

Measuring current transformers of the WR... series



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WR115x305 measuring current transformer

Device features

- For RCMS460/490 residual current monitoring systems
- For RCM420 residual current monitors
- For EDS460/490 insulation fault locators

Approvals



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 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.

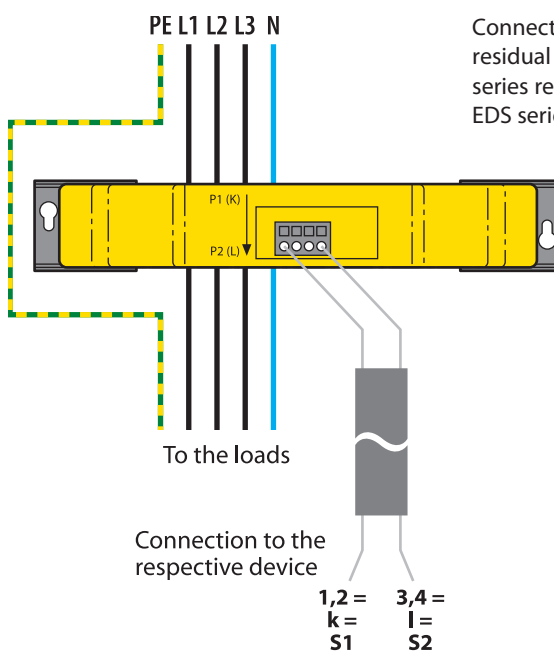
Standards

WR... series measuring current transformers comply with the device standards: IEC 60044-1, DIN EN 60044-1, 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.



Technical data

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

Rated insulation voltage	800 V
Rated impulse voltage/pollution degree	8 kV/3

CT circuit

Rated primary residual current	10 A
Rated secondary residual current	0.0167 A
Rated transformation ratio K_n	10/0.0167 A
Rated burden	max. 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_{tth}	$60 \times I_{cth} = 2.4 \text{ kA}/1 \text{ s}$
Rated dynamic current I_{dyn}	$2.5 \times I_{tth} = 6.0 \text{ kA}/40 \text{ ms}$

Environmental conditions

Operating temperature	-25...+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 acc. to 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 spring terminal
Connection	
rigid/flexible/conductor sizes	0.08...2.5/0.08...2.5 mm ² (AWG 28...12)
Stripping length	8...9 mm

Connection EDS, RCM(S) measuring current transformers

Single wire $\geq 0.75 \text{ mm}^2$	0...1 m
Single wire, twisted $\geq 0.75 \text{ mm}^2$	0...10 m
Shielded cable $\geq 0.5 \text{ mm}^2$	0...40 m
Shielded cable (shield on one side connected to L-conductor, not connected to earth)	recommended: J-Y(St)Y min. 2x0.8

Other

Degree of protection, internal components (DIN EN 60529)	IP40
Degree of protection, terminals (DIN EN 60529)	IP20
Screw mounting	M5 with mounting brackets
Flammability class	UL94 V-0
Documentation number	D00076
Approval	UL (under consideration)

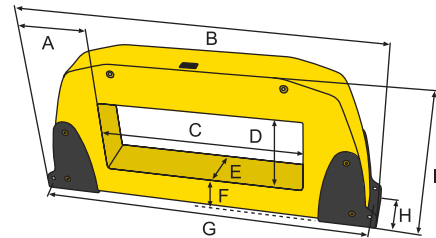
Ordering information

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

Selection list

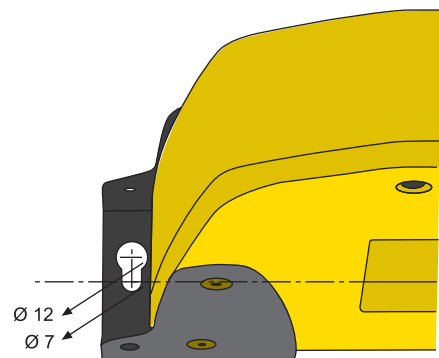
Type	RCM420	RCMS460 RCMS490	EDS460 EDS490
WR70x175	■	■	■
WR115x305	■	■	■

Dimension diagram



Type	Dimensions (mm)									Weight
	A	B	C	D	E	F	G	H	I	
WR70x175	90.75	357.5	176	71	56.5	51.5	337.5	61	190	2960 g
WR115x305	110	526	306	116	67	53	506	72.5	242.5	5560 g

Mounting





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