Measuring current transformer CTAC10/99

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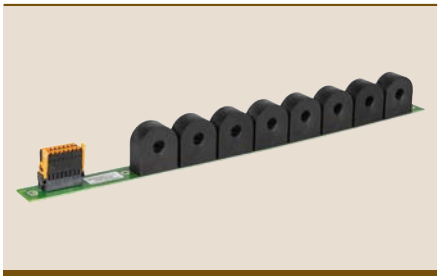


CTAC10/99 measuring current transformers

Device features

- For CMS460/490 current monitoring systems
- For EDS441-LNA-4 insulation fault locators

Approvals

*Only **qualified personnel** are permitted to carry out the work necessary to install, commission and run a device or system.*

Product description

The highly sensitive CTAC10/99 series measuring current transformers convert AC currents into evaluable measurement signals, in combination with CMS460 series current monitors and evaluators.

In addition, the measuring current transformers can be used in combination with insulation fault location systems (EDS441) for medical IT systems. They are designed to measure the locating current generated by a PGH locating current injector.
In combination with EDS series insulation fault locators the test current is converted into evaluable signals.

Application

- for current monitoring systems CMS
- for insolation fault location systems EDS441-LNA

General safety information

Installation, connection and commissioning of electrical equipment shall only be carried out by qualified electricians. Particular attention shall be paid to:

- the current safety regulations,
- the enclosed sheet “Important safety instructions for Bender products”,
- the technical information “Installation instructions for BENDER measuring current transformers“,
- the operating manual of the connected RCM(S) or EDS.

Installation and connection

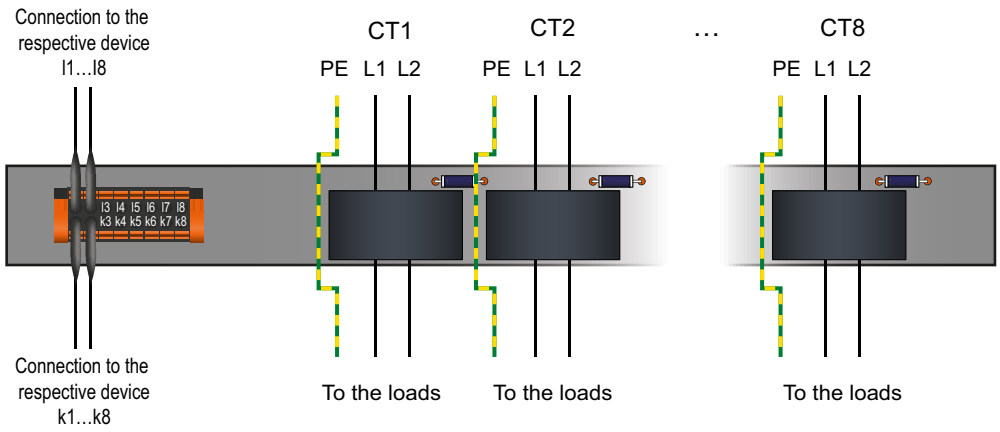
Prior to installation and before any work is carried out on the connecting cables, make sure that the mains power is disconnected. Failure to comply with this safety information may cause electric shock to personnel. Substantial damages to the electrical installation and destruction of the device may occur.

Standards

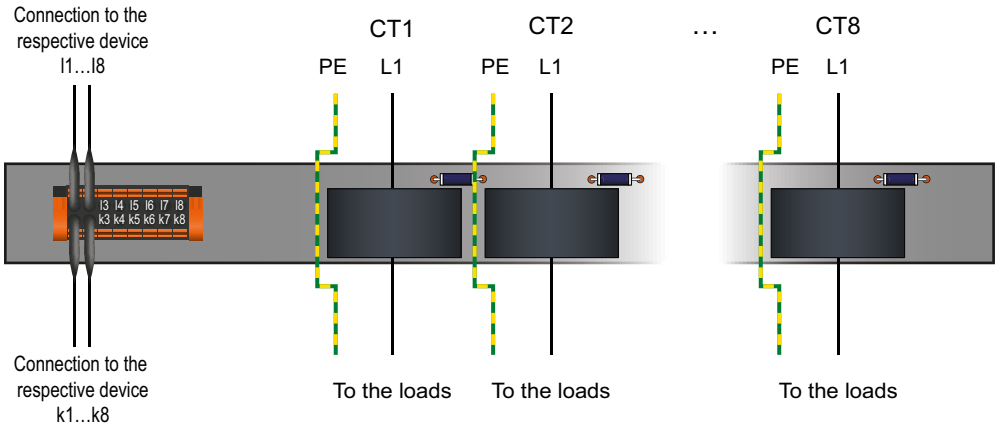
CTAC10/99 measuring current transformers comply with the device standards:

- IEC 60664-1

Wiring diagram – EDS system



Wiring diagram – CMS system



Technical data

Insulation coordination acc. to IEC 60664-1

Rated insulated voltage	AC 300 V
Rated impulse voltage	4 kV
Overvoltage category	III
Polution degree	3
Protective separation	(prim)-(sec)
Voltage test according to IEC 61010-1	2,2 kV

For primary routing through the current transformer, use an insulated cable which at least complies with the requirements for basic insulation.

CT circuit

Rated primary residual current	20 A
Rated secondary residual current	5.55 mA
Rated burden	max. 27 Ω
Nominal power	0.83 mVA
Frequency range	42 Hz…3 kHz
Rated continuous thermal current I_{cth}	80 A
Rated short-time thermal current I_{th}	60 x I_{cth} = 2.4 kA/1 s
Rated dynamic current I_{dyn}	2.5 x I_{th} = 6.0 kA/40 ms

Environment

Operating temperature	-25…+55 °C
Climatic class acc. to IEC 60721	
Stationary use (IEC 60721-3-3)	3K5 (except condensation and formation of ice)
Transport (IEC 60721-3-2)	2K5
Long-time storage (IEC 60721-3-1)	1K5
Classification of mechanical conditions IEC 60721	
Stationary use (IEC 60721-3-3)	3M4
Transport (IEC 60721-3-2)	2M2
Long-time storage (IEC 60721-3-1)	1M3

Connection

Connector	TRM Connect 16x3,5
Clamping range, rated connection	0.75…1.5 mm²
single wire	0.75…1.5 mm²
flexible	0.75…1.5 mm²
flexible with plastic collar ferrule acc. to DIN 46228/4	0.75…1 mm²
flexible with ferrule acc. to DIN 46228/1	0.75…1.5 mm²
Stripping length	10 mm

Connection EDS, CMS

Single wire ≥ 0.75 mm²	0…1 m
Single wire, twisted ≥ 0.75 mm²	0…10 m

Other

Degree of protection, internal components (DIN EN 60529)	
Degree of protection, terminals (IEC 60529)	
Screw mounting	Mounting bracket Phoenix 1201578 USA 10
Screw	Pan head screw TX10 M3.0x8
Flammability class	UL94 V-0
Approvals and certifications	UL508 open type device
Weight	≤ 450 g

Ordering information

Inside diameter	Type	Art. No.
10 mm	CTAC10/99	B98110021

Accessories

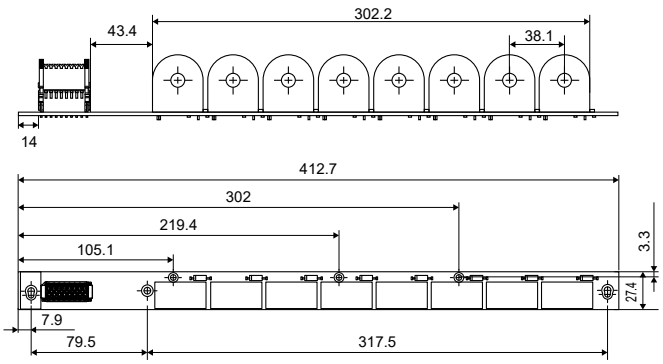
Description	Art. No.
Connector TRM Connect 16x3,5	A370376
DIN rail adapter	A309100

Suitable system components

Description	Art. No.
EDS441-LNA	B91080208
CMS460-D-1	B94053017
CMS460-D-2	B94053018

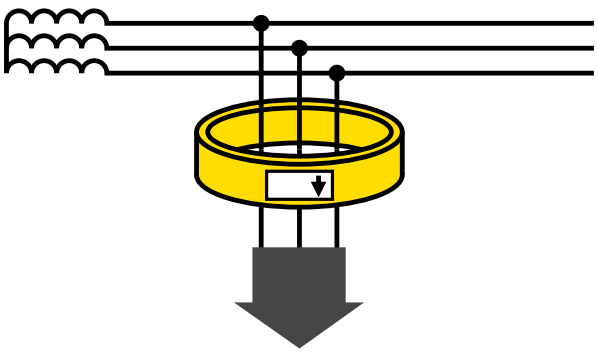
Dimension diagram

Dimensions in mm ± 0.5

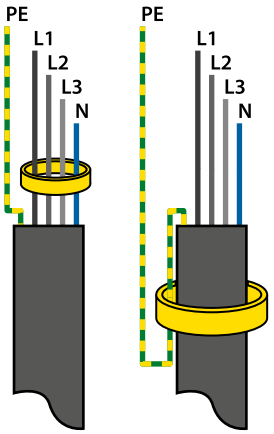


Installation instructions

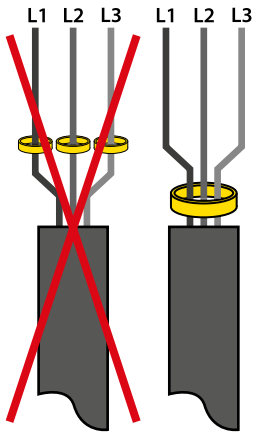
- Do not pass shielded cables through the measuring current transformer.
- As a general principle, the PE conductor and low-resistance conductor loops must not be passed through the measuring current transformer!



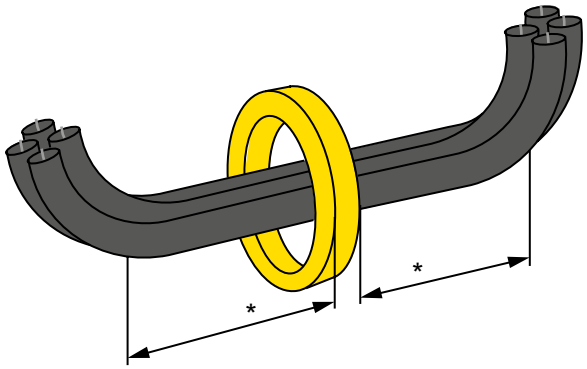
It is important that the leads are passed through the measuring current transformer in the right direction



Never pass a PE conductor through the measuring current transformer

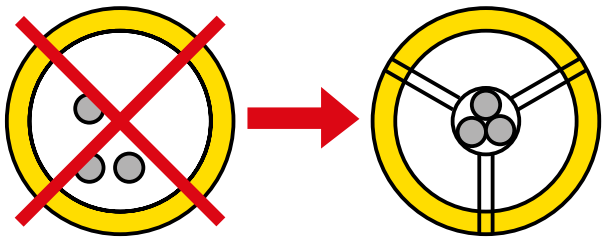


Make sure that all current-carrying leads are passed through the measuring current transformer



* Distance to the 90° angle = 2 x transformer outside diameter

Bending a lead is only permissible with a certain distance to the current transformer



The leads must be aligned with the centre of the measuring current transformer

BENDER
The Power in Electrical Safety©

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