

# DC Voltage Transducer

## DIN RAIL / PANEL MOUNT, RMS



Single Element  
1 - 200 VDC Input Range

If you need a relay output, use a **CR3395**.  
See Section for Details.

The **CR5300** Series, DC Voltage Transducers and Transmitters, are designed to provide an output DC signal that is proportional to the input DC voltage. These devices are especially suited for applications with a current shunt to monitor DC current.

### Applications

Power Supply over/under sensing  
Battery chargers and systems  
Mobile applications  
Power sensing

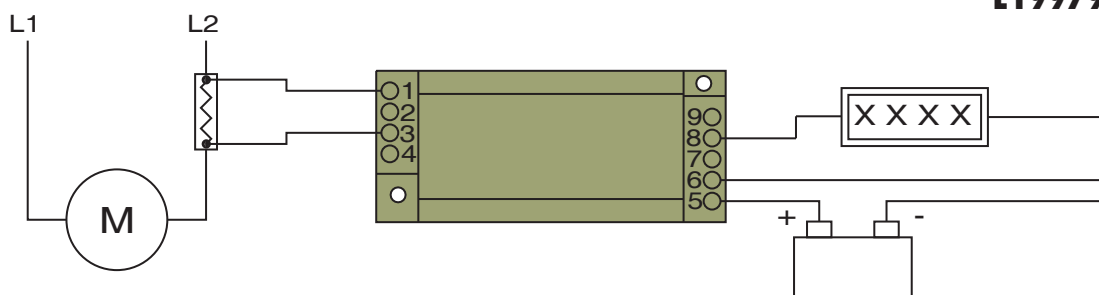
### Features

Output isolated from input  
Available with 0-5 VDC, 0-10 VDC or 4 - 20 mADC outputs  
35mm DIN rail or panel mount  
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

CR5310 with Resistor Application is shown below (optional).



### PART NUMBERS

| Model  | Output      | Description                            |
|--------|-------------|----------------------------------------|
| CR5310 | ± 5 VDC     | Single Element with ± 5 VDC output     |
| CR5311 | ± 10 VDC    | Single Element with ± 10 VDC output    |
| CR5320 | 4 - 20 mADC | Single Element with 4 - 20 mADC output |

**NOTE:** CR5300 Series is available with 12V Power Supply. Use same application as 24V Power Supply.  
Example Part Number: CR5310-300-12V

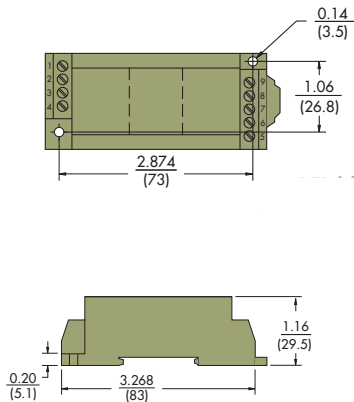
Add suffix for input range

- 1** - 0-1 VDC
  - 5** - 0-5 VDC
  - 10** - 0-10 VDC
  - 50** - 0-50 VDC
  - 150** - 0-150 VDC
  - 200** - 0-200 VDC
- Ranges available up to and including 600 VDC

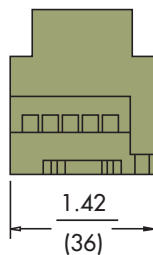
\* UL Recognized up to 300 Vdc

### SPECIFICATIONS

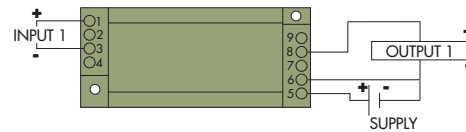
|                             |                                                |                         |                                               |
|-----------------------------|------------------------------------------------|-------------------------|-----------------------------------------------|
| Basic Accuracy:.....        | 1.0 %                                          | Supply Voltage:.....    | 24 VDC $\pm 10\%$                             |
| Linearity:.....             | 10% to 100% FS                                 | Frequency Range:.....   | DC only                                       |
| Thermal Drift:.....         | 500 PPM/ $^{\circ}\text{C}$                    | Output Load:.....       | 4-20 mADC - 0 to 300 $\Omega$                 |
| Operating Temperature:..... | 0 $^{\circ}\text{C}$ to +50 $^{\circ}\text{C}$ |                         | 0-5 VDC - 2K $\Omega$ or Greater              |
| Installation Category:..... | CAT II                                         | Relative Humidity:..... | 80% for temperatures up to                    |
| Vibration Tested To:.....   | IEC 60068-2-6, 1995                            |                         | 31 $^{\circ}\text{C}$ and decreasing linearly |
| Pollution Degree:.....      | 2                                              |                         | to 50% at 40 $^{\circ}\text{C}$               |
| Altitude:.....              | 2000 meter max.                                | Supply Current:         |                                               |
| Response Time: .....        | 250 ms. max.                                   | CR5310:.....            | Typical 10mA    Max 15mA                      |
| Insulation Voltage:.....    | 2500 VDC                                       | CR5320:.....            | Typical 35mA    Max 35mA                      |
| Cleaning:.....              | Water-dampened cloth                           | Torque Specs.:.....     | 3.0 inch lbs. (0.4Nm)                         |
|                             |                                                | Weight:.....            | 0.5 lbs.                                      |



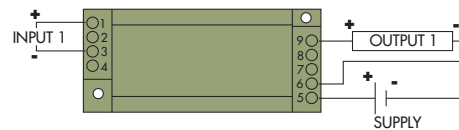
Dimensions for All CR5300 Series (shown)



### OUTLINE DRAWING



**CR5310** 5 VDC Output  
**CR5311** 10 VDC Output



**CR5320** 4 - 20 mADC Output

### 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.