

# True RMS AC Current Transducer

## DIN RAIL / PANEL MOUNT, TRUE RMS



Single Element - 0.79" Window  
0.5 to 150 AAC Input Range



Two Element - 0.26" Window  
0.5 to 30 AAC Input Range



Three Element - 0.26" Window  
0.5 to 30 AAC Input Range

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.

### 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 mADC outputs  
24 VDC powered  
Use with external current transformers  
Highest precision available  
Connection diagram printed on case

### 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



**E199795**



All single element current transducers are available in split core design.  
Simply put an "S" at the end of the prefix\*  
\* UL Recognition Pending

□ Add suffix for input range

- .5** - 0-.5 AAC \*
- 5** - 0- 5 AAC \*
- 10** - 0-10 AAC \*
- 15** - 0-15 AAC \*
- 20** - 0-20 AAC \*
- 25** - 0-25 AAC \*
- 30** - 0-30 AAC \*
- 40** - 0-40 AAC
- 50** - 0-50 AAC
- 75** - 0-75 AAC
- 100** - 0-100 AAC
- 150** - 0-150 AAC

other ranges available

### PART NUMBERS

<b>CR4110(S)</b>	-	Single element with 0 - 5 VDC output (split core design)
<b>CR4111(S)</b>	-	Single element with 0 - 10 VDC output (split core design)
<b>CR4120(S)</b>	-	Single element with 4 - 20 mADC output (split core design)
<b>CR4150</b>	-	Two element with 0 - 5 VDC output *
<b>CR4160</b>	-	Two element with 4 to 20 mADC output *
<b>CR4170</b>	-	Three element with 0 - 5 VDC output *
<b>CR4180</b>	-	Three element with 4 - 20 mADC output *

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



Another HUNTINGTON ELECTRIC Company

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Web: <http://www.crmagnetics.com>

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Transducers

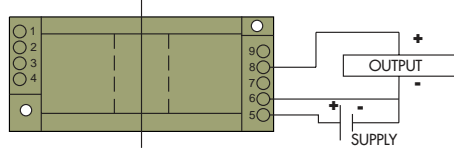
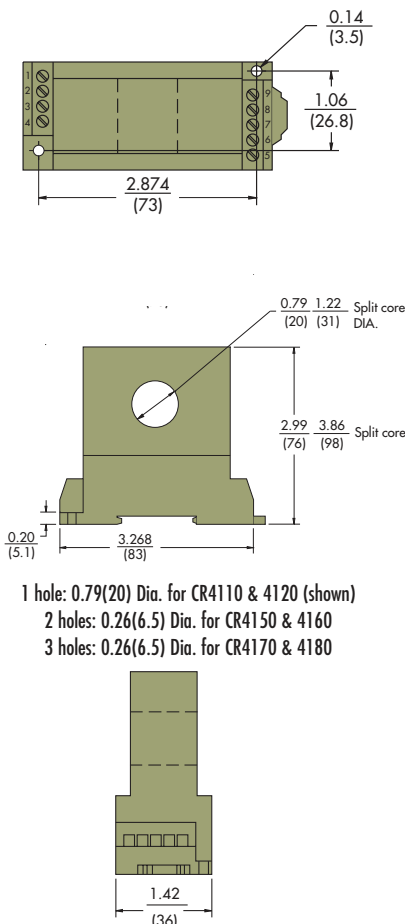
# True RMS AC Current Transducer

DIN RAIL / PANEL MOUNT, TRUE RMS

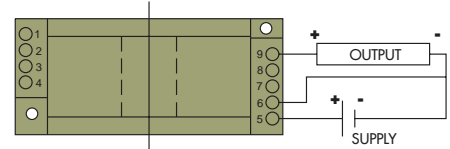
## SPECIFICATIONS

Basic Accuracy:.....	0.5%	Response Time:.....	250 ms max. 0-90%
Calibration:.....	True RMS Sensing	FS Relative Humidity:.....	80% for temperatures up to 31°C and decreasing linearly to 50% at 40°C
Thermal Drift:.....	500 PPM/°C	Torque Specs:.....	3.0 inch lbs. (0.4Nm)
Operating Temperature:.....	0°C to +60°C	Weight:.....	0.5 lbs.
Installation Category:.....	CAT II	Supply Current:	
Pollution Degree:.....	2	CR4110/11.....	Typical 15mA Max 25mA
Insulation Voltage:.....	2500 VDC	CR4120.....	Typical 25mA Max 40mA
Altitude:.....	2000 meter max.	CR4150.....	Typical 25mA Max 75mA
Frequency Range:.....	20 Hz - 5 KHz	CR4160.....	Typical 40mA Max 70mA
MTBF:.....	Greater than 100 K hours	CR4170.....	Typical 20mA Max 60mA
Cleaning:.....	Water-dampened cloth	CR4180.....	Typical 55mA Max 110mA
Supply Voltage:.....	24 VDC ± 10%	CR4110S.....	Typical 15mA Max 25mA
Output Load:.....	4-20 mA DC - 0 to 300 0-5 VDC - 2K Ω or Greater	CR4120S.....	Typical 25mA Max 40mA

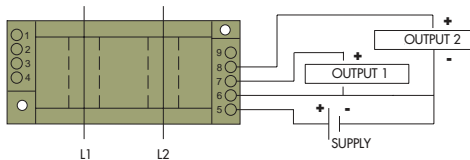
Transducers



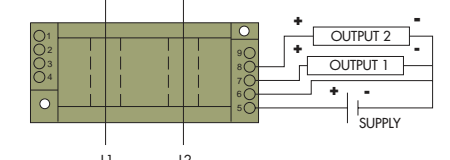
**CR4110** One Element 0 - 5 VDC Output



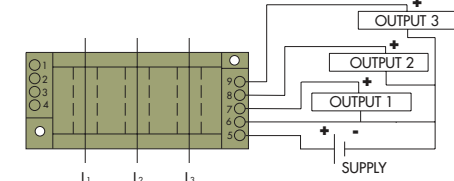
**CR4120** One Element 4 - 20 mA DC Output



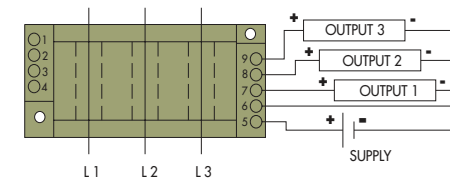
**CR4150** Two Element 0 - 5 VDC Output



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



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



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

## OUTLINE DRAWING

## CONNECTION DIAGRAM

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.



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