
LINETRAXX® WF... series

Consisting of an RCC420 signal converter and a WF... measuring current transformer

Flexible WF170, WF250, WF500, WF800, WF1200, WF1800 measuring current transformers



LINETRAXX® WF... series

Consisting of an RCC420 signal converter and a WF... measuring current transformer

Flexible measuring current transformers
WF170, WF250, WF500, WF800, WF1200, WF1800



Device features

- Flexible measuring current transformer in different lengths
- Space-saving design, quick installation
- Easy retrofitting into existing installations
- Can be installed without the need to disconnect the conductors
- Connection monitoring WF... measuring current transformers
- For RCMS460/490 series residual current monitoring systems
- For RCM420-D9 series residual current monitors
- Analogue output (U , I) for external measuring devices
- RCC420 with push-wire terminals (two terminals per connection)

Product description

Flexible WF... series measuring current transformers are highly sensitive measuring current transformers, which measure AC currents in conjunction with a RCMS460/490 series residual current monitoring system and convert them into an evaluable measuring signal. They consist of one flexible WF... measuring current transformer and one RCC420 signal converter.

Connection to the respective residual current monitor is via a two-wire cable.

Application

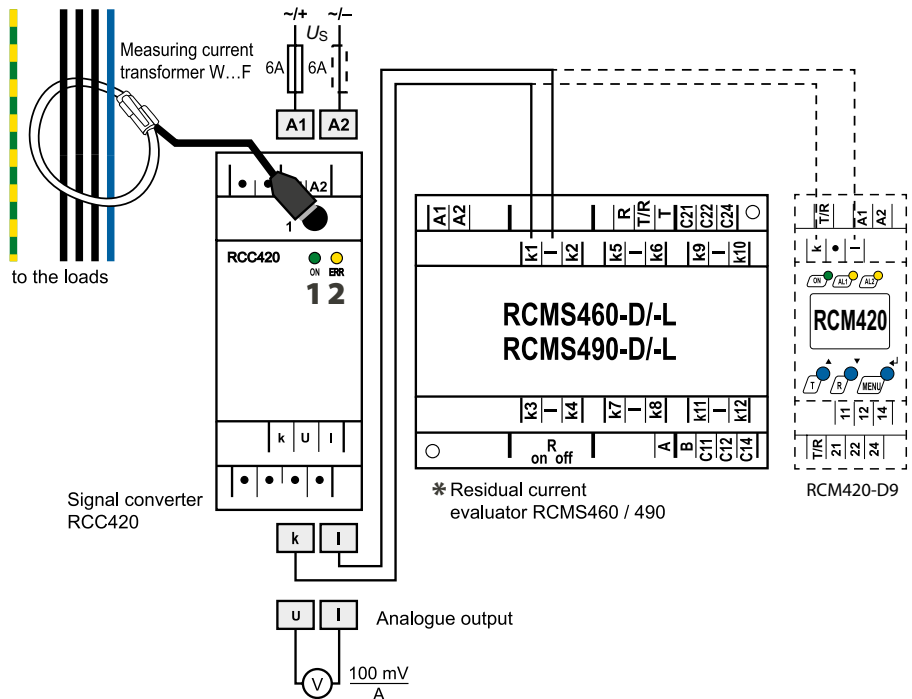
- Residual, fault and nominal current monitoring of loads and systems which cannot be switched off
- EMC monitoring of TN-S systems for "stray currents" and additional N-PE connections in the central earthing point (CEP)
- Monitoring of PE and equipotential bonding conductors to ensure they are free of current

Installation instructions

- Make sure to pass all live conductors through the measuring current transformer
- Arrange the conductors so that they pass centrally at right angle through the opening
- Do not place the measuring current transformer close to strong magnetic fields

Wiring diagram

Connection to the respective RCMS460/490 residual monitoring system or to an RCM420-D9 residual current monitor.



1	Power On LED "ON": lights up when voltage is available and when the device is in operation
2	Alarm LED "ERR": Lights in the event of a short-circuit and interruption of the WF...
*	When using software version D233 V 2.21 or an earlier version, switch off CT monitoring When using software version D233 V 2.31 or higher, set the CT type to "flex".



Technical data

Electrical safety

Standard: RCC420	IEC 61010-2-030: 2004-05-01
Pollution degree	3
Rated insulation voltage	250 V
Standard: WF...	IEC 61010-1 and IEC 61010-2-032 CAT III
Pollution degree	2
Rated insulation voltage (CAT III)	1000 Vrms or DC

Supply voltage

Supply voltage U_s	see ordering information
Power consumption	≤ 3 VA

Measuring circuit

Measuring range	100 mA...20 A
Rated transformation ratio	K_n (U - I): 100 mV/A, K_N (k - I): 1.67 mA/A
Rated burden (signal output k, I)	68 Ω
Rated frequency	42...2000 Hz
Rated continuous thermal current I_{cth}	1 kA
Rated short-time thermal current I_{th}	60 kA/1 s
Rated dynamic current I_{dyn}	150 kA/40 ms

Environment/EMC

EMC	IEC 62020
Operating temperature	- 25...+ 55 °C

Climatic class acc. to IEC 60721 (except condensation and formation of ice)

Stationary use (IEC 60721-3-3)	3K22
Transport (IEC 60721-3-2)	2K11
Long-time storage (IEC 60721-3-1)	1K22

Classification of mechanical conditions acc. to IEC 60721

Stationary use (IEC 60721-3-3)	3M11
Transport (IEC 60721-3-2)	2M4
Long-time storage (IEC 60721-3-1)	1M12

Connection RCC420

Connection type	push-wire terminal
Connection properties	
rigid	0.2...2.5 mm ² (AWG 24...14)
flexible without ferrule	0.2...2.5 mm ² (AWG 24...14)
flexible with ferrule	0.2...1.5 mm ² (AWG 24...16)
Stripping length	10 mm
Opening force	50 N
Test opening, diameter	2.1 mm
Connection measuring current transformer W...F	PS/2 plug
Cable length WF...	2 m

Cable lengths RCMS-RCC420...

Single wire ≥ 0.75 mm ²	0...1 m
Single wire, twisted ≥ 0.75 mm ²	0...10 m
Shielded cable ≥ 0.5 mm ²	0...40 m
Shielded cable (shield to terminal I, not connected to earth)	recommended: J-Y(St)Y min. 2x0.8

Other

Operating mode	continuous operation
Mounting	any position
Degree of protection, internal components (IEC 60529)	IP30
Degree of protection, terminals (IEC 60529)	IP30
Enclosure material RCC420	polycarbonate
Screw mounting	2 x M4 with mounting clip
DIN rail mounting acc. to	IEC 60715
Flammability class	UL94V-0
Documentation number	D00072
Weight	RCC 420 ≤ 160 g
WF170 ≤ 160 g	WF800 ≤ 230 g
WF250 ≤ 180 g	WF1200 ≤ 310 g
WF500 ≤ 200 g	WF1800 ≤ 430 g

Note: The measuring current transformer is adapted to the associated signal converter RCC420.

Ordering information

Type	Length A measuring current transformer	Supply voltage U_s *	Art. No.
WF170-1	170 mm	DC 9.6...94 V; AC 16...72 V, 42...460 Hz	B78080201
WF170-2		DC 70...300 V; AC 70...300 V, 42...460 Hz	B78080202
WF250-1	250 mm	DC 9.6...94 V; AC 16...72 V, 42...460 Hz	B78080203
WF250-2		DC 70...300 V; AC 70...300 V, 42...460 Hz	B78080204
WF500-1	500 mm	DC 9.6...94 V; AC 16...72 V, 42...460 Hz	B78080205
WF500-2		DC 70...300 V; AC 70...300 V, 42...460 Hz	B78080206
WF800-1	800 mm	DC 9.6...94 V; AC 16...72 V, 42...460 Hz	B78080207
WF800-2		DC 70...300 V; AC 70...300 V, 42...460 Hz	B78080208
WF1200-1	1200 mm	DC 9.6...94 V; AC 16...72 V, 42...460 Hz	B78080209
WF1200-2		DC 70...300 V; AC 70...300 V, 42...460 Hz	B78080210
WF1800-1	1800 mm	DC 9.6...94 V; AC 16...72 V, 42...460 Hz	B78080221
WF1800-2		DC 70...300 V; AC 70...300 V, 42...460 Hz	B78080222

* Absolute values

Residual current monitoring systems

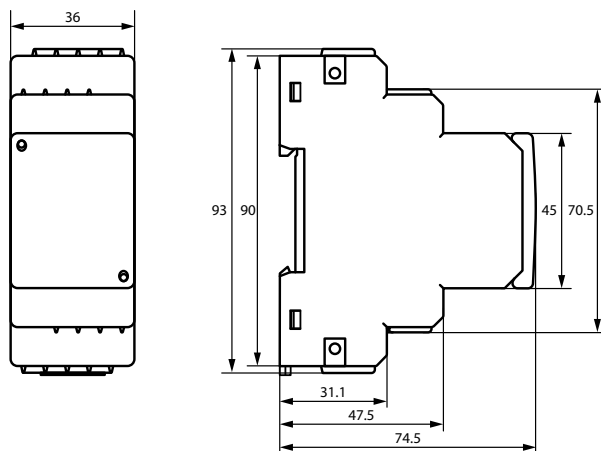
Type	Art. No.
RCM420-D9-2	B74014018
RCMS460-D-1	B94053001
RCMS460-D-2	B94053002
RCMS460-L-1	B94053003
RCMS460-L-2	B94053004
RCMS490-D-1	B94053005
RCMS490-D-2	B94053006
RCMS490-L-1	B94053007
RCMS490-L-2	B94053008

Accessories

Type designation	Type	Art. No.
Mounting clip for screw mounting (1 piece per device)	XM420 (RCC420)	B98060008

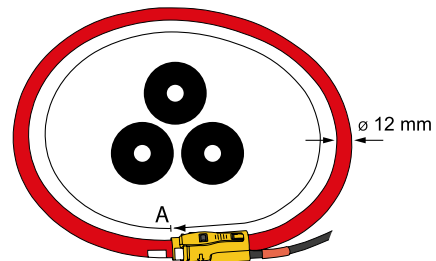
Dimension diagram XM420

Dimensions in mm



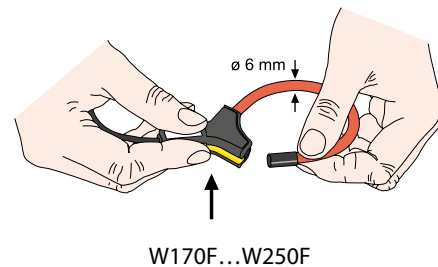
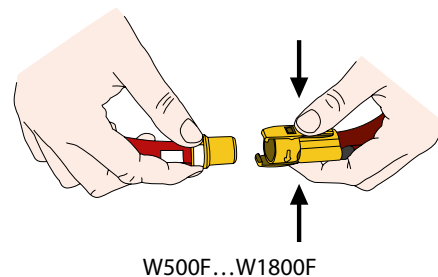
Dimension diagram WF... series measuring current transformers

A = For details about the length of the measuring current transformer refer to ordering information



Locking connector measuring current transformer

Keep the locking connector clean



Bender GmbH & Co. KG

Londorfer Straße 65
35305 Grünberg
Germany

Tel.: +49 6401 807-0
info@bender.de
www.bender.de



© Bender GmbH & Co. KG, Germany
Subject to change!

The specified standards take into account the edition valid until 12.2024 unless otherwise indicated.