



THE DATASHEET OF CR4870-50



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



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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

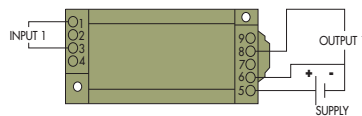
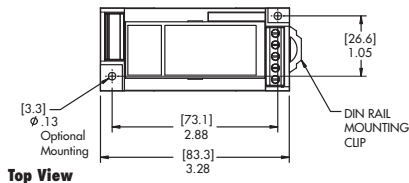
DIN RAIL / PANEL MOUNT, AVERAGE RMS

SPECIFICATIONS

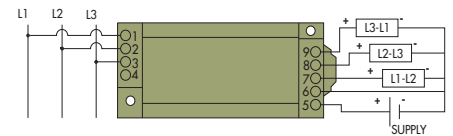
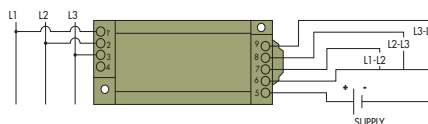
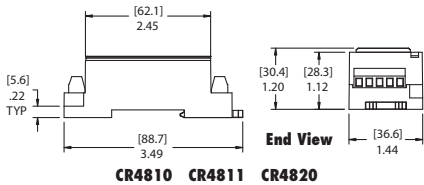
Basic Accuracy:.....	0.5%	Output Load:.....	4-20 mADC - 0 to 500 Ω
Linearity:.....	10% to 100% FS		0-5 VDC - 2K Ω or Greater
Calibration:.....	Average Sensing, RMS Calibrated	Relative Humidity:.....	5% to 95%, Non-Condensing
Thermal Drift:.....	500 PPM/ $^{\circ}$ C	Supply Current:	
Operating Temperature:.....	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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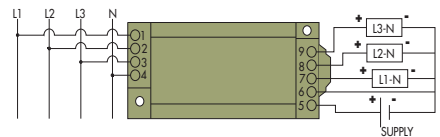
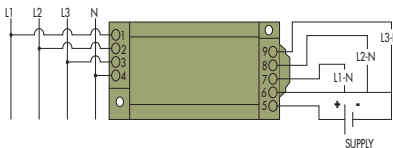
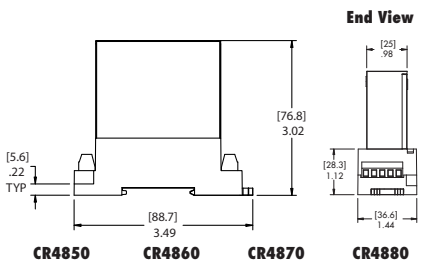
Transducers



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

OUTLINE DRAWING

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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 [CR Magnetics Inc. Information](#)

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