Current Transducer
Model CTV140

APPLICATION
For measurement of RMS AC and DC currents using Hall effect technology. Used in a wide range of current sensing applications where reliability and safety are a priority.

FEATURES
- Adjustable gain
- Adjustable offset
- Overcurrent measurement capability
- Galvanic isolation between primary and secondary circuits
- High immunity to external interference

UNIT SELECTION

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Nominal Current (A)</th>
<th>Maximum Current (A)</th>
<th>Output Voltage at Nominal (V)</th>
<th>Accuracy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTV140R601</td>
<td>600</td>
<td>1800</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>CTV140R801</td>
<td>800</td>
<td>2400</td>
<td>4</td>
<td>1</td>
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<tr>
<td>CTV140R102</td>
<td>1000</td>
<td>2500</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>CTV140R152</td>
<td>1500</td>
<td>2500</td>
<td>4</td>
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</tr>
<tr>
<td>CTV140R202</td>
<td>2000</td>
<td>3500</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

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Subject to change without notice
**Electrical Information:**

**Specifications:**
- Voltage Supply: ±15V
- Current Consumption: <15mA
- Voltage Output @ Ipn, Rl=10kΩ, Ta = 25°C: ±4V
- Accuracy: ±1% FS Max
- Frequency: DC thru 15kHz
- Load Resistance: >10kΩ
- Isolation Resistance@ 500VDC: >1000MΩ
- Electrical Offset Voltage (Ta = 25°C): <20mV
- Magnetic Offset Voltage: <30mV
  - (Ipn = 0; after an excursion of 3x Ipn)
- Linearity Error @ 0-Ipn: <±1% FS Max
- Response Time to 90% of Ipn: <5µs
- di/dt accurately followed: >75A/µs

**Other:**
- Ambient Operating Temp (°C): -25 thru +65
- RMS voltage for AC isolation test, 50Hz, 1min: 5kV
- Impulse withstand voltage 1.2/50µs: 12kV BIL full wave
- Creep distance dcp: >15.5 mm
- Clearance distance dcl: >10.5 mm
- Approx. weight: 318g (0.7 lbs.)

**Applicable Standards:**
- EN 50178
- EN 61000-6-4
- IEC 61010-1, 3rd Ed.
- UL 61010-1, 2nd Ed.
- UL 94-V0
- CTI Comparative Tracking Index (group IIIa): >250

Over voltage Category: OV3
Pollution Degree: PD2
Non-Uniform Field

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DIMENSIONS:

Dimensions are in mm [inches]

Secondary Terminals:

- Terminal 1: Supply Voltage +15V
- Terminal 2: Supply Voltage -15V
- Terminal 3: Output
- Terminal 4: OV

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Advantages
Easy installation. One footprint for sensing of wide range of currents. Low power consumption.

Polarity
A permanent laser printed arrow designates direction of current flow. Arrow is black and situated on top of the unit for better visibility.

Current Maximum Rating
The maximum primary current rating for each transducer is listed in the model datasheet. This is typically 2-3 times the unit nominal current.

Mounting
Provisions provided as per drawing. Can be mounted in any orientation.

Applicable Standards
Units are UL recognized, meet RoHS requirements and are CE compliant.

Safety Remarks
Transducer must be used in accordance to applicable standards. When operating the transducers, certain parts can carry hazardous voltages (e.g. primary bus-bar, power supply, etc.). Ignoring this warning can lead to injury and/or cause serious damage, including electrical shock. The transducer is a built-in device, whose conducting parts must be inaccessible after installation. Main supply must be able to be disconnected.

Maintenance
These transducers require no maintenance other than an occasional cleaning if installed in an area where air contamination is severe.