

# True RMS AC Voltage Transducer

## DIN RAIL / PANEL MOUNT, TRUE RMS



CR4510 CR4511 CR4520

Single Element  
50 to 500 VAC Input Range



CR4550 CR4560  
CR4570 CR4580

Three Element  
50 to 500 VAC Input Range

The **CR4500** Series, True RMS Voltage Transducers and Transmitters are designed for applications where AC voltage waveforms are not purely sinusoidal. More precise and accurate than other devices, these units are ideal in chopped wave and phase fired control systems.

### Applications

Phase fired controlled devices  
Quickly varying voltage supplies  
Chopped waveform drivers  
Harmonic voltages

### Features

35mm DIN rail mount or panel mount  
Available with 0-5 VDC, 0-10VDC or 4-20 mADC output  
24 VDC powered  
Highest precision available  
Outputs isolated from inputs  
Connection diagram printed on case

### Regulatory Agencies

Recognized to UL 61010B-1  
Recognized to CAN/CSA-C22.2, No. 61010-1-2004  
Meets requirement of IEC 61010-1 and BS EN 61010-1



Transducers

C

Add suffix for input range

PART NUMBERS			
CR4510	-		Single element with 0 - 5 VDC output
CR4511	-		Single element with 0 - 10 VDC output
CR4520	-		Single element with 4 - 20 mADC output
CR4550	-		3-Phase 3-Wire with 0 to 5 VDC Output
CR4560	-		3-Phase 3-Wire with 4 - 20 mADC Output
CR4570	-		3-Phase 4-Wire with 0 to 5 VDC Output
CR4580	-		3-Phase 4-Wire with 4 - 20 mADC Output

- 50** - 0-50 VAC
- 150** - 0-150 VAC
- 250** - 0-250 VAC
- 500** - 0-500 VAC

Ranges available up to and including 600 VAC

\* UL Recognized up to 300 Vac

CR Magnetics has a wide selection of Potential Transformers to extend the range of any part. Contact factory for more information.



CR Magnetics, Inc. 3500 Scarlet Oak Blvd. St. Louis MO USA 63122 V: 636-343-8518 F: 636-343-5119

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

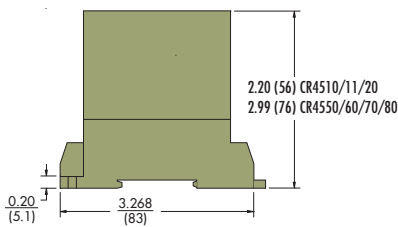
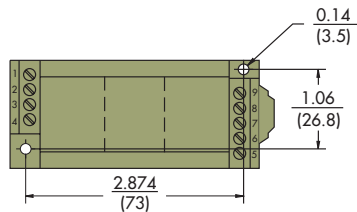
E-mail: [sales@crmagnetics.com](mailto:sales@crmagnetics.com)

# True RMS AC Voltage Transducer

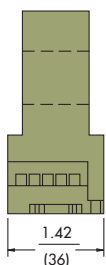
DIN RAIL / PANEL MOUNT, TRUE RMS

## SPECIFICATIONS

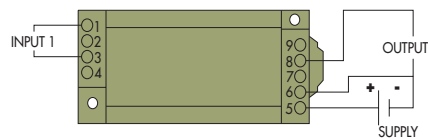
Basic Accuracy:.....	0.5%	MTBF:.....	Greater than 100 K hours
Calibration:.....	True RMS Sensing	Output Load:.....	0-5 VDC - 2 K $\Omega$ or greater 4-20 mADC - 0 to 300
Thermal Drift:.....	500 PPM/ $^{\circ}$ C	Relative Humidity:.....	80% for temperatures up to 31 $^{\circ}$ C and decreasing linearly to 50% at 40 $^{\circ}$ C
Operating Temperature:.....	0 $^{\circ}$ C to +60 $^{\circ}$ C	Supply Current:	
Installation Category:.....	CAT II	CR4510:.....	Typical 15mA    Max 25mA
Pollution Degree:.....	2	CR4520:.....	Typical 25mA    Max 40mA
Response Time: .....	250 ms	CR4550/70:.....	Typical 20mA    Max 60mA
Altitude:.....	2000 meter max.	CR4560/80:.....	Typical 55mA    Max 110mA
Insulation Voltage:.....	2500 Vdc	Torque Specs:.....	3.0 inch lbs. (0.4Nm)
Supply Voltage:.....	24 Vdc $\pm$ 10%	Weight:.....	0.5 lbs.
Frequency Range:.....	20 Hz - 5 KHz		
Cleaning:.....	Water-dampened cloth		



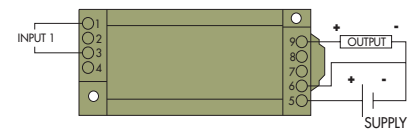
Dimensions for Models CR4550, CR4560, CR4570, CR4580 (shown)



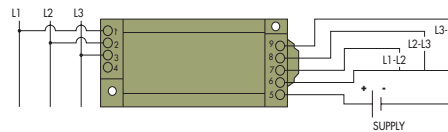
## OUTLINE DRAWING



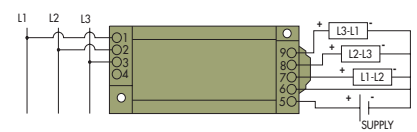
**CR4510** Single Phase - 0 - 5 VDC Output  
**CR4511** Single Phase - 0 - 10 VDC Output



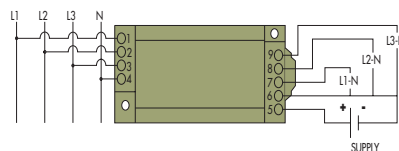
**CR4520** Single Phase - 4 - 20 mADC Output



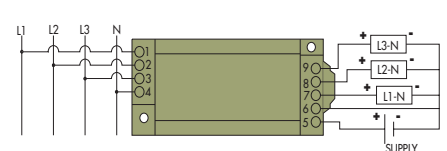
**CR4550** 3 Phase, 3 Wire - 0 - 5 VDC Output



**CR4560** 3 Phase, 3 Wire - 4-20 mADC Output



**CR4570** 3 Phase, 4 Wire - 0 - 5 VDC Output



**CR4580** 3 Phase, 4 Wire - 4 - 20 mADC Output

USE CR MAGNETICS LOW AND MEDIUM VOLTAGE POTENTIAL TRANSFORMERS (SECTION G)

## 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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Transducers