

WR Series

Rectangular Current Transformers for AC Systems
For Use With RCM, RCMS, and EDS Series Devices



WR Series Current Transformers



Current transformer WR115x305

Features

- For RCM and RCMS series ground fault monitors for grounded systems
- For EDS460 and EDS490 series ground fault location modules for ungrounded systems

Description

The WR series current transformers are highly sensitive measuring tools which measure AC currents and convert them into evaluatable signals. These are specially designed to work with BENDER RCM and RCMS series ground fault monitors for grounded and high-resistance grounded systems, as well the EDS series of ground fault location evaluators for ungrounded systems.

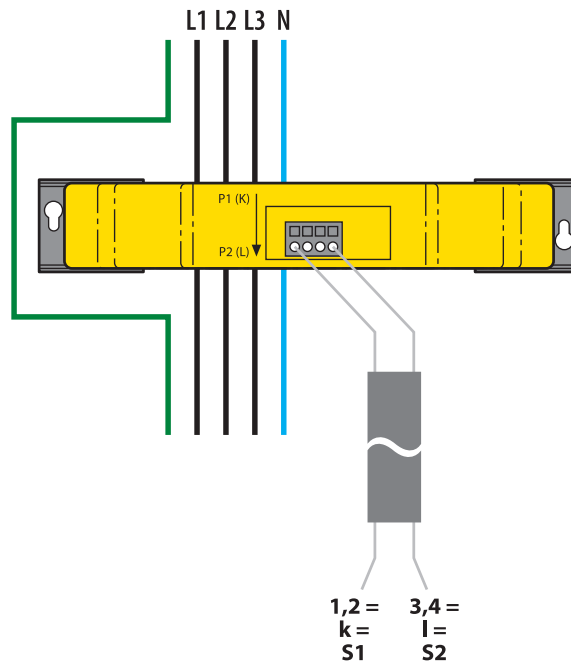
WR series current transformers have a large, rectangular opening, appropriate for large systems.

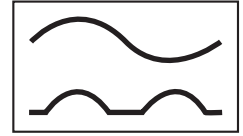
Connection to the respective devices is via a two-wire cable.

Installation instructions

- All conductors, including the neutral if it is being used, should be routed through the current transformer.
- The ground wire should not be routed through the current transformer.

Wiring diagram





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 ground fault current	30 mA... 10 A
Rated secondary ground fault 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_{th}	$60 \times I_{cth} = 2.4 \text{ kA} / 1 \text{ s}$
Rated dynamic current I_{dyn}	$2.5 \times I_{th} = 6.0 \text{ kA} / 40 \text{ ms}$

Environmental conditions

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

Type of connection	cage clamp spring terminal
rigid / flexible / conductor sizes	0.08...2.5 / 0.08...2.5 mm ² / 28...12 AWG
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
Recommended cable	
(shielded, shield on one side connected to line conductor, not connected to PE)	J-Y(ST)Y min. 2 x 0.8

Other

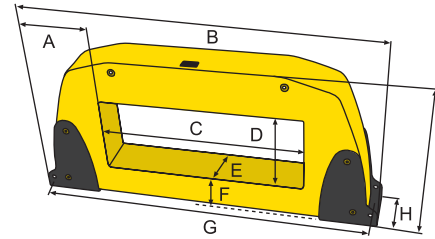
Degree of protection, internal components (IEC 60529)	IP40
Degree of protection, terminals (IEC 60529)	IP20
Screw mounting	M5 with mounting brackets
Flammability class	UL94V-0
Standards	IEC 60044-1
Instruction leaflet	BP409014
Approval	UL under consideration, GOST

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

Ordering information

Type	Inside diameter	Fixing Mounting bracket	Art. No.
WR70x175	70 x 175 mm	×	B 9808 0609
WR115x305	115 x 305 mm	×	B 9808 0610

Dimensions (mm)

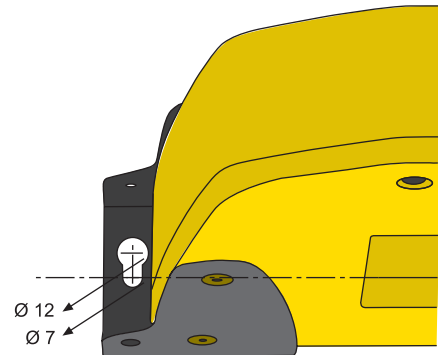


Dimensions

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

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



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