



# Analogue Output Current Sensors CTA/CTV

## Description

The CTA/CTV Series current sensors monitor the current flowing to electrical equipment or buildings. The magnitude of this current is then converted into a linear 4...20 mA or 0...10Vdc output signal, which can be monitored by your Building Management, DDC, or PLC controller. All of these sensors have jumper selectable input ranges. These current sensors should be used in load trending (current monitoring) type applications. The solid-core units are an excellent choice for new installations while the split-core versions are more suited to retrofit or existing installations. The current sensors are fast acting, reliable, and extremely easy to install. No additional din rail mounting clips are necessary, due to the unique design of the integral din rail mounting flange.

All of these current sensors are factory calibrated using an NIST Traceable standard and shipped with the jumper placed in the largest jumper selectable range.

The CTA units must be externally powered using a +12 to 40 VDC power supply while the CTV are self-powered inducing the supply from the monitored conductor.

All of these current sensors come with a limited five year factory warranty.

## Features

- Fast Response Time
- Integral Din Rail Mounting Flange
- Easy Wiring, Polarity Sensitive Output
- Accepts up to a 350 MCM Cable
- Operates up to 250 continuous Amps
- Highly Accurate
- 5 Year Limited Warranty



## Technical Specification

<b>Power Supply:</b>	CTV - self-powered CTE - +12...30Vdc
<b>Output:</b>	CTV - 0...10Vdc, CTA - 4...20mA
<b>Accuracy:</b>	±1%
<b>Current Range:</b>	0...250A (range as per code)
<b>Frequency:</b>	30...1kHz
<b>Isolation Voltage:</b>	1270Vac
<b>Enclosure Size:</b>	Solid core - 58 x 86 x 25 Mm Split core - 68 x 86 x 28 mm
<b>Enclosure Material:</b>	UL 94V-0 flammability rated ABS
<b>Conductor Hole Size:</b>	19.8mm diameter
<b>Operating Temperature:</b>	-15°C to + 40°C
<b>Certification:</b>	CE, UL and RoHS

## Order Codes

<b>CTV-50</b>	0...10Vdc solid core current sensor, 0...10, 0...20, 0...50 A
<b>CTV-250</b>	0...10Vdc solid core current sensor, 0...100, 0...200, 0...250 A
<b>SCTV-50</b>	0...10Vdc split core current sensor, 0...10, 0...20, 0...50 A
<b>SCTV-250</b>	0...10Vdc split core current sensor, 0...100, 0...200, 0...250 A
<b>CTA-50</b>	4...20mA solid core current sensor, 0...10, 0...20, 0...50 A
<b>CTA-250</b>	4...20mA solid core current sensor, 0...100, 0...200, 0...250 A
<b>SCTA-50</b>	4...20mA split core current sensor, 0...10, 0...20, 0...50 A
<b>SCTA-250</b>	4...20mA split core current sensor, 0...100, 0...200, 0...250 A

## Installation

Make sure that all installations are in compliance with all national and local electrical codes. Only qualified individuals that are familiar with codes, standards, and proper safety procedures for high-voltage installations should attempt installation. The CTA sensor is a 2-wire, 4 to 20 mA Loop Powered device that requires a regulated +12 to 30VDC external power source. The CTV current sensor will not require external power, since the power for the current sensor is induced from the conductor being monitored.

These Current Sensors should be used on **Insulated Conductors Only**. The current sensors may be mounted in any position using the mounting holes in the base or snapped directly on to the 35mm DIN rail. Leave a minimum distance of 1" (3 cm) between the current sensor and any other magnetic devices such as contactors and transformers.

The use of a 2 conductor 16 to 22 AWG shielded cable, copper wire only is recommended for all current sensor installations. A maximum wire length of less than 30 meters should be used between the current sensors and the Building Management System or controller. Note: When using a shielded cable, be sure to connect only (1) end of the shield to ground at the controller. Connecting both ends of the shield to ground may cause a ground loop. When removing the shield from the sensor end, make sure to properly trim the shield so as to prevent any chance of shorting. The current sensors terminals are polarity sensitive and represent a linear 4...20mA or 0...10Vdc output signal. The recommended torque to be used on the terminal block connections is 0.67 Nm.

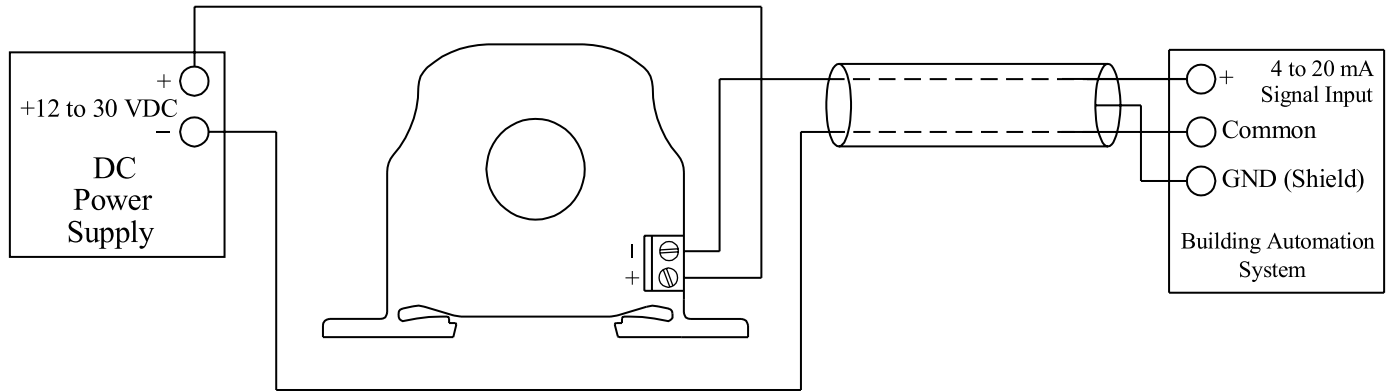
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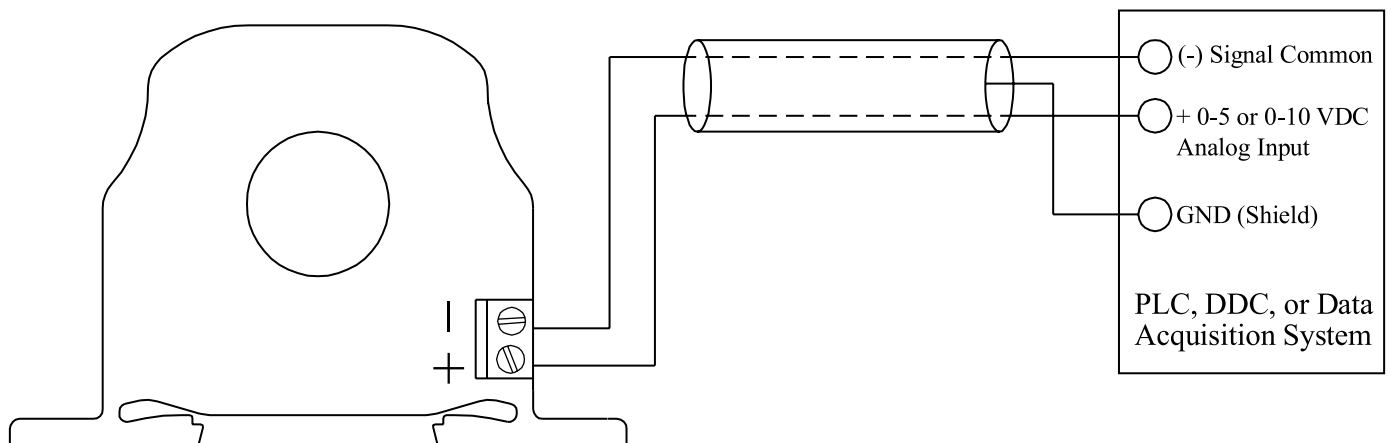
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## Typical Wiring Examples

CTA:



CTV:



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