SCTE2 SCTV2 Series

Voltage Output Analog Current Sensors

Automation Components
a DwyerOmega brand

Applications

- Load Trending
- Single Speed Loads
- Pumps
- Compressors
- Fans
- Preventative Maintenance
- LEED
- Project Justification (Calculating ROI)
- Process Control

Split-Core



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 split-core versions which also includes a Patented 35 mm Din Rail mounting foot for easy installation in panel mount applications. 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 V DC power to the current sensors with a 4 mA to 20 mA signal. A 249 Ohm or 499 Ohm 1 Watt resistor can be used to convert the 4 mA to 20 mA signal into a useable 1 V DC to 5 V DC or 2 V DC to 10 V DC output signal at your building management system or PLC.

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

Specifications

Monitored Current Type	AC Current
Maximum AC Voltage	600 V AC
Isolation Voltage	2200 V AC
Operating Frequency Range	50 Hz to 600 Hz
Core Style	Split-Core Versions
Supply Voltage	Induced from the Monitored Conductor (Insulated Conductors only)

Sensor Amperage Range	See Ordering Grid (Field Selectable)
Output Signal I Number of Wires	**A/SCTE2 Series:** 0 V DC to 5 V DC I **A/SCTV2 Series:** 0 V DC to 10 V DC I 2-Wires
Accuracy[1]	**A/SCTE2 Series:** (0-10A Range Only): +/- 1 % from 5 % to 100 % of Selected Range **A/SCTE2 Series:** (All Other Ranges): +/- 1 % from 2% to 100 % of Selected Range **A/SCTV2 Series:** (0 A to 10 A Range Only): +/- 2 % from 5 % to 100 % of Selected Range **A/SCTV2 Series:** (All Other Ranges): +/- 1 % from 5 % to 100 % of Selected Range
Response Time	< 300 mS (Rise and Fall Times)
Aperture Size	0.75 " (19.05 mm)
Din Rail Size	35 mm (U.S. Patent No. 7,416,421)
Operating Temperature Range	5 °F to 104 °F (-15 °C to 40 °C)
Operating Humidity Range	0 % to 95 %, non-condensing
Recommended Storage Temperature I RH Range	41 °F to 95 °F (5 °C to 35 °C) I 40 % to 85 % RH, non-condensing
Enclosure Material I Flammability Rating	PC/ABS (Polycarbonate/ABS Blend) I UL94-V0
Wiring Connections	2 Position, Screw Terminal Block (Polarity Sensitive)
Wire Recommendations	2 Conductor (Shielded Cable)
Wire Size	18 AWG to 24 AWG (0.823 mm2 to 0.205 mm2) Copper Wires only
Terminal Block Torque Rating	4.43 in-lbs to 5.31 in-lbs (0.5 to 0.6 Nm)

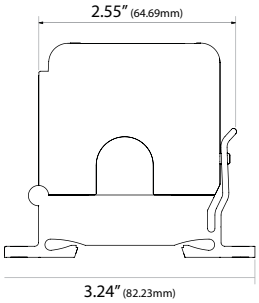
Minimum Mounting Distance	1 ” (2.6 cm) between current sensor & other magnetic devices (Relays, Contactors, Transformers)
Agency Approvals	UL/CUL US Listed (UL 508) Ind. Control Equipment (File # E309723), CE, RoHS2, WEEE, UKCA
Product Weight	**A/CTE2-xxx & A/CTV2-xxx Series:** 0.194 lbs (0.088 kg) **A/SCTE2-xxx & A/SCTV2-xxx Series:** 0.274 lbs. (0.125 kg)

Product Dimensions (L x W x H)	**Split Core Versions:** 2.780 ” (70.51 mm) x 3.238 ” (82.25 mm) x 1.120 ” (28.45 mm)

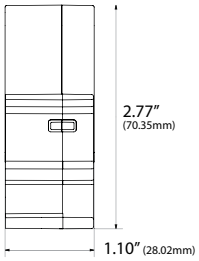
Note[1]: All current output sensors are calibrated at an ambient room temperature of 71 °F (21.5 °C)

Dimensions

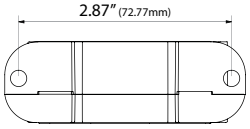
Split-Core



FRONT VIEW



RIGHT VIEW



SIDE VIEW

Ordering Guide

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

Model #	Item #	Selectable Ranges	Measurement	AC Waveform	Split-Core	Output Signal
A/SCTE2-50	142385	0 A to 10/20/50 A	Average	Pure Sinusoidal	•	0 V DC to 5 V DC
A/SCTE2-250	142383	0 A to 100/200/25 0A	Average	Pure Sinusoidal	•	0 V DC to 5 V DC
A/SCTV2-50	142382	0 A to 10/20/50 A	Average	Pure Sinusoidal	•	0 V DC to 10 V DC
A/SCTV2-150	142381	0 A to 50/100/150 A	Average	Pure Sinusoidal	•	0 V DC to 10 VDC
A/SCTV2-250	142380	0 A to 100/200/250 A	Average	Pure Sinusoidal	•	0 V DC to 10 VDC

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

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