

CTC SERIES

Signal Converters

CTC Series Signal Converters allow you to use an existing standard 5 A secondary or low-voltage ProteCT™ current transformer over a conductor to produce an industry standard 4–20 mA two-wire, loop-powered signal. The signal is proportional to the current in the primary circuit. The CTC series snaps onto a standard DIN rail. The output is connected to the load and a 24 VDC source and the current transformer is connected.



Signal Converter Applications

Adding Current Monitoring for System Upgrades

- Measure entire plant current consumption or individual machine usage.

Detect Problems Before Failure Occur

- Detect bearing failures on drive motors, open discharge lines on pumps.

Tool Monitoring and Jam Protection

- Measure drive motor HP to determine tool travel or contact with work.
- Monitor motor current use to provide an indication of motor jams.
- Use existing current transformers to monitor the current, and transmit 4–20 mA industry standard output.

Signal Converter Features

Uses any Standard 5 A Current Transformer or the Safer ProteCT™ Low Voltage Design

- Produces a 4–20 mA signal proportional to the AC current through the CT based on CT ratio.
- Two wires in, two wires out: Couldn't be easier.

Fast and Easy Installation

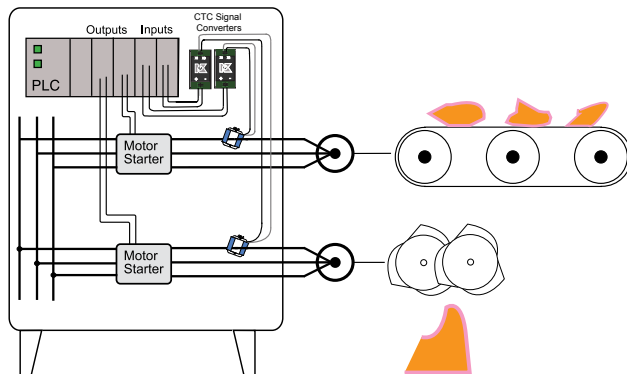
- DIN rail mounting* and 24 VDC loop-powered supply allows for quick and easy two-wire installation.

No Calibration Needed

- The primary current transformer ratio provides the scaling required without any other installer intervention.

*For information on the DIN rail accessories kit, see page 111.

Crusher/Grinder/Shredder Motor Interlocks



- For additional Application Examples, go to www.nktechnologies.com/applications

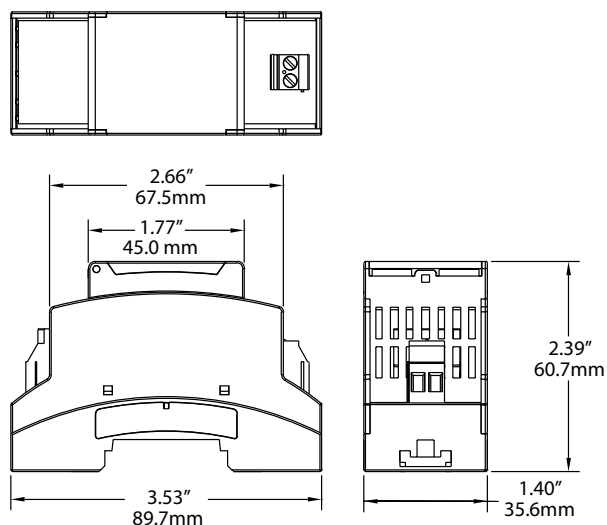
OEMs

Test & Evaluation Units for OEMs

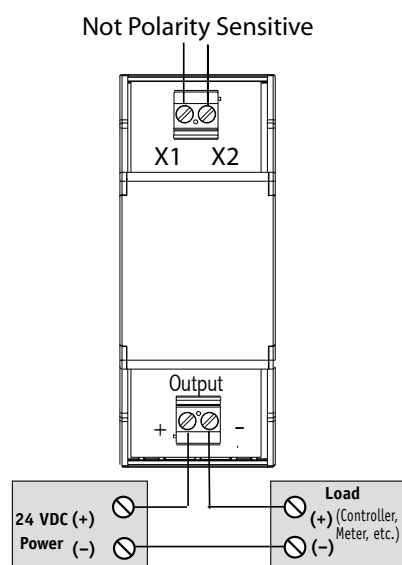
Free program expedites evaluation process. See page 1 for details.



Signal Converter Dimensions



Signal Converter Connections



Notes:

With 5 A secondary current transformers, the secondary must be connected to a load (NK Technologies' CTC converter or other load) when energized.

With ProteCT™ type (low voltage output) current sensors, there is no chance that dangerous voltages will result if the secondary is open when there is current through the sensing window.

Signal Converter Specifications

Power Supply	24 VDC nominal loop-powered, 36 VDC max.
Output	4–20 mA proportional to max. current
Input Range(s)	Based on current sensor ratio
Accuracy	1.0% FS
Response Time	100 ms (to 90% step change)
Max. Inrush Current	300% FS (6 sec. duration)
Frequency Range	10–100 Hz
Case	Polycarbonate
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	UL508 Industrial Control Equipment

Signal Converter Ordering Information

Sample Model Number: CTC333-420-24L-DIN
 Transducer accepts 333 VAC inputs from ProteCT™ current sensors, and produces a corresponding 4–20 mA signal.

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(1) Input CT Type

333	0.333 VAC low voltage ProteCT™
05 A	5 A secondary

(2) Output Signal

420	4–20 mA
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(3) Power Supply

24L	24 VDC loop-powered
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(4) Case Style

DIN	DIN rail mounting case
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