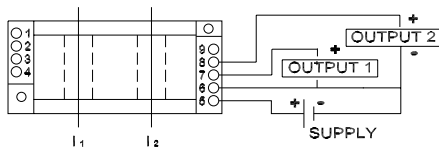
## Connection Drawings



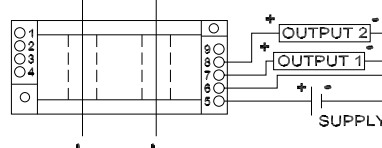
**CR4110** One Element 0 - 5 Vdc Output



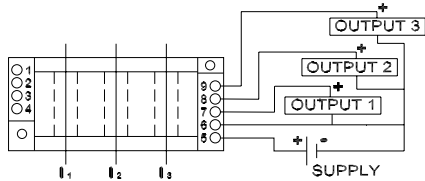
**CR4120** One Element 4 - 20 mA DC Output



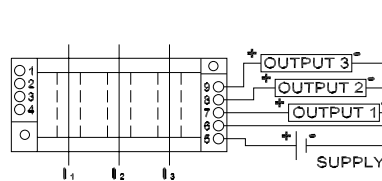
**CR4150** Two Element 0 - 5 Vdc Output



**CR4160** Two Element 4 - 20 mA DC Output



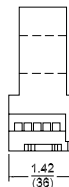
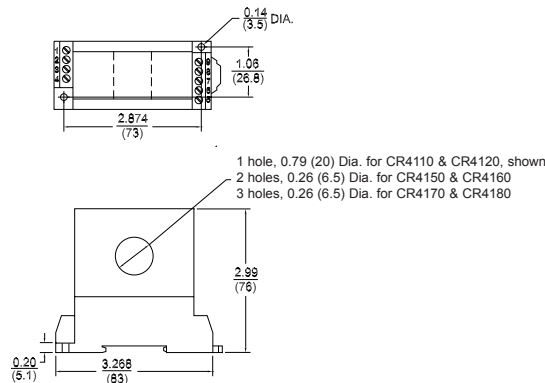
**CR4170** Three Element 0 - 5 Vdc Output



**CR4180** Three Element 4 - 20 mA DC Output

Note: The building installation must have a switch or circuit-breaker that is in close proximity and within easy reach of the operator. The switch or circuit breaker shall be marked as the disconnecting device for the equipment.

## Outline Drawing



inch (mm)