

Measuring current transformers of the W...AB series



W60AB measuring current transformer

Device features

- W20AB...W60AB for AC / DC sensitive RCMA420 series residual current monitors
- W20AB...W210AB for RCMS460 / 490 series residual current evaluators or for RCMA423 residual current monitor

Approvals and certifications



Product description

Measuring current transformers of the W...-AB series are measuring current transformers which in combination with devices of the RCMA420 / 423 resp. RCMS460 / 490 series convert AC and DC currents into evaluable measurement signals. Connection to the respective devices is via a five-wire or six-wire cable. The CTs can be used in DC, AC, and 3(N)AC systems. If the measuring current transformers are to be connected to an RCMS460 / 490 system, one AN420 or AN110 power supply unit is required for six measuring current transformers each.

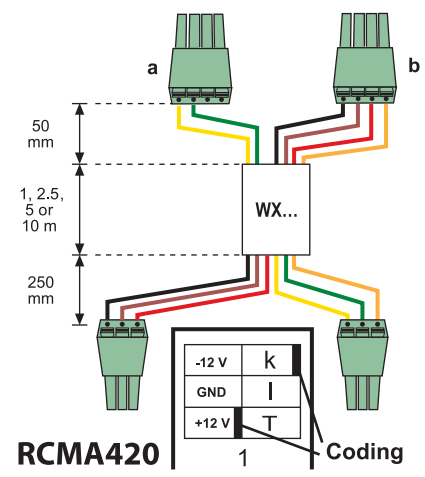
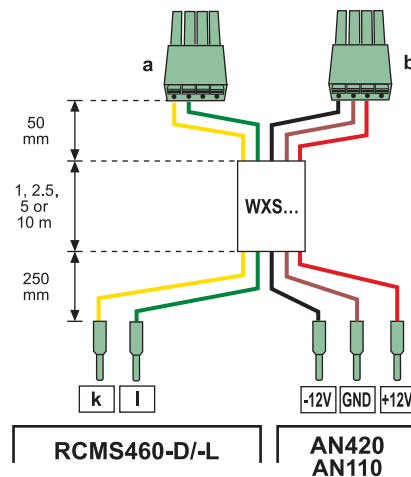
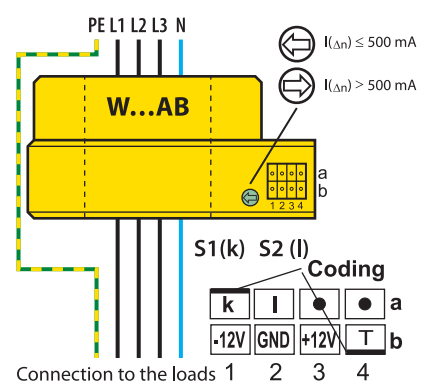
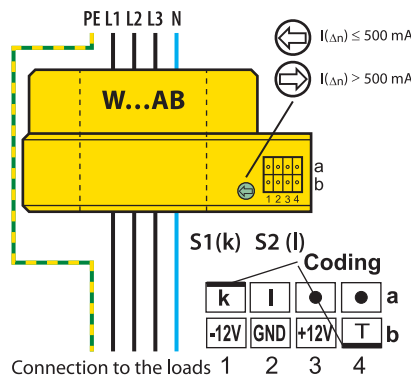
Standards

The measuring current transformers of the W...-AB series comply with the requirements of 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

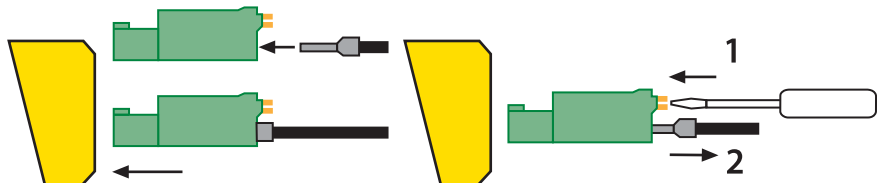
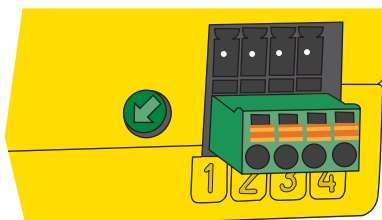


Connection to the RCMS460 / 490 residual current monitor using the WXS... connecting cable.

Connection to the RCMA420/423 residual current monitor using the WX... connecting cable.

Colour coding for WXS... and WX...:

k = yellow, I = green, -12 V = black, GND = brown, +12 V = red, test (T) = orange





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

Supply voltage

Supply voltage U_s	DC + / - 12 V
Operating range of U_s	0.95...1.05 x U_s
Power consumption	≤ 2.5 VA

CT circuit

Rated primary residual current W35AB...W120AB	10 mA...10 A
Rated primary residual current W20AB	10...500 mA
Rated primary residual current W210AB	300 mA...10 A
Rated continuous thermal current I_{cth}	40 A
Rated short-time thermal current I_{cth}	2.4 kA / 1 s
Rated dynamic current I_{dyn}	6.0 kA / 40 ms

EMC

EMC	IEC 62020: 2005-11
Ambient temperature, operation	-10 °C...+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 (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	plug-in connectors
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Connection RCMA / RCMS-measuring current transformer

refer to table "Connecting cables"

Other

Degree of protection, internal components (IEC 60529)	IP40
Degree of protection, terminals (IEC 60529)	IP20
Screw mounting	M5 with mounting bracket
DIN rail mounting (only W20AB...W60AB)	with snap-on mounting
Flammability class	UL94V-0
Operating manual	TBP409012

Ordering information

Type	Inside diameter	Mounting		Art. No.
		DIN rail	screw mounting	
W20AB	∅ 20 mm	×	×	B 9808 0008
W35AB	∅ 35 mm	×	×	B 9808 0016
W60AB	∅ 60 mm	×	×	B 9808 0026
W120AB	∅ 120 mm	--	×	B 9808 0041
W210AB	∅ 210 mm	--	×	B 9808 0040

Power supply unit

Type	Supply voltage	Art. No.
AN 110-1 (Power supply unit)	AC 20...60 V DC 18...72 V	B 9405 3101
AN110-2 (Power supply unit)	AC 100...240 V DC 100...535 V	B 9405 3102
AN420-2	DC 70...300 V / AC 42...460 Hz 70...276 V	B 9405 3100

Ordering information

Connecting cables

Type	For device	Length / m	Art. No.
WX-100	RCMA420 / 423	1	B 9808 0503
WX-250	RCMA420 / 423	2.5	B 9808 0504
WX-500	RCMA420 / 423	5	B 9808 0505
WX-1000	RCMA420 / 423	10	B 9808 0511
WXS-100	RCMS460 / 490	1	B 9808 0506
WXS-250	RCMS460 / 490	2.5	B 9808 0507
WXS-500	RCMS460 / 490	5	B 9808 0508
WXS-1000	RCMS460 / 490	10	B 9808 0509

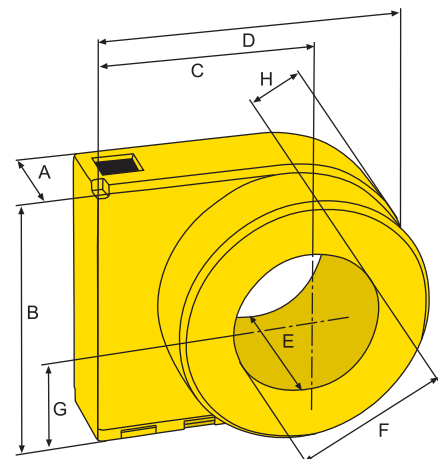
Control cable LiYY flexible, 6 x AWG 20 (6 x 0.56 mm²), approved by UL 2464

Accessories

Type	Art. No.
Snap-on mounting for W20AB, W35AB	B 9808 0501
Snap-on mounting for W60AB	B 9808 0502

Dimension diagram

Dimensions in mm

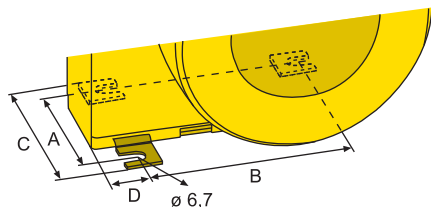


Dimensions

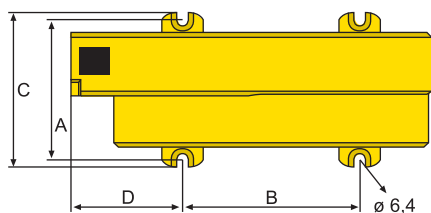
Type	A	B	C	D	E	F	G	H	Weight
W20AB	30	56.3	50	76.4	48.5	∅ 20	56.3	16.4	0.18 kg
W35AB	30	79.2	62	99.5	55	∅ 35	79.2	20	0.35 kg
W60AB	37	116.4	79	135	67	∅ 60	116.4	24	0.57 kg
W120AB	37	191.5	116.5	210	67	∅ 120	191.5	33.5	1.92 kg
W210AB	45	304.5	173	323	80	∅ 210	304.5	45	5.8 kg

Mounting details

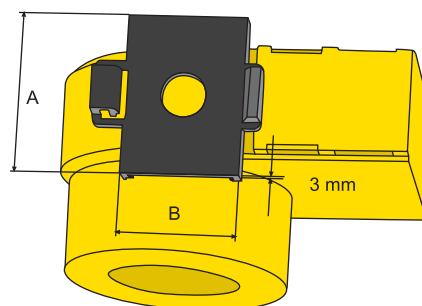
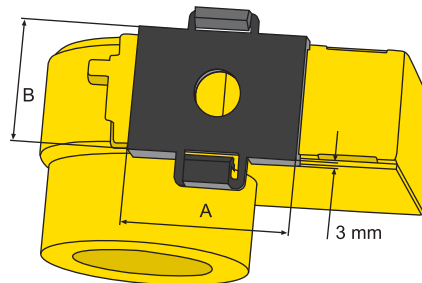
Screw mounting with mounting brackets: W20AB, W35AB, W60AB



Screw mounting: W120AB, W210AB



Snap-on mounting on DIN rail, for vertical or horizontal mounting: W20AB, W35AB, W60AB



4.5

Dimensions screw mounting				
Type	A	B	C	D
W35 (mounting with 2 mounting brackets diagonal)	47	21,4	63	18.6
W35 (mounting with 2 mounting brackets diagonal)	47	49,8	63	12.1
W60AB (mounting with up to 3 mounting brackets)	54	66	70	17.7
W120AB	81	103	90,6	65
W210AB	98	180	117.1	83

Dimensions in mm

Dimensions snap-on mounting		
Type	A	B
W20AB	43.5	32
W35AB	43.5	32
W60AB	50	39

Dimensions in mm

Selection list			
Type	RCMA420	RCMA423	RCMS460 / 490
W20AB	×	×	×
W35AB	×	×	×
W60AB	×	×	×
W120AB	--	×	×
W210AB	--	×	×