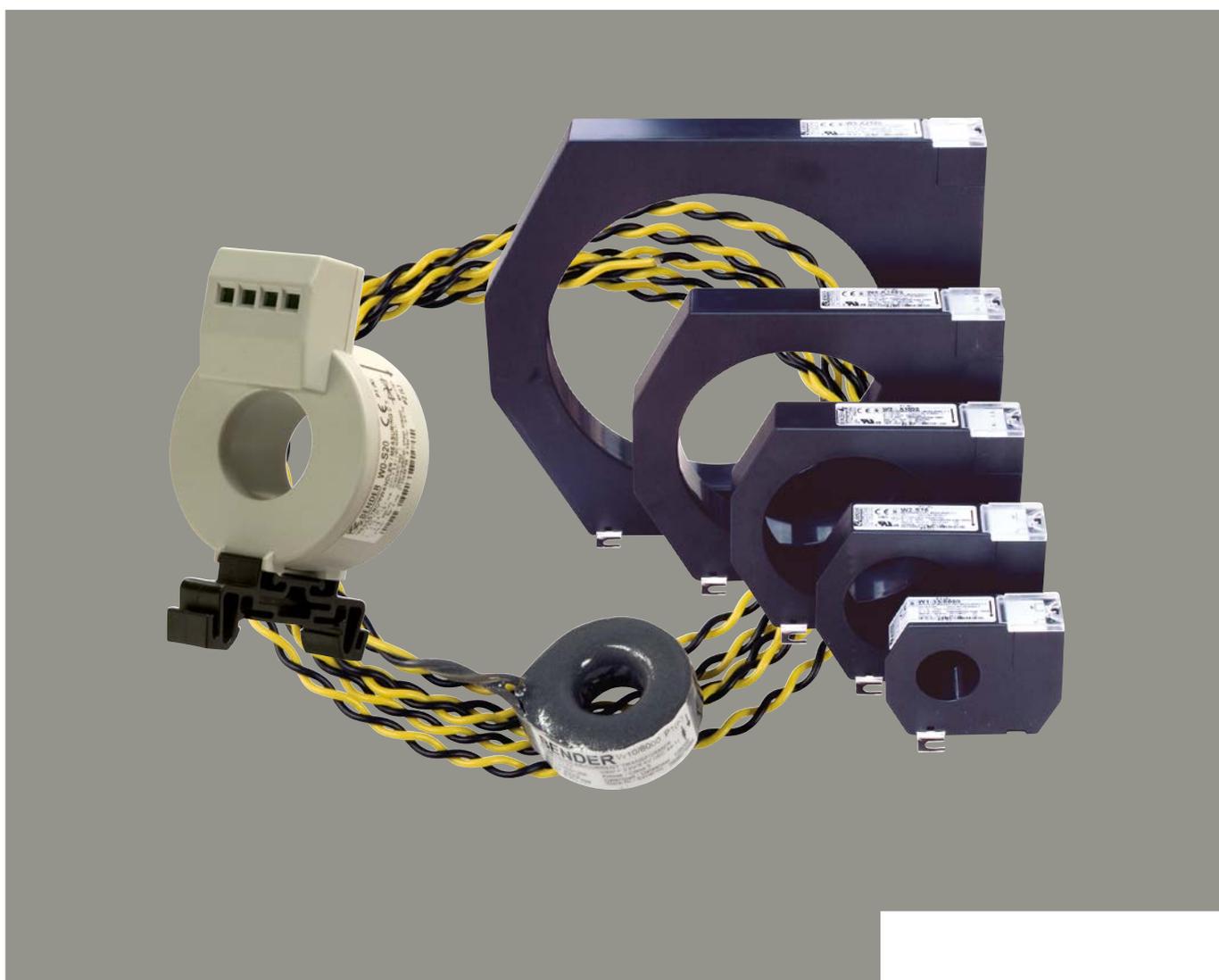

W0-S20...W5-S210 W10/600

Measuring current transformers



W0-S20...W5-S210 W10/600

Measuring current transformers



Measuring current transformer W10/600



Measuring current transformer W0-S20



Measuring current transformer W1-S35

Product description

The highly sensitive W0-S20...W5-S210 series measuring current transformers convert residual currents up to 100 A into evaluable RCM or EDS signals. The CTs are connected to the respective evaluator by two wires. Depending on the connecting lead used, the distance between the CT and the evaluator may be up to 40 m.

Care should be taken that all current-carrying conductors are passed through the CT and that these conductors are not shielded.

Never route a PE conductor through the measuring current transformer!

Typical applications

- For residual current monitors (RCM)
- For residual current monitoring systems (RCMS)
- For insulation fault locators with additional EDS in AC and DC systems

Standards

W0-S20...W5-S210 series measuring current transformers comply with the device standard:

- IEC 61869-1.

Approvals



EU Declaration of Conformity

The full text of the EU Declaration of Conformity is available via the QR Code:

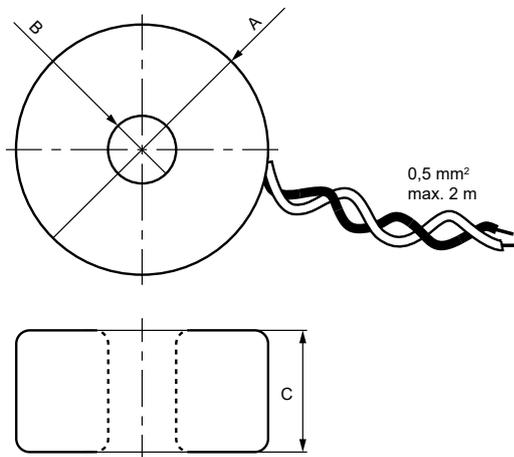


Ordering information

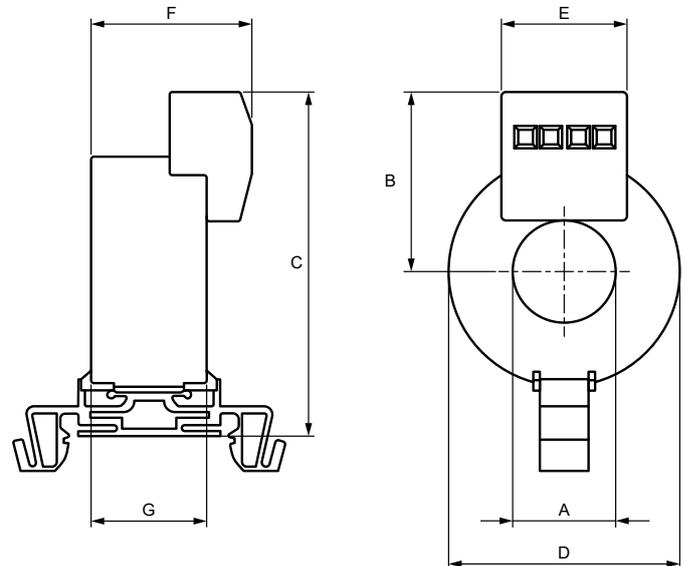
Type	Inside diameter	Approvals			Art. No.
		UL	EAC	LR	
W10/600	10 mm	–	–	■	B911761
W0-S20	20 mm	–	■	■	B911787
W1-S35	35 mm	■	■	■	B911731
W2-S70	70 mm	■	■	■	B911732
W3-S105	105 mm	■	■	■	B911733
W4-S140	140 mm	■	■	■	B911734
W5-S210	210 mm	■	■	■	B911735

Dimension diagrams

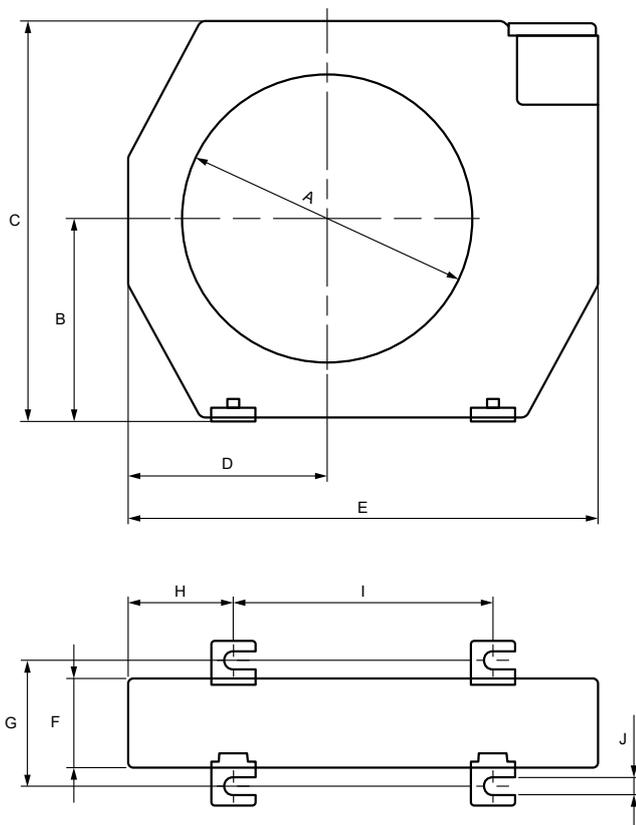
Type W10/600



Type W0-S20



Type W1-S35...W5-S210



Type	Dimensions (mm)										Weight
	A	B	C	D	E	F	G	H	I	J	
W10/600	∅ 37	∅ 10	18	-	-	-	-	-	-	-	85 g
W0-S20	∅ 20.5	36	69	∅ 46	25	32	23	-	-	-	70 g
W1-S35	∅ 35	44	79	35	100	32.5	46	26.5	48	6.5	250 g
W2-S70	∅ 70	58	110	52	130	32.5	46	32	66	6.5	380 g
W3-S105	∅ 105	74	146	72	170	32.5	46	38	94	6.5	700 g
W4-S140	∅ 140	99.5	197	97.5	220	32.5	46	48.5	123	6.5	1500 g
W5-S210	∅ 210	143	285	150	300	32.5	46	69	161	6.5	2500 g

Technical data

Insulation coordination acc. to IEC 60044-1

Highest system voltage for electrical equipment U_m	AC 720 V
Rated impulse withstand voltage U_{iso}	3 kV

Measuring circuit

Rated transformation ratio	600/1
Rated burden	180 Ω (18 Ω at 100 A)
Phase displacement	<4°
Rated primary current	≤10 A (100 A)
Rated primary current	≥10 mA
Nominal power	50 mVA
Rated frequency	15...400 Hz
Internal resistance	5...8 Ω
Secondary overvoltage protection	with suppressor diode P6KE6V8CP
Accuracy class	3
Rated continuous thermal current	100 A
Rated short-time thermal current	14 kA 1 s
Rated dynamic current	35 kA 30 ms

Environment

Shock resistance IEC 60068-2-27 (device in operation)	15 g/11 ms
Bumping IEC 60068-2-29 (transport)	40 g/6 ms
Vibration resistance IEC 60068-2-6 (device in operation)	
W1-S35...W3-S105	1 g/10...150 Hz
W4-S140, W5-S210	1 g/10...150 Hz/0.075 mm
Vibration resistance IEC 60068-2-6 (device not in operation)	2 g/10...150 Hz
Ambient temperature (during operation/during storage)	-10...+50 °C/-40...+70 °C
Climatic class acc. to DIN IEC 60721-3-3	3K22

Connection

Connection	screw-type terminals
Connection	
rigid/flexible	0.2.../4/0.2...2.5 mm ²
flexible with ferrules with/without plastic sleeve	0.25...2.5 mm ²
Conductor sizes (AWG)	24...12
Connection to the evaluator	
single wire ≥ 0.75 mm ²	0...1 m
single wire, twisted ≥ 0.75 mm ²	0...10 m
shielded cable ≥ 0.6 mm ²	0...40 m
Shielded cable (shield connected to PE on one side)	recommended cable J-Y(St)Y min. 2 x 0.6

Other

Operating mode	continuous operation
Mounting	any position
Degree of protection, internal components (DIN EN 60529)	IP40
Degree of protection, terminals (DIN EN 60529)	IP20
Screw mounting	M5
Flammability class	UL94 V-0
Documentation number	D00142 (W(0-5)-S) D00143 (W10)

Installation instructions

- Do not pass shielded cables through the measuring current transformer.
- As a general principle, the PE conductor and low-resistance conductor loops must not be passed through the measuring current transformer!

It is important that the leads are passed through the measuring current transformer in the right direction	
Never pass a PE conductor through the measuring current transformer	
Make sure that all current-carrying leads are passed through the measuring current transformer	
The primary conductors may only be bent from the specified minimum distance. The minimum bending radius specified by the manufacturers must be observed. * Distance to 90° angle: 2x external diameter of the current transformer	
The leads must be aligned with the centre of the measuring current transformer	



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 01.2024 unless otherwise indicated.