



# VOLTAGE OUTPUT

## CTE2, SCTE2, CTV2 & SCTV2 Series

The Voltage Output Analog Current Sensors are designed for use in any AC current monitoring application in which you are looking to monitor a particular piece of equipment for proper operation. All voltage output current sensors use an "Average" current measuring method and should be used in applications where a pure Sinusoidal AC waveform that has very little or no distortion/noise on the conductor being monitored. Applications may include monitoring a resistive type load such as an incandescent light bulb or heating element as well as any single speed linear load. Voltage Output current sensors are available in both solid and split-core versions which also includes a Patented 35 mm Din Rail mounting foot for easy installation in panel mount applications. The solid-core versions are a great choice for new installations or OEM applications in which cost sensitivity, lower trip points and environmental issues like dust and moisture may be of concern. The split-core version of the current sensors work great in

retrofit applications and for use on service technicians vehicles since one or two parts will work in most applications and can be easily installed without disconnecting any wires. For best results, the voltage output current sensors should not be used in applications with switching power supplies or variable speed drives due to the limited operating frequency range. In applications where variable speed drives or waveforms include distortion/noise, ACI recommends the use of the A/CTA2-RMS or A/SCTA2-RMS Series sensors where you need to supply 24 VDC power to the current sensors with a 4-20 mA signal. A 249 Ohm or 499 Ohm 1 Watt resistor can be used to convert the 4-20 mA signal into a useable 1-5 or 2-10 VDC output signal at your building management system or PLC.

**Applications:** Load Trending, Single Speed Loads, Pumps, Compressors, Fans, Preventative Maintenance, LEED, Project Justification (Calculating ROI), Process Control

**The Voltage Output Current Sensors are covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [www.workaci.com](http://www.workaci.com).**

### PRODUCT SPECIFICATIONS

<b>Monitored Current Type:</b>	AC Current
<b>Maximum AC Voltage:</b>	600 VAC
<b>Isolation Voltage:</b>	2200 VAC
<b>Operating Frequency Range:</b>	50 to 600 Hz
<b>Core Style:</b>	Solid-Core and Split-Core Versions available (See Ordering Grid)
<b>Supply Voltage:</b>	Induced from the Monitored Conductor (Insulated Conductors only)
<b>Sensor Amperage Range:</b>	See Ordering Grid (Field Selectable)
<b>Output Signal   Number of Wires:</b>	<b>A/CTE2 &amp; A/SCTE2 Series:</b> 0 to 5 VDC   <b>A/CTV2 &amp; A/SCTV2 Series:</b> 0 to 10 VDC   2-Wires
<b>Accuracy 1:</b>	<b>A/CTE2 &amp; A/SCTE2 Series:</b> (0-10A Range Only): +/- 1% from 5-100% of Selected Range <b>A/CTE2 &amp; A/SCTE2 Series:</b> (All Other Ranges): +/- 1% from 2-100% of Selected Range <b>A/CTV2:</b> +/- 1% from 5-100% of Selected Range <b>A/SCTV2 Series:</b> (0 to 10A Range Only): +/- 2% from 5 to 100% of Selected Range <b>A/SCTV2 Series:</b> (All Other Ranges): +/- 1% from 5 to 100% of Selected Range
<b>Response Time:</b>	< 300 mS (Rise and Fall Times)
<b>Aperture Size:</b>	0.75" (19.05 mm)
<b>Din Rail Size:</b>	35 mm (U.S. Patent No. 7,416,421)
<b>Operating Temperature Range:</b>	5 to 104°F (-15 to 40°C)
<b>Operating Humidity Range:</b>	0 to 95%, non-condensing
<b>Recommended Storage Temperature   RH Range:</b>	41 to 95°F (5 to 35°C)   40% to 85% RH, non-condensing
<b>Enclosure Material   Flammability Rating:</b>	PC/ABS (Polycarbonate/ABS Blend)   UL94-V0
<b>Wiring Connections:</b>	2 Position, Screw Terminal Block (Polarity Sensitive)
<b>Wire Recommendations:</b>	2 Conductor (Shielded Cable)
<b>Wire Size:</b>	18 to 24 AWG (0.823 mm <sup>2</sup> to 0.205 mm <sup>2</sup> ) Copper Wires only
<b>Terminal Block Torque Rating:</b>	4.43 to 5.31 in-lbs. (0.5 to 0.6 Nm)
<b>Minimum Mounting Distance:</b>	1" (2.6 cm) between current sensor & other magnetic devices (Relays, Contactors, Transformers)
<b>Agency Approvals:</b>	UL/CUL US Listed (UL 508) Ind. Control Equipment (File # E309723), CE, RoHS2, WEEE
<b>Product Weight:</b>	<b>A/CTE2-xxx &amp; A/CTV2-xxx Series:</b> 0.194 lbs. (0.088 kg) <b>A/SCTE2-xxx &amp; A/SCTV2-xxx Series:</b> 0.274 lbs. (0.125 kg)
<b>Product Dimensions (L x W x H):</b>	<b>Solid Core Versions:</b> 2.760" (70.11 mm) x 3.343" (84.92 mm) x 1.050" (26.67 mm) <b>Split Core Versions:</b> 2.780" (70.51 mm) x 3.238" (82.25 mm) x 1.120" (28.45 mm)

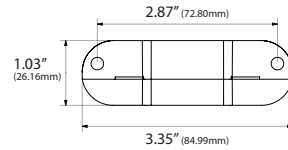
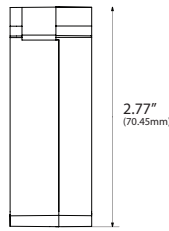
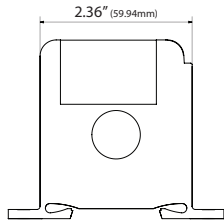
**Note 1:** All current output sensors are calibrated at an ambient room temperature of 71°F (21.5°C)



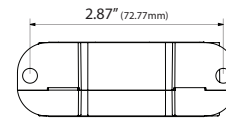
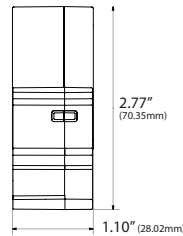
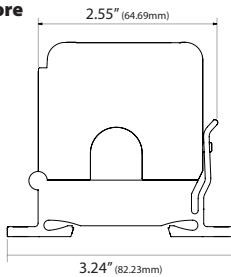


**DIMENSIONAL DRAWING**

**Solid-Core**



**Split-Core**



**Front View**

**Right View**

**Bottom View**

**STANDARD ORDERING**

Model # Example: **A/CTE2-50** -OR- **142389**

Model #	Item #	Selectable Ranges	Measurement	AC Waveform	Solid-Core	Split-Core	Output Signal
<b>A/CTE2-50</b>	142389	0 to 10/20/50A	Average	Pure Sinusoidal	•		0 to 5 VDC
<b>A/CTE2-150</b>	142388	0 to 50/100/150A	Average	Pure Sinusoidal	•		0 to 5 VDC
<b>A/SCTE2-50</b>	142385	0 to 10/20/50A	Average	Pure Sinusoidal		•	0 to 5 VDC
<b>A/SCTE2-150</b>	142384	0 to 50/100/150A	Average	Pure Sinusoidal		•	0 to 5 VDC
<b>A/SCTE2-250</b>	142383	0 to 100/200/250A	Average	Pure Sinusoidal		•	0 to 5 VDC
<b>A/CTV2-50</b>	142387	0 to 10/20/50A	Average	Pure Sinusoidal	•		0 to 10 VDC
<b>A/CTV2-150</b>	142386	0 to 50/100/150A	Average	Pure Sinusoidal	•		0 to 10 VDC
<b>A/SCTV2-50</b>	142382	0 to 10/20/50A	Average	Pure Sinusoidal		•	0 to 10 VDC
<b>A/SCTV2-150</b>	142381	0 to 50/100/150A	Average	Pure Sinusoidal		•	0 to 10 VDC
<b>A/SCTV2-250</b>	142380	0 to 100/200/250A	Average	Pure Sinusoidal		•	0 to 10 VDC

The Voltage Output Current Sensors are not intended to be used in Life / Safety Applications or in Hazardous / Classified Locations

