Measuring current transformers of the WR... series

WR115x305 measuring current transformer

Device features

- For RCMS460/490 series residual current monitoring systems
- For RCM420, RCM460 and RCM470 series residual current monitors
- For EDS460 / 490 and EDS470 series insulation fault locators

Standards, approvals and certifications

AE25

Product description

The highly sensitive WR… series measuring current transformers of rectangular type convert AC currents into evaluable measurement signals, in combination with RCM and RCMS series residual current monitors and evaluators.

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

Connection to the respective devices is via a two-wire cable.

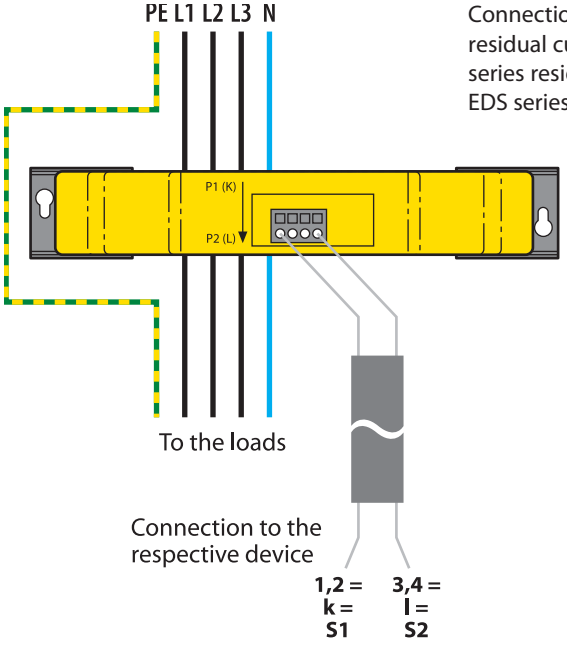
Standards

WR… series measuring current transformers comply with the device standard: IEC 60044-1.

Installation instructions

- Make sure that all live conductors are routed through the measuring current transformer
- Do not route shielded conductors through the measuring current transformer
- Never route a PE conductor through the measuring current transformer!

Wiring diagram



Connection to the respective RCMS series residual current monitoring system, RCM series residual current monitor or to an EDS series insulation fault location system.

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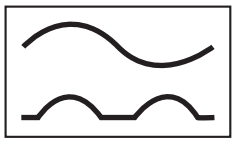


Technical data

Insulation coordination acc. to IEC 60664-1 / IEC 60664-3

Rated insulation voltage	800 V
Rated impulse voltage/pollution degree	8 kV / III

CT circuit

Rated primary residual current	30 mA…10 A
Rated secondary residual current	0.0167 A
Rated transformation ratio K_n	10 / 0.0167 A
Rated burden	≤ 180 Ω*
Nominal power	0.05 VA
Frequency range	42 Hz…3 kHz
Rated continuous thermal current I_{cth}	40 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 °C…+70 °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 (except condensation and formation of ice)
Long-time storage (IEC 60721-3-1)	1K5 (except condensation and formation of ice)
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

Connection	cage clamp terminals
rigid/flexible/conductor sizes	0.08…2.5 / 0.08…2.5 mm² / 28…12 AWG
Stripping length	8…9 mm
Connection EDS, RCM(S) measuring current transformers	
Single wire ≥ 0.75 mm²	0…1 m
Single wire, twisted ≥ 0.75 mm²	0…10 m
Shielded cable ≥ 0.5 mm²	0…40 m
Recommended cable	
(shielded, shield on one side connected to L-conductor , not connected to earth)	J-Y (St) Y min. 2x0.8

Other

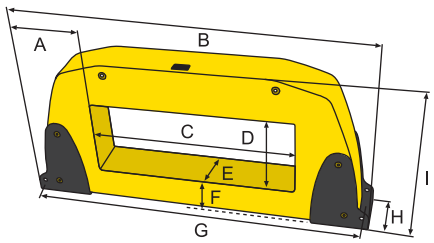
Degree of protection, internal components (IEC 60529)	IP40
Degree of protection, terminals (IEC 60529)	IP 20
Screw mounting	M5 with mounting brackets
Flammability class	UL94 V-0
Operating manual	TBP409014
Approvals and certifications	UL under development, GOST

* The rated burden may vary depending on the respective device data sheet.

Ordering information

Type	Internal dimensions	Mounting brackets	Art. No.
WR70x175	70 x 175 mm	×	B 9808 0609
WR115x305	115 x 305 mm	×	B 9808 0610

Dimension diagram

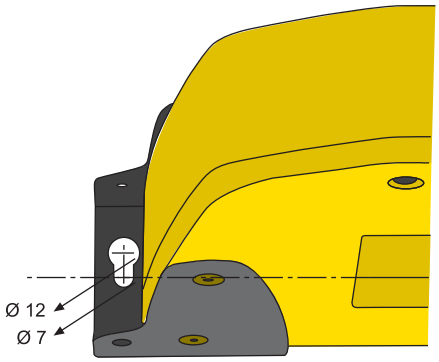


Dimensions

Type	A	B	C	D	E	F	G	H	I	Weight
WR70x175	90.75	357.5	176	71	56.5	51.5	337.5	61	190	2.96 kg
WR115x305	110	526	306	116	67	53	506	72.5	242.5	5.56 kg

Dimensions in mm

Mounting



Selection list

Type	RCM420	RCM470	RCMS460 RCMS490	EDS460 EDS490	EDS470
WR70x175	×	×	×	×	×
WR115x305	×	×	×	×	×

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