Specifications

Current Measurement	To 0-800 A, seven models
Output Signal	0-5 A or 0-1 A
Accuracy	1% @ 60 Hz, 10-100% of range, 200 to 800 A models 1.5% 150:5 & 150:1 models only
Linearity	0.5%, 10-100% of range
Frequency Range	50/60 Hz
Isolation Voltage	UL tested to 4000 VAC
Primary Circuit Voltage	0.6 KV maximum
Sensing Aperture	ID 2.22" x 1.19" (56.4 x 30.2 mm)
Case	UL94 V-0 Flammability rated thermoplastic
Thermal rating	1.0 @ 30°C (86°F) 0-95% RH Non-condensing Pollution Degree 2 Altitude to 6561 ft (2000 meters)
Listings	UL recognized component File E475131 Meets ANSI/IEEE C57.13 IEEE C57.13.2 & CSA C60044-1-07 CE compliant

For products intended for the EU market, the following is applicable to the CE compliance of the product:
The CT series comply with EN 61010-1 CAT III 600 Vrms maximum line-to-neutral measurement category. If insulated cable is used for the primary circuit, the voltage rating of the measurement category can be improved according to the insulation characteristics given by the cable manufacturer.

Warning! Risk of electric shock or personal injury

Safe operation can only be guaranteed if the transformer is used for the purpose for which it was designed and within the limits of the technical specifications. When this symbol is used, it means you should consult all documentation to understand the nature of potential hazards and the action required to avoid them.

Warning! Risk of hazardous voltage

When operating the transformer, certain parts may carry hazardous live voltage (e. g. primary conductor, secondary terminals). The transformer should not be put into service if the installation is not complete.

Model Number Key

CT - 0200 - 5 - MS

CASE STYLE:
MS - Medium Split-core

OUTPUT:
5 - 0-5 Amps
1 - 0-1 Amps

RANGE:
0150 - 150 : 5 A or 1 A ratio
0200 - 200 : 5 A or 1 A ratio
0300 - 300 : 5 A or 1 A ratio
0400 - 400 : 5 A or 1 A ratio
0500 - 500 : 5 A or 1 A ratio
0600 - 600 : 5 A or 1 A ratio
0800 - 800 : 5 A or 1 A ratio

SENSOR TYPE:
CT - AC current transformer

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NK Technologies

INSTRUCTIONS

CT -MS SERIES

AC Current Transformers

Medium Split-core, 0-5 A and 0-1 A output

Quick "How To" Guide

1. Pop bottom section of sensing ring off by carefully prying clips away and pulling the section downward.
2. Place conductor inside ring and replace bottom section until the clips snap firmly closed.
3. Connect output wiring.
   A. Use up to 22-14 AWG 75°C minimum copper wires. Use #6 fork terminals if desired.
   B. Make sure output load does not exceed product specifications.
   C. Observe polarity: H1 must face source, terminal X1 must connect to the "positive" on the load.
   D. Terminating CT secondary on a block to allow shorting the secondary is advised.
4. Energize the monitored circuit.
5. Verify that the display or controller is reading the output correctly.

292000061 Rev 5

Description

CT-MS Series current transformers produce an output of current in proportion to the monitored circuit current. The wave shape of the output is nearly identical to the monitored circuit wave shape.

Installation

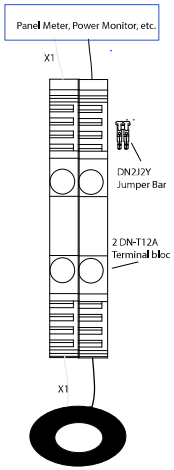
Place wire or bus bar to be monitored through the sensing aperture. Be sure that the H1 side of the CT faces the source of the power.

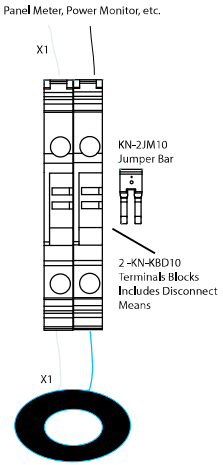
CT-MS Series transformers work in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. They can be mounted in any position or hung directly on wires with a wire tie. Just leave at least one inch distance between sensor and other magnetic devices.

Ratio	Burden	Ratio	Burden
150:5	1.2 VA	150:1	1.0 VA
200:5	1.2 VA	200:1	1.0 VA
300:5	1.2 VA	300:1	1.0 VA
400:5	1.2 VA	400:1	1.0 VA
500:5	5.0 VA	500:1	2.0 VA
600:5	7.5 VA	600:1	2.0 VA
800:5	7.5 VA	800:1	2.0 VA

Use of a shorting block recommended

A terminal block such as DN-T12A and shorting bar DN-2J2YMN from AutomationDirect.com will fill this need well. The KN-KBD10 with the KN-2JM10 shorting bar includes a disconnect. The shorting bar must be inserted before the disconnect is opened.



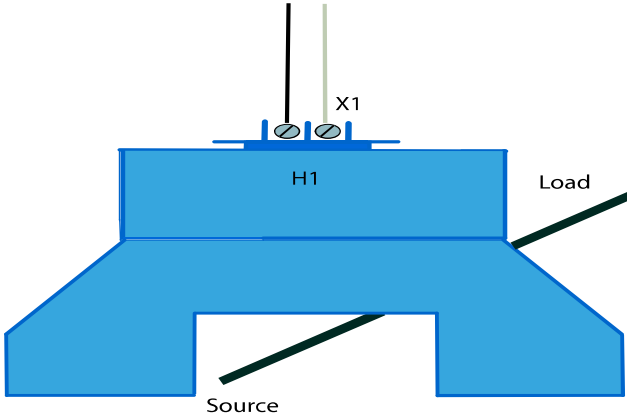


Output Wiring

Connect control or monitoring wires to the sensor. Use up to 22-14 AWG 75°C minium copper wire and tighten terminals to 9 inch-pounds torque. Be sure the output load total burden does not exceed unit burden rating.

Connection Notes:

- Captive screw terminals, use #6 fork terminals or strip insulation 3/8 inch.
- 22-14 AWG solid or stranded.
- Observe Polarity.
- 0000See ordering information and label for monitored circuit range.



Model Range Select

CT-MS Series transformers feature factory calibrated ranges. Select a model with a range higher than the normal running current of the load.

1. Determine the normal operating amperage of your monitored circuit using load specifications or a test ammeter.
2. Select the model with a range that is equal to or slightly higher than the normal operating amperage.

Trouble Shooting

1. **Transformer has no output**
   A. The load is not energized, is not AC or there are more than one phase passing through the aperture. *Check that there is AC current being used and that all conductors through the aperture are connected to the same phase.*
   B. Polarity is reversed. *Check and correct output wiring polarity.*
2. **Output Signal Too Low**
   A. The range may be too high for current being monitored. *Exercise care when selecting the model range. Use a model with a ratio near the actual load being monitored.*

CAUTION!

A current transformer (CT) should never be energized (AC current through the sensing window) with no load connected to the output terminals. Best practice is to terminate the current transformer secondary on a terminal block with the ability to short between two points before extending the leads to the load. If it is ever necessary to remove the load from the CT while it is or could become energized, placing a shorting bar between the secondary leads. This will allow the load to be removed safely. See drawing on the left.