



# THE DATASHEET OF CR4860-50



# Average RMS AC Voltage Transducer

DIN RAIL / PANEL MOUNT, AVERAGE RMS

The **CR4800** Series, Average RMS Voltage Transducers and Transmitters are designed to provide a DC output proportional to the AC voltage input. These devices are best suited for general applications, such as fixed frequency voltage supplies.



**CR4810      CR4811      CR4820**  
Single Element  
1.0 to 600 VAC Input Range



**CR4850   CR4860   CR4870   CR4880**  
Three Element  
1.0 to 600 VAC Input Range

### Applications

- Monitor Motor Faults
- Monitor Heating Elements
- Monitor Lighting Elements
- Remote Voltage Sensing

### Features

- 35mm DIN Rail or Panel Mount
- Available with 0-5 Vdc, 0-10Vdc or 4-20 mADC outputs
- 24 Vdc powered
- 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



C  
Transducers

Add suffix for input range

PART NUMBERS			
CR4810	-		Single Element with 0 - 5 VDC output
CR4811	-		Single Element with 0 - 10 VDC output*
CR4820	-		Single Element with 4 - 20 mADC output
CR4850	-		3-Element 3-Wire with 0 to 5 VDC Output
CR4860	-		3-Element 3-Wire with 4 - 20 mADC Output
CR4870	-		3-Element 4-Wire with 0 to 5 VDC Output
CR4880	-		3-Element 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. See Section G for details.

# Average RMS AC Voltage Transducer

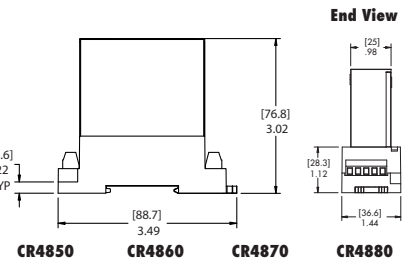
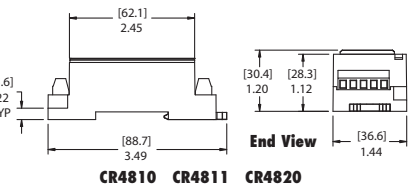
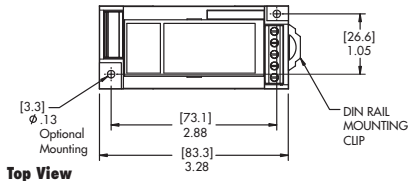
DIN RAIL / PANEL MOUNT, AVERAGE RMS

## SPECIFICATIONS

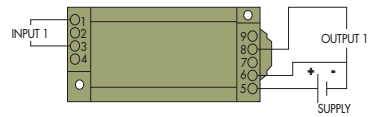
Basic Accuracy:.....	0.5%	Output Load:.....	4-20 mADC - 0 to 500 $\Omega$
Linearity:.....	10% to 100% FS		0-5 VDC - 2K $\Omega$ or Greater
Calibration:.....	Average Sensing, RMS Calibrated	Relative Humidity:.....	5% to 95%, Non-Condensing
Thermal Drift:.....	500 PPM/ $^{\circ}$ C	Supply Current:	
Operating Temperature:.....	0 $^{\circ}$ C to +60 $^{\circ}$ C	CR4810:.....	Typical 15mA Max 30mA
Installation Category:.....	CAT II	CR4820:.....	Typical 23mA Max 45mA
Vibration Tested To:.....	IEC 60068-2-6,1995	CR4850:.....	Typical 25mA Max 110mA
Pollution Degree:.....	2	CR4860:.....	Typical 55mA Max 110mA
Response Time:.....	250 ms	CR4870:.....	Typical 25mA Max 110mA
Altitude:.....	2000 meter max.	CR4880:.....	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:.....	50 Hz - 400 Hz		
Cleaning:.....	Water-dampened cloth		
MTBF:.....	Greater than 100 K hours		

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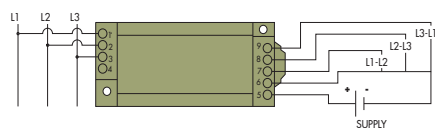
Transducers



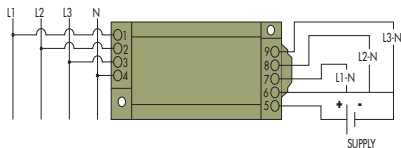
## OUTLINE DRAWING



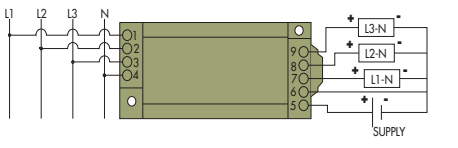
**CR4810** Single Element - 0 - 5 VDC Output **CR4820** Single Element - 4-20 mA DC Output



**CR4850** 3 Element, 3 Wire - 0 - 5 VDC Output **CR4860** 3 Element, 3 Wire - 4-20 mA DC Output



**CR4870** 3 Element, 4 Wire - 0 - 5 VDC Output **CR4880** 3 Element, 4 Wire - 4 - 20 mA DC 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.



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## Looking for pricing, stock, or lifecycle information?

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