

# True RMS AC Voltage Transducer

DIN RAIL / PANEL MOUNT, TRUE RMS 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.



CR4510 CR4511 CR4520  
Single Element  
1.0 to 600 VAC Input Range



CR4550 CR4560  
CR4570 CR4580  
Three Element  
1.0 to 600 VAC Input Range

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



Transducers

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**

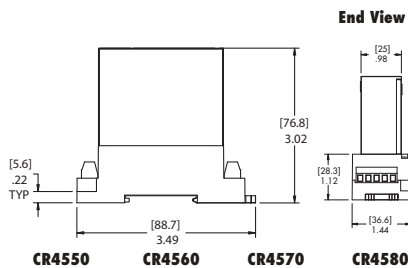
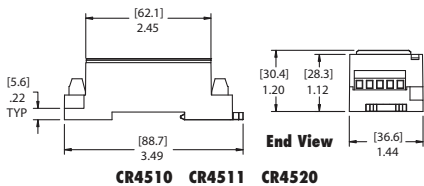
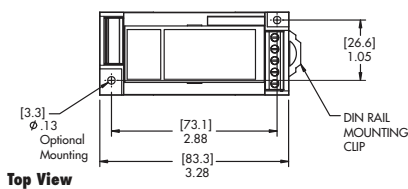
CR Magnetics has a wide selection of Potential Transformers to extend the range of any part. Contact factory for more information.

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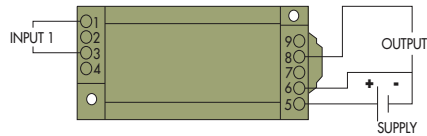
DIN RAIL / PANEL MOUNT, TRUE RMS

## SPECIFICATIONS

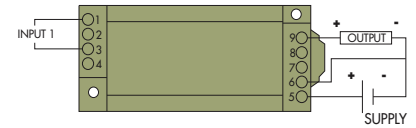
Basic Accuracy:.....	0.5%	MTBF:.....	Greater than 100 K hours
Linearity:.....	10% to 100% FS	Output Load:.....	4-20 mADC - 0 to 500 Ω
Calibration:.....	True RMS Sensing		0-5 VDC - 2K Ω or Greater
Thermal Drift:.....	500 PPM/°C	Relative Humidity:.....	5% to 95%, Non-Condensing
Operating Temperature:.....	0°C to +60°C	Supply Current:	
Installation Category:.....	CAT II	CR4510/11:.....	Typical 15mA    Max 25mA
Vibration Tested To:.....	IEC 60068-2-6,1995	CR4520:.....	Typical 25mA    Max 40mA
Pollution Degree:.....	2	CR4550/70:.....	Typical 20mA    Max 60mA
Response Time:.....	250 ms	CR4560/80:.....	Typical 55mA    Max 110mA
Altitude:.....	2000 meter max.	Torque Specs:.....	3.0 inch lbs. (0.4Nm)
Insulation Voltage:.....	2500 Vdc	Weight:.....	0.5 lbs.
Supply Voltage:.....	24 Vdc ±10%		
Frequency Range:.....	20 Hz - 5 KHz		
Cleaning:.....	Water-dampened cloth		



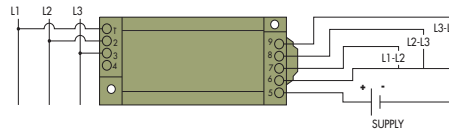
## OUTLINE DRAWING



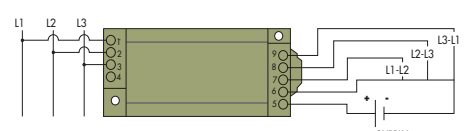
**CR4510** Single Phase - 0 - 5 VDC Output  
**CR4511** Single Phase - 0 - 10 VDC Output



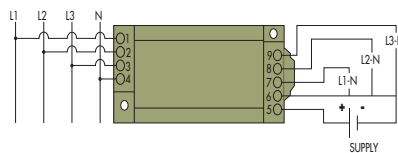
**CR4520** Single Phase - 4 - 20 mADC Output



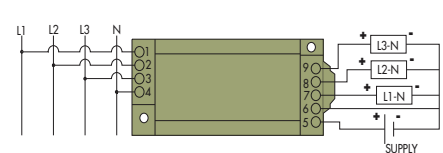
**CR4550** 3 Phase, 3 Wire - 0 - 5 VDC Output



**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

## CONNECTION DIAGRAM

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

**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.