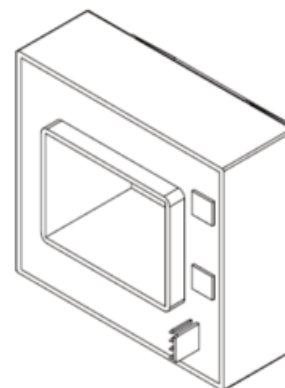


# Current Transducer

## 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

tbPart Number	Nominal Current (A)	Maximum Current (A)	Output Voltage at Nominal (V)	Accuracy (%)
CTV140R601	600	1800	4	1
CTV140R801	800	2400	4	1
CTV140R102	1000	2500	4	1
CTV140R152	1500	2500	4	1
CTV140R202	2000	3500	4	1

# Current Transducer

## Model CTV140

### ELECTRICAL INFORMATION:

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#### Specifications:

Voltage Supply	±15V
Current Consumption	<15mA
Voltage Output @ $I_{pn}$ , $R_l=10k\Omega$ , $T_a = 25^\circ C$	±4V
Accuracy	±1% FS Max
Frequency	DC thru 15kHz
Load Resistance	>10kΩ
Isolation Resistance@ 500VDC	>1000MΩ
Electrical Offset Voltage ( $T_a = 25^\circ C$ )	<20mV
Magnetic Offset Voltage ( $I_p = 0$ ; after an excursion of $3X I_{pn}$ )	<30mV
Linearity Error @ 0- $I_{pn}$	<±1% FS Max
Response Time to 90% of $I_{pn}$	<5μs
$d_i/d_t$ accurately followed	>75A/μs
<b><u>Other:</u></b>	
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 $d_{cp}$	>15.5 mm
Clearance distance $d_{cl}$	>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
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Over voltage Category: OV3

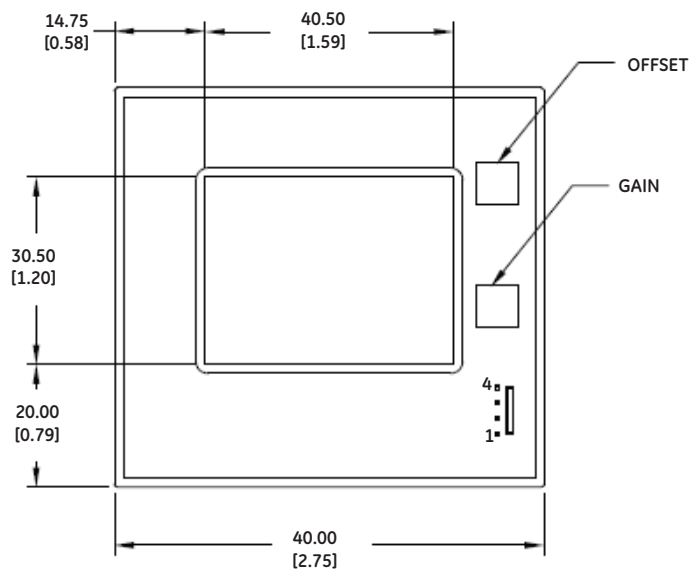
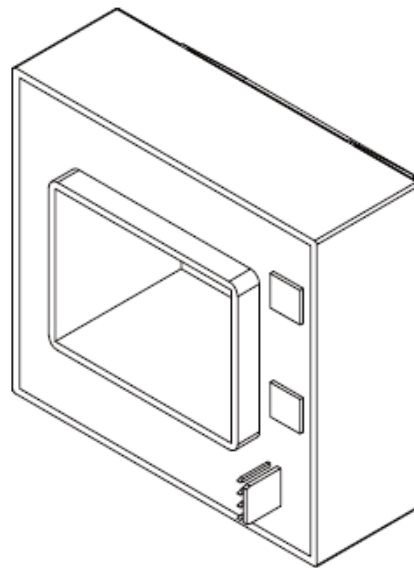
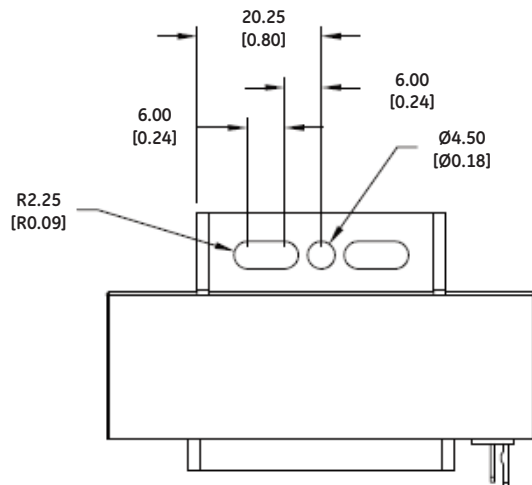
Pollution Degree: PD2

Non-Uniform Field

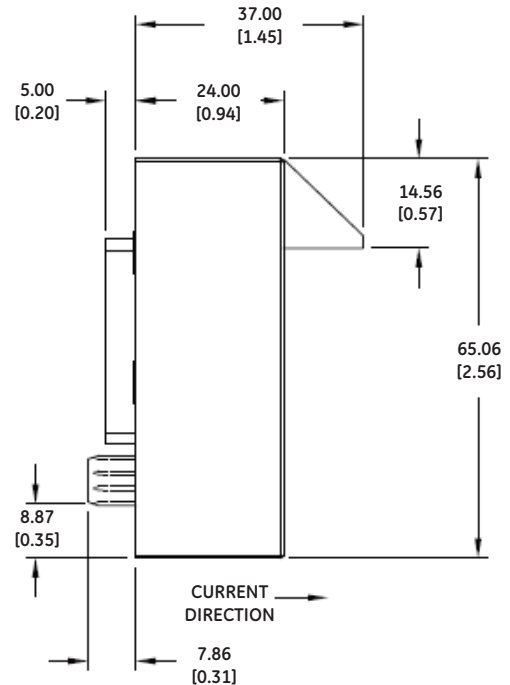
# Current Transducer

## Model CTV140

DIMENSIONS:



PIN ARRANGEMENT  
1 2 3 4  
+ - OUT GND



### SECONDARY TERMINALS

TERMINAL 1: SUPPLY VOLTAGE +15V  
TERMINAL 2: SUPPLY VOLTAGE -15V  
TERMINAL 3: OUTPUT  
TERMINAL 4: OV

DIMENSIONS ARE IN mm [INCHES]

# Current Transducer

## CONSTRUCTION DETAILS:

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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.

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