

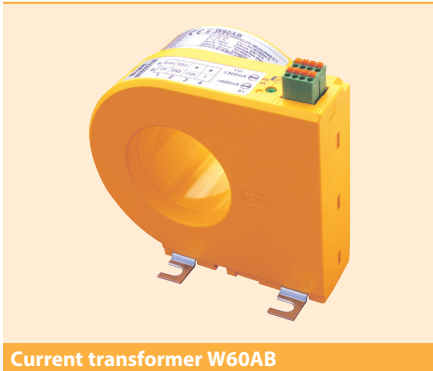
WAB Series

Current Transformers for AC/DC Systems

Used with Digital RCMA and RCMS Series Devices



WAB Series



Current transformer W60AB



Current transformer W35AB on DIN rail

Features

- W20AB...W60AB for RCMA420 digital ground fault monitor for grounded and high-resistance grounded AC/DC systems
- W20AB...W210AB for RCMS460 / RCMS490 digital, multi-channel ground fault monitors for grounded and high-resistance grounded AC/DC systems
- W20AB...W210AB for RCMA423 digital ground fault monitor for grounded and high-resistance grounded AC/DC systems

Approvals



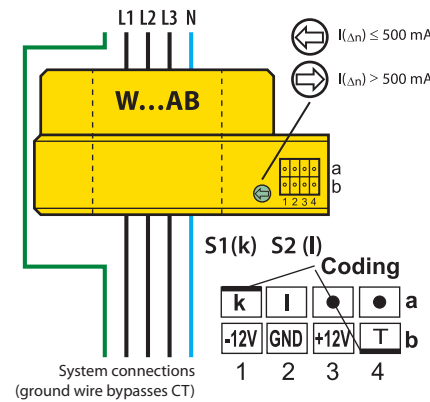
Description

The W...AB series of current transformers convert AC and DC currents into evaluable measurement signals. These special current transformers are designed to work with the BENDER RCMA420, RCMA423, and RCMS460 / 490 series of ground fault monitors. The combination can detect ground faults on AC, DC, and mixed AC/DC systems.

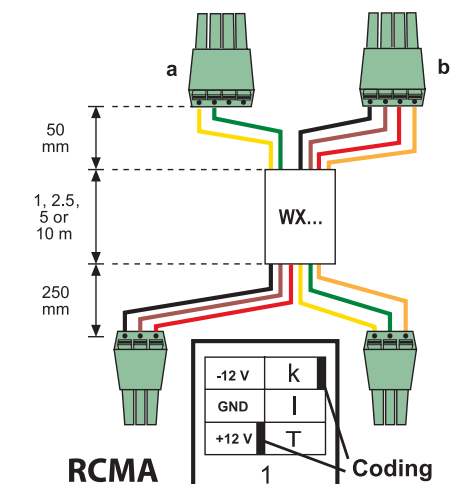
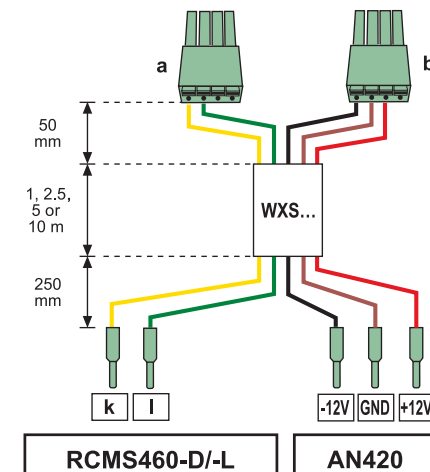
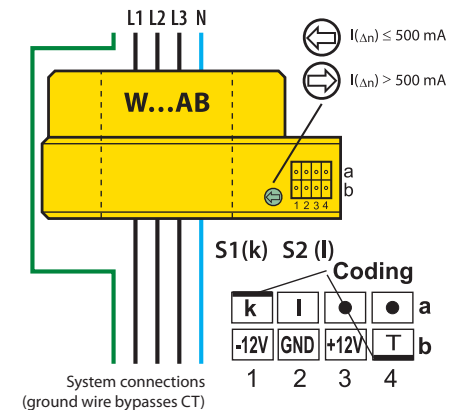
Installation

- All conductors shall pass through the current transformer, including the neutral if it is being used.
- The ground wire shall not be routed through the current transformer.
- If the current transformer is being used in combination with an RCMS460 or RCMS490, an AN420 external power supply is required. One AN420 can power up to six current transformers. This power supply is not required if the current transformer is being used with an RCMA420 or RCMA423 ground fault monitor.
- Special connection cables are required to connect the current transformer to the ground fault monitor. The WXS cable is required for connecting to an RCMS, while the WX cable is required for connecting to the RCMA420 / RCMA423.

Wiring: RCMS460 / 490 (WXS cable)

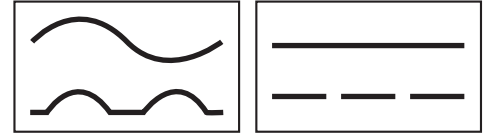


Wiring: RCMA420 / 423 (WX cable)



Color coding:

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 ground fault current	10 mA...10 A
Rated continuous thermal ground fault current I_{cth}	40 A
Rated short-time thermal ground fault 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	-13 °F...+131 °F (-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, NEMA 1
Degree of protection, terminals (IEC 60529)	IP20, NEMA 1
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, GOST

Ordering information

Type	Opening in inches (mm)	Ordering No.
W20AB	ø 0.79" (20)	B 9808 0008
W35AB	ø 1.38" (35)	B 9808 0016
W60AB	ø 2.36" (60)	B 9808 0026
W120AB	ø 4.72" (120)	B 9808 0041
W210AB	ø 8.27" (210)	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

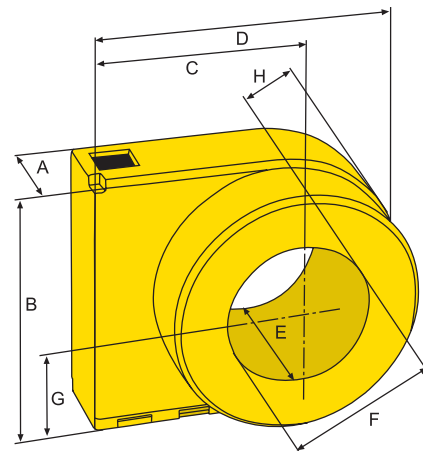
Connecting cables

Type	Device	Length in ft (m)	Art. No.
WX-100	RCMA420 / RCMA423	3.2' (1)	B 9808 0503
WX-250	RCMA420 / RCMA423	8.2' (2.5)	B 9808 0504
WX-500	RCMA420 / RCMA423	16.4' (5)	B 9808 0505
WX-1000	RCMA420 / RCMA423	32.8' (10)	B 9808 0511
WXS-100	RCMS460 / 490	3.2' (1)	B 5111 00028
WXS-250	RCMS460 / 490	8.2' (2.5)	B 5111 00029
WXS-500	RCMS460 / 490	16.4' (5)	B 5111 00030
WXS-1000	RCMS460 / 490	32.8' (10)	B 5111 00027

Accessories

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

Dimensions

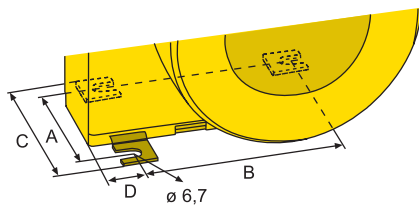


Dimensions in inches (mm)

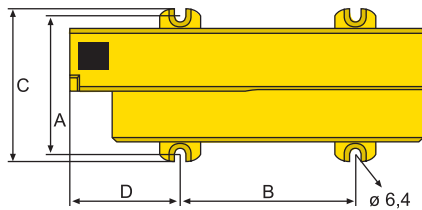
Type	A	B	C	D	E	F	G	H
W20AB	1.18" (30)	2.22" (56.3)	1.97" (50)	3" (76.4)	1.91" (48.5)	ø 0.79" (ø 20)	1.17" (29.8)	0.65" (16.4)
W35AB	1.18" (30)	3.12" (79.2)	2.44" (62)	3.92" (99.5)	2.17" (55)	ø 1.38" (ø 35)	1.64" (41.7)	0.79" (20)
W60AB	1.46" (37)	4.58" (116.4)	3.11" (79)	5.31" (135)	2.64" (67)	ø 2.36" (ø 60)	2.38" (60.4)	0.95" (24)
W120AB	1.46" (37)	7.54" (191.5)	4.59" (116.5)	8.26" (210)	2.64" (67)	ø 4.72" (ø 120)	3.86" (98)	1.32" (33.5)
W210AB	1.77" (45)	12" (304.5)	6.81" (173)	12.7" (323)	3.15" (80)	ø 8.27" (ø 210)	6.1" (154.5)	1.77" (45)

Mounting details

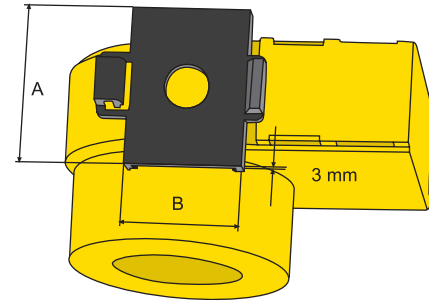
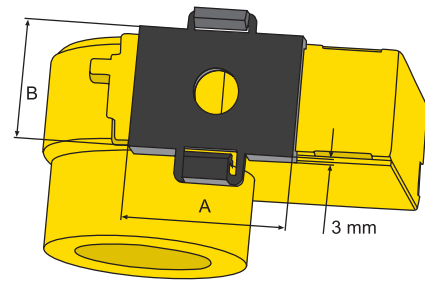
Screw mounting with mounting brackets: W20AB, W35AB, W60AB



Screw mounting: W120AB, W210AB



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



Dimensions: screw mounting				
Type	A	B	C	D
W20AB (fixing with two mounting brackets, diagonally)	1.91" (49)	1.24" (31.4)	2.56" (65)	0.73" (18.6)
W35AB (fixing with two mounting brackets, diagonally)	1.91" (49)	1.96" (49.8)	2.56" (65)	0.48" (12.1)
W60AB (fixing with max. three mounting brackets)	2.2" (56)	2.6" (66)	2.83" (72)	0.7" (17.7)
W120AB	3.19" (81)	4.05" (103)	3.57" (90.6)	2.56" (65)
W210AB	3.86" (98)	7.1" (180)	4.61" (117.1)	3.27" (83)

Dimensions in inches (mm)

Dimensions: snap-on mounting		
Type	A	B
W20AB	1.71" (43.5)	1.25" (32)
W35AB	1.71" (43.5)	1.25" (32)
W60AB	1.97" (50)	1.53" (39)

Dimensions in inches (mm)

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



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