

CTRx Series Rogowski Current Transducers

User Guide

For Use With EM35xxA, iEM35x5 and EM42xx Series Power Meters
Z207424-0A
02/2017



Legal Information

The Schneider Electric brand and any registered trademarks of Schneider Electric Industries SAS referred to in this guide are the sole property of Schneider Electric SA and its subsidiaries. They may not be used for any purpose without the owner's permission, given in writing. This guide and its content are protected, within the meaning of the French intellectual property code (Code de la propriété intellectuelle français, referred to hereafter as "the Code"), under the laws of copyright covering texts, drawings and models, as well as by trademark law. You agree not to reproduce, other than for your own personal, noncommercial use as defined in the Code, all or part of this guide on any medium whatsoever without Schneider Electric's permission, given in writing. You also agree not to establish any hypertext links to this guide or its content. Schneider Electric does not grant any right or license for the personal and noncommercial use of the guide or its content, except for a non-exclusive license to consult it on an "as is" basis, at your own risk. All other rights are reserved. Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material. As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this publication.

Safety Information

Important information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.



NOTICE

Notice is used to address practices not related to physical injury.

Please note: Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material. A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Safety Precautions

Installation, wiring, testing and service must be performed in accordance with all local and national electrical codes.

  DANGER
<p>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH</p> <ul style="list-style-type: none">• Do not use this product for life or safety applications.• Do not install this product in hazardous or classified locations.• Mount this product inside a suitable fire and electrical enclosure.• Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E in the USA, CSA Z462 or applicable local standards.• This equipment must only be installed and serviced by qualified electrical personnel.• Read, understand and follow the instructions before installing this product.• Turn off all power supplying equipment before working on or inside the equipment.• Product may use multiple voltage/power sources. Disconnect ALL sources before servicing.• Use a properly rated voltage sensing device to confirm that power is off. Do not depend on this product for voltage indication.• Current transformer secondaries must be shorted or connected to a burden at all times.• Replace all doors, covers and protective devices before powering the equipment. <p>Failure to follow these instructions will result in death or serious injury.</p>

If this product is to be used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.

Specifications

Type	Description
Output at Rated Current	Custom for EM35xxA, iEM35x5 and EM42xx Series power meters
Accuracy	±1% from 50 to 5000 A
Frequency Range	50/60 Hz
Cable	1000 Vac UL Style 21223 cable with 22 AWG leads
Operating Temperature Range	-15 to +60 °C (+5 to +140 °F)
Storage Temperature Range	-40 to +70 °C (-40 to +158 °F)
Humidity Range	0 to 95% non-condensing
Max. Voltage L-N Sensed Conductor	600 Vac (reinforced insulation rating)
Altitude of Operation	2000 m max.
Compliance Information	
Approvals	EN61010-1; UL61010-1; EN61010-2-032; UL61010-2-032, CAN/CSA-C22.2 No. 61010-1
Installation Category	600 Vac Cat IV, Pollution Degree 2
Warranty	
Limited Warranty	3 years

WARNING

Do not apply current transducers to circuits that have a phase-to-phase voltage greater than their voltage rating unless adequate additional insulation is applied between the primary conductor and the current transducers. Schneider Electric assumes no responsibility for damage of equipment or personal injury caused by products operated on circuits above their published ratings.

Introduction

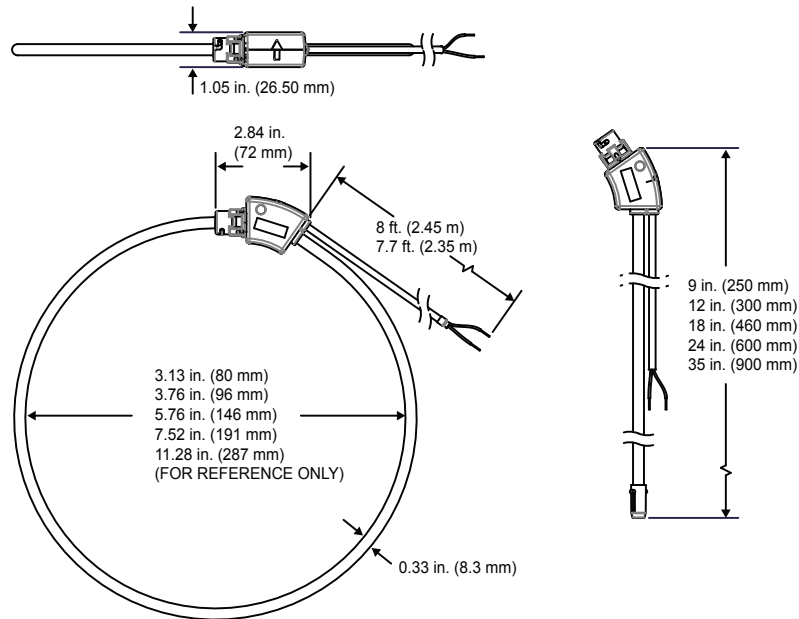
The CTRx Series of Rogowski flexible rope style current transducers (CTs) provide secondary AC voltage proportional to the primary (sensed) current. For use with EM35xxA, iEM35x5 and EM42xx Series power meters, the CTRx Series CTs provide a cost-effective means to transform electrical service amperages to a voltage compatible with monitoring equipment. The flexible core makes it easy to fit in tight enclosures.

These products provide reinforced insulation between the sensed conductor and the output leads.

Part Number Information

Part Number	Description
METSECTR25500	Rogowski CT, 250 mm (9"), 600 Vac, 5 kA, U018 equivalent
METSECTR30500	Rogowski CT, 300 mm (12"), 600 Vac, 5 kA, U018 equivalent
METSECTR46500	Rogowski CT, 460 mm (18"), 600 Vac, 5 kA, U018 equivalent
METSECTR60500	Rogowski CT, 600 mm (24"), 600 Vac, 5 kA, U018 equivalent
METSECTR90500	Rogowski CT, 900 mm (35"), 600 Vac, 5 kA, U018 equivalent

Dimensions



Installation

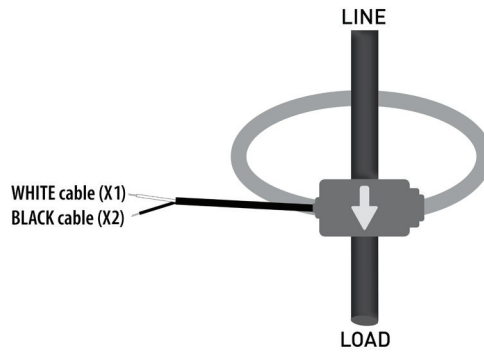
⚡ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

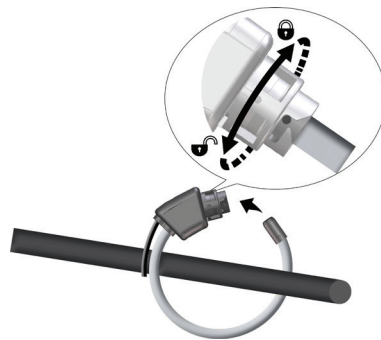
- Do not use this product for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Mount this product inside a suitable fire and electrical enclosure.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E in the USA, CSA Z462 or applicable local standards.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Read, understand and follow the instructions before installing this product.
- Turn off all power supplying equipment before working on or inside the equipment.
- Product may use multiple voltage/power sources. Disconnect ALL sources before servicing.
- Use a properly rated voltage sensing device to confirm that power is off. Do not depend on this product for voltage indication.
- Current transformer secondaries must be shorted or connected to a burden at all times.
- Replace all doors, covers and protective devices before powering the equipment.

Failure to follow these instructions will result in death or serious injury.

1. Turn off all power supplying this device and the equipment in which it is installed before working on the device or equipment.
2. Always use a properly rated voltage sensing device to confirm that all power is off.
3. Connect the CT output leads to the meter inputs. The white wire is the X1 lead. The CTRx CT has an arrow indicating the source side.



4. Release the clasp on one side of the CT and open it on the hinge.
5. Fit the Rogowski coil around the conductor, bringing the coil ends together.
6. Lock the coil by turning the ring clockwise as shown in the diagram below.



7. Reconnect power to the panel.

Schneider Electric
Power Management Operation
295 Tech Park Drive, Suite 100
La Vergne, TN 37086 USA
www.schneider-electric.com

As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this publication.

© 2017 Schneider Electric. All Rights Reserved.

Z207424-0A 02/2017