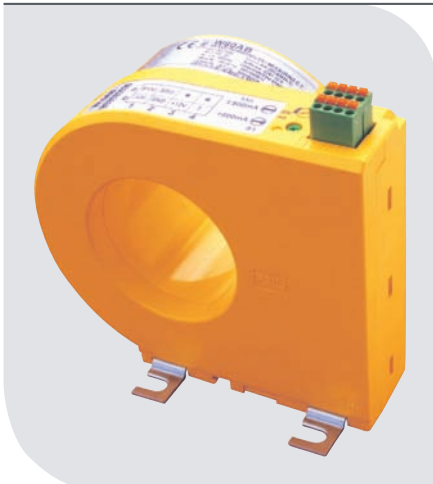


## Measuring current transformers of the W...AB series



Measuring current transformer W60AB



Measuring current transformer W35AB on DIN rail

### Device features

- W20AB...W60AB for AC / DC sensitive residual current monitors of the RCMA420 series
- W20AB...W210AB for residual current evaluators of the RCMS460 / 490 series

### Approvals



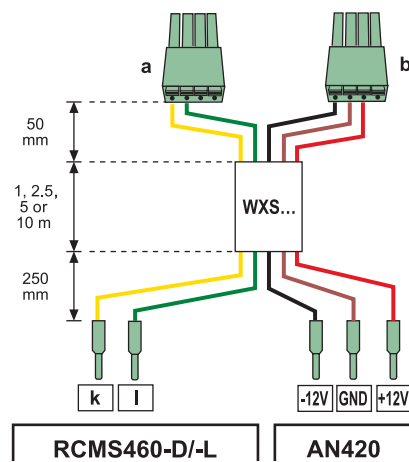
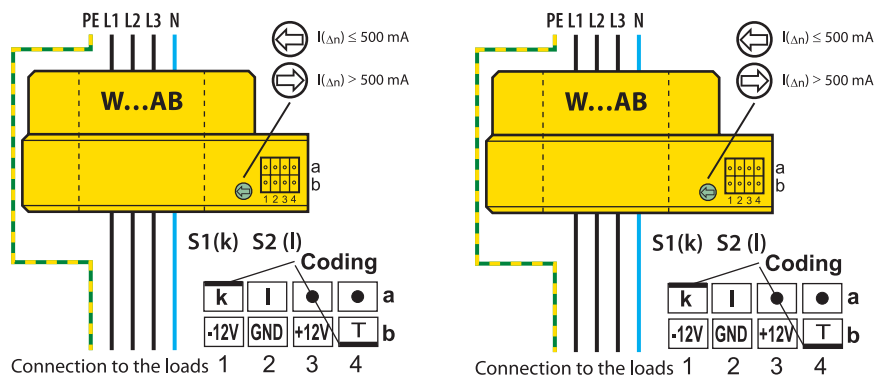
### Product description

Measuring current transformers of the W...AB series are measuring current transformers which in combination with devices of the RCMA420 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 power supply unit is required for six measuring current transformers each.

### Installation instructions

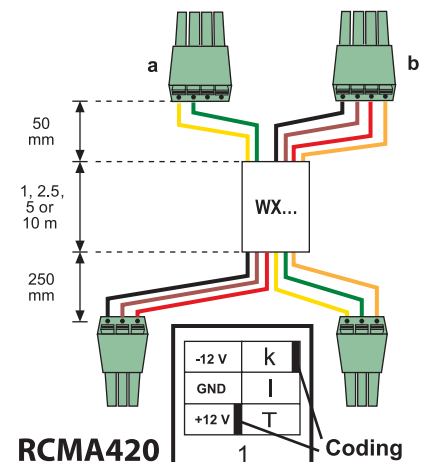
- Make sure that all live conductors are routed through the measuring current transformer.
- Do not route shielded conductors through the measuring current transformer.
- Never route a PE conductor through the measuring current transformer!

### Wiring diagram

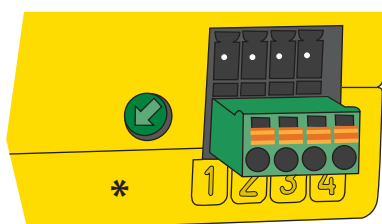


Connection to the RCMS460 / 490 residual current monitor using the WXS-... connecting cable.

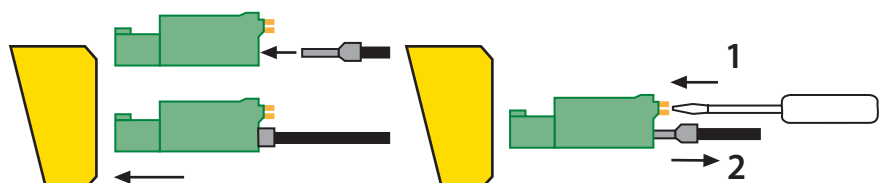
Colour coding for WXS... and WX...: k = yellow, I = green, -12 V = black, GND = brown, +12 V = red, Test (T) = orange

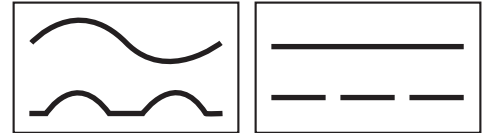


Connection to the RCMA420 residual current monitor using the WX-... connecting cable.



\* Selection switch measuring range





**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	10 mA...10 A
Rated continuous thermal residual current $I_{cth}$	40 A
Rated short-time thermal residual 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 / EMC**

EMC	IEC 62020: 2003-11
Operating temperature	- 25 °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	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	with snap-on mounting
Flammability class	UL94V-0
Standards	IEC 60044-1
Instruction leaflet	BP409012
Approval	UL under consideration, GOST

**Ordering information**

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

**Power supply unit**

Type	Supply voltage	Art. No.
AN420-2	DC 70...300 V / AC 42...460 Hz 70...276 V	B 9405 3100

**Ordering information**

**Connecting cables**

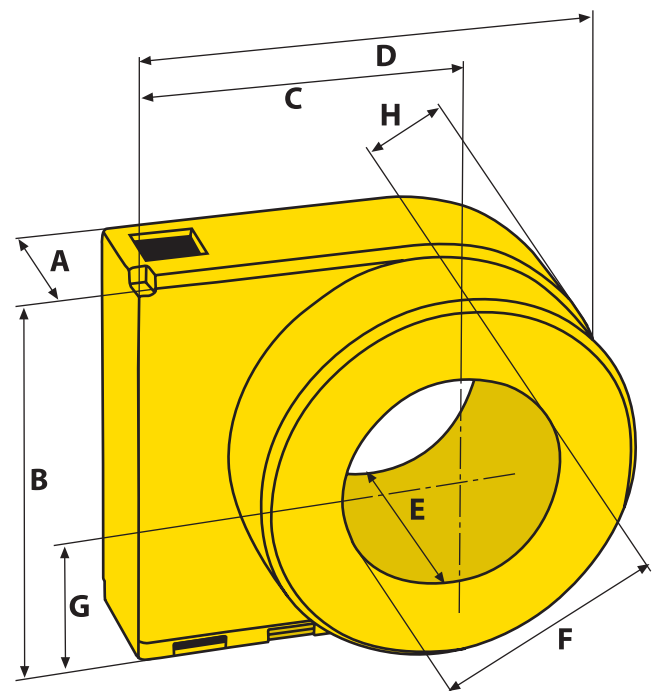
Type	Device	Length / m	Art. No.
WX-100	RCMA420	1	B 9808 0503
WX-250	RCMA420	2.5	B 9808 0504
WX-500	RCMA420	5	B 9808 0505
WX-1000	RCMA420	10	B 9808 0511
WXS-100	RCMS460 / 490	1	B 9808 0506
WXS-250	RCMS460 / 490	2.5	B 9808 0507
WXS-500	RCMS460 / 490	5	B 9808 0508
WXS-1000	RCMS460 / 490	10	B 9808 0509

Control cable LiYY flexible, 6 x AWG 20 (6 x 0.52 mm<sup>2</sup>), approved acc. to 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**



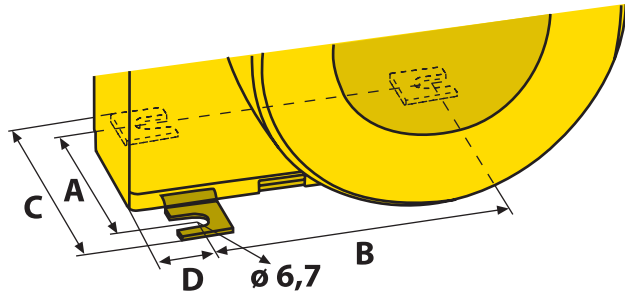
**Dimensions**

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

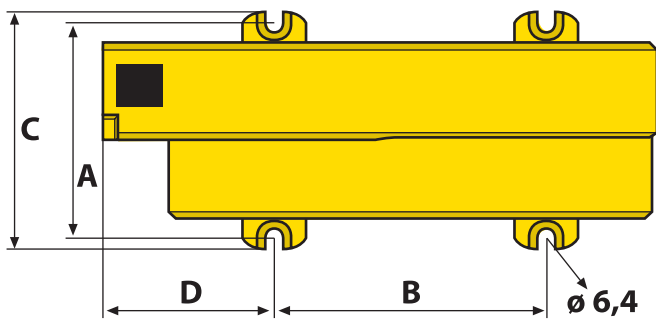
Dimensions in mm

**Mounting details**

Screw mounting with mounting brackets: W20AB, W35AB, W60AB



Screw mounting: W120AB, W210AB

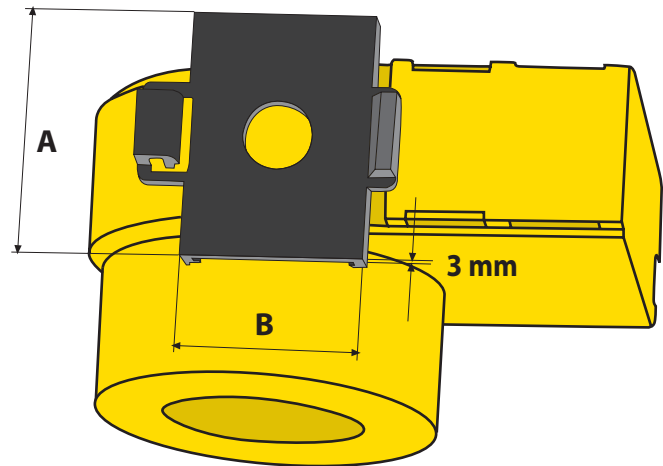
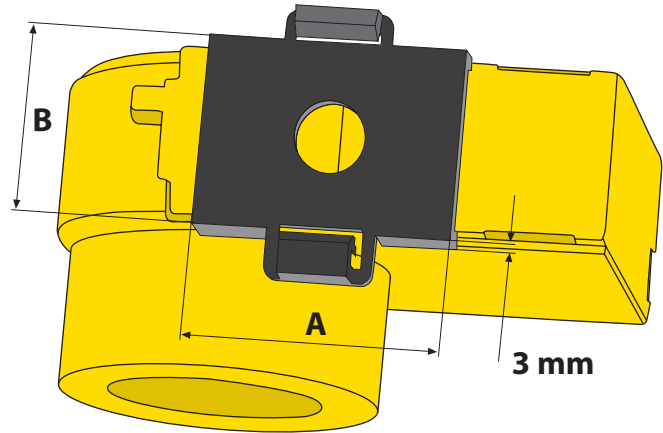


**Dimensions screw mounting**

Type	A	B	C	D
W20AB (fixing with two mounting brackets, diagonally)	47	29	63	20.35
W35AB (fixing with two mounting brackets, diagonally)	47	48.5	63	12.85
W60AB (fixing with max. three mounting brackets)	54	66	70	17
W120AB	51	103	61	65
W210AB	98	180	69	83

Dimensions in mm

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



**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	RCMS460 / 490
W20AB	×	×
W35AB	×	×
W60AB	×	×
W120AB	--	×
W210AB	--	×

4.5