Smart Energy & Power Quality Solutions

THE JANITZA CURRENT TRANSFORMER RANGE

Janitza®

THE LINK BETWEEN HEAVY CURRENT AND MEASUREMENT TECHNOLOGY

The right current transformer for every application

Anyone wanting to record energy consumption, must measure currents. This is done by using a current transformer to measure the magnetic field created by the current. In principle, the current transformer is similar to a power transformer. The primary circuit is formed by the line to be measured, the connection to the measurement device forms the secondary circuit. As a result, on the one hand there is a galvanic separation between the measurement device and the current circuit to be measured and on the other hand, the size of the current can be transformed down by a defined ratio to a size suitable for the measurement device:

For example, a high-power 320 Amp line can be reduced by means of a 500:5 transformer to more convenient 3.2 Amps. At the same time, the measurement equipment is protected by the so-called saturation effect in the event of a fault, e.g. with a short-circuit: This phenomenon means that the magnetisation of a material through a magnetic field only rises until it reaches saturation point. The current in the secondary circuit is thus automatically limited through the physical characteristics of the current transformer.

The appropriate combination of measurement device and transformer is critical for the quality and accuracy of a measurement: As with measurement devices, there are permissible nominal currents and accuracy classes with transformers too, the knowledge of which is essential for correct measurement.

Current transformers; Safe – robust – precise

The ideal expansion for energy measurement devices

Janitza electronics® has a broad spectrum of different current transformers, ranging from moulded case current transformers, summation transformers to differential current transformers and cable split core current transformers. Low-power transformers with mA outputs and Rogowski coils including converter with 1 A output complete the product range.

Differential current transformers

Split-core current transformers

Moulded case current transformers

Cable split core current transformers

Flexible and easy to install

DIN rail current transformers

Summation current transformers

Rogowski coils

Three-phase current transformers

Current transformers for every area of application

The ideal expansion for energy measurement devices

Smart Energy & Power Quality Solutions

Janitza®

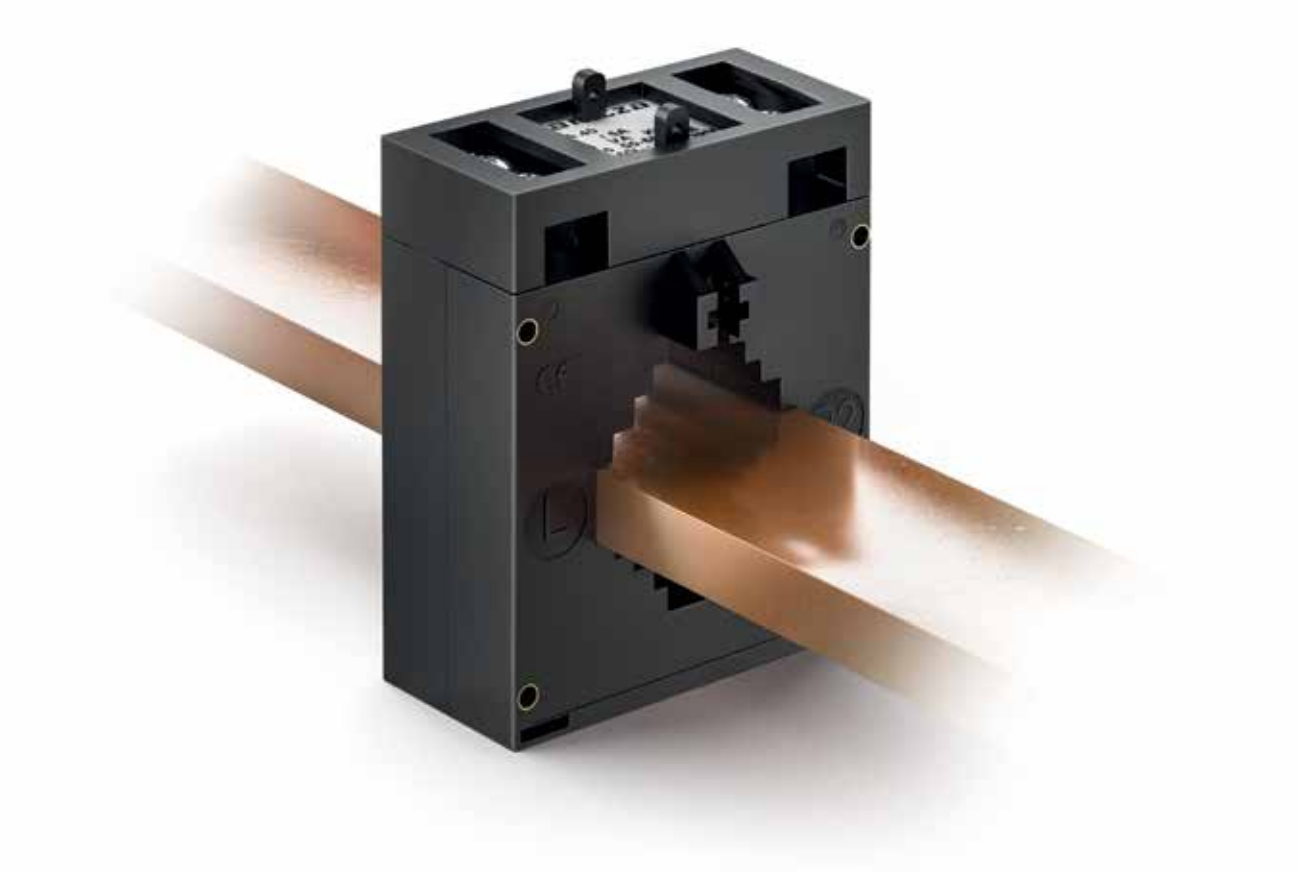
Features and advantages of Janitza current transformers

Advantages at a glance

- Ideally suited for energy and power quality measurement devices
- High measurement accuracy up to class 0.2
- Measurement of harmonics up to the 50th. harmonic
- Long service life
- High overload capability
- Unbreakable plastic housing
- Variable, space-saving and particularly rapid installation
- Ideal for use in very compact installation spaces
- High level of safety thanks to galvanic separation between measurement circuit and measurement device
- Large selection for different parameters
- Low power losses even with high primary currents
- Safe connection technology
- High interference resistance to external magnetic fields

Moulded case current transformer

Class 1 and 0.5 to / 5 A



Moulded case current transformers are used if high currents are to be recorded and further processed. The line to be measured (conductor rail or wire) is fed through the window opening and forms the primary circuit for the plug-on current transformer. Moulded case current transformers are predominantly used for mounting on conductor rails. Through additional potting it is possible to achieve droplet-tightness, as well as greater shock and vibration resistance with mechanical loading (IEC 68). This is the most common and cost-effective form of current transformer. However, the primary conductor must be disconnected during installation. This form of transformer is therefore most commonly used in new system installations.

Versatility & increased safety

Main features

Increased safety
- Both halves of the housing overlap rather than butting up against one another
- Burst-resistant plastic housing made from polyamide
- Non-combustible per UL 94 VO and self-extinguishing

Protective caps for primary rail fastening screws
- Screw-in pins for the primary rail terminals can be insulated by means of protective caps, available as an option
- Safeguard to prevent accidental contact

Secondary connection feed
- Feeding of the secondary connection to the connection terminals through the rectangular opening in the front and rear sides
- During installation, e.g. behind the safety strip, the secondary connection is implemented by means of cable lugs through the side slots

Expanded secondary terminal covering
- In addition to the normal terminal covering, extra protective hoods are available
- Locking of the front and rear feed to the secondary terminals

Current transformer 50 / 5 A, Imax = 50 A

Equivalent to a transformer 100 / 5 A, Imax = 50 A

General mechanical properties

- Nominal frequency 50 – 60 Hz
- Insulation class E (other classes on request)
- Thermal rated short-term current Ith = 60 x IN/1s
- Rated surge current Idyn = 2.5 x Ith, min., however 100 kA with all plug-on current transformers
- Highest voltage for operating equipment Um = 0.72 kV
- Rated insulation level (test voltage) 4 kV / 1 min (per EN 61869-2)
- Over-current limit factor FS5 or FS10
- Harmonics current up to 50th harmonic

Moulded case current transformer for billing purposes

Moulded case current transformer for billing purposes

The applicable regulations for kWh measurement devices can be fulfilled with these tariff current transformers.

All tariff current transformers are equipped with an integrated lockable terminal cover, produced from polycarbonate. The current transformers are supplied with a fastening tool, for mounting on rails or cables. The transformers can be optionally ordered with clips, which enable mounting on a DIN rail.

- Transformation ratio: 50/5 A to 2500/5 A
- Rated power: 1.25 to 5 VA
- Precision class: 0.5 / 0.2S
- Round conductor: Ø 23 to 85 mm
- Width: 60 to 129 mm
- Insulation class E

Summation current transformer

If the current measurement is carried out with two or more current transformers (e.g. two transformers) and if the total consumption is to be calculated, the secondary signals from the individual current transformers can be summed with the help of summation current transformers. This enables the total consumption to be recorded with just one measurement instrument. The output of the summation current transformer is a standardised measurement signal. Alongside the addition of the input currents, the total is also divided by the number of summands (number of inputs).

Summation current transformer for plug-on and split transformers

- Summation of the secondary currents from multiple main transformers
- Access to the measurement possible for a measurement instrument
- There is a standardised measurement signal available at the output
- Distinction for similar and dissimilar main transformers
- Burst-resistant plastic housing made from ABS, IP40
- Rated power: 10 to 15 VA
- Precision class: 0.5 and 1
- Secondary current: 1 A and 5 A
- Maximum conductor cross-section: 2.5 Ø solid, 1.5 Ø flexible
- Dimensions: 115 x 45 x 73 mm (W x H x D)

Summation current transformer for core current transformers

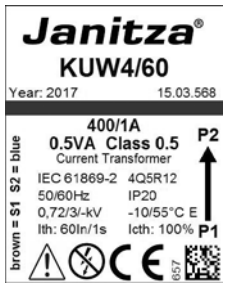
- High measurement accuracy
- Simple spring-clamp technology
- Perfect interaction with the KUW series core current transformers
- Rated power: 0.2 VA
- Precision class: 1
- Secondary current: 1 A
- Dimensions: 80 x 30 x 60 mm and 80 x 55 x 60 mm (H x W x D)

Cable split core

for retrofitting existing systems

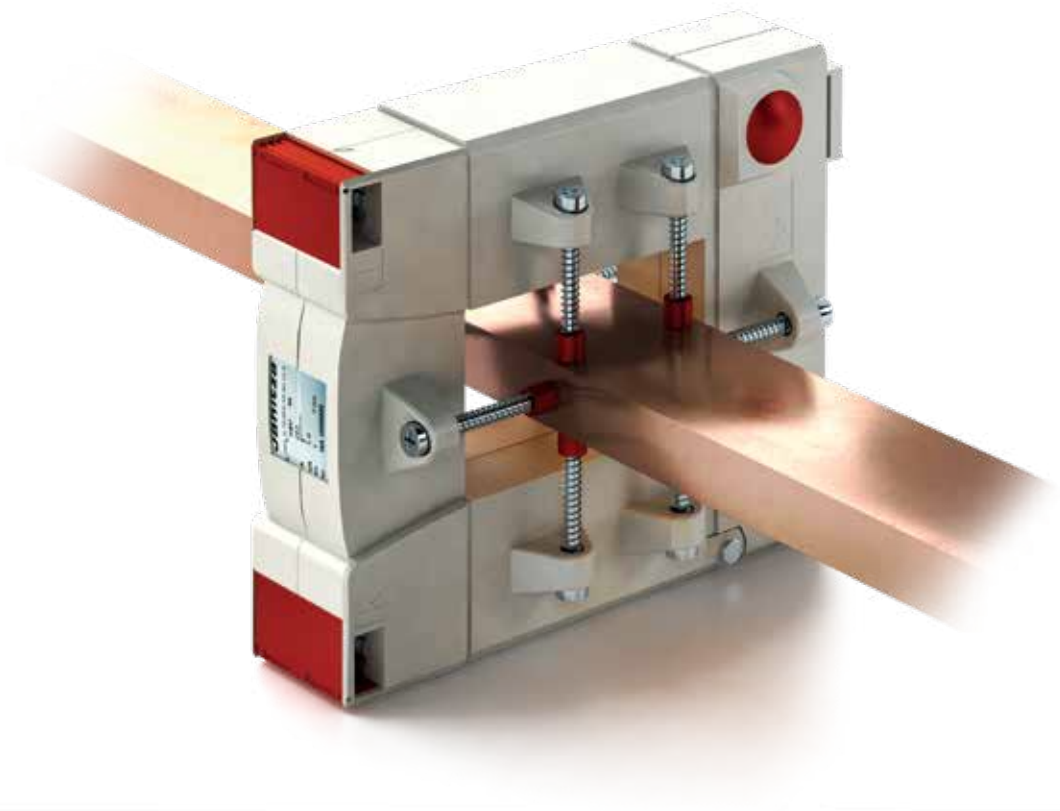
Compact, splitting current transformers for retrofitting

- Ideal for retrofitting as the primary current circuit need not be disconnected
- Ideally suited for energy and power quality measurement devices
- Ideal for use in very compact installation spaces
- Especially fast installation
- Including colour-coded secondary lines
- Fastening of the transformer with the two UV-resistant cable ties provided
- Transformation ratio: 60/1 A to 1000/5 A
- Rated power: 0.2 to 0.5 VA
- Precision class: 0.5, 1 and 3
- Round conductor: Ø 18 / 28 / 42 or 42 x 84 mm
- Dimensions: 48 x 50.4 to 66.2 x 139 mm
- Current transformer per IEC 61869-2


Janitza®
KUW4/60
Year: 2017
15.03.568
400/1A
0.5VA Class 0.5
Current Transformer
IEC 61869-2 4Q5R12
50/60Hz IP20
0,72/3/-kV -10/55°C E
Ith: 60In/1s Icth: 100%
P2
P1
brown = S1 S2 = blue

Clear rating plate
with technical details
Double insulated
color coded leads
Special lugs for cable
mounting with tyraps
Suitable for insulated
conductor
Split-core
Build in spring for
continuous pressure
on the cores
Easy closing by
click system
Easy mountable
in narrow situations
by removable hinge

Cable split core current transformer



Compact, splitting and safe

- Core can be split at the push of a button
- Ideal for retrospective installation in existing systems
- Simple and secure attachment - current transformer audibly latches
- Can be securely fastened in place through numerous clamping screws
- Transformation ratio: 250/1.5 A to 1250/7,5 A
- Rated power: 1.5 to 5 VA
- Precision class: 0.5 and 1
- Conductor feed-through: 55 x 85 or 85 x 125 mm
- Dimensions: 125 x 158 and 155 x 198 mm
- Applied technical standards:
  DIN EN 61869, part 1 + 2; IEC 61010-2;
  Low voltage directive 2014/35/EU

Three-phase current transformer

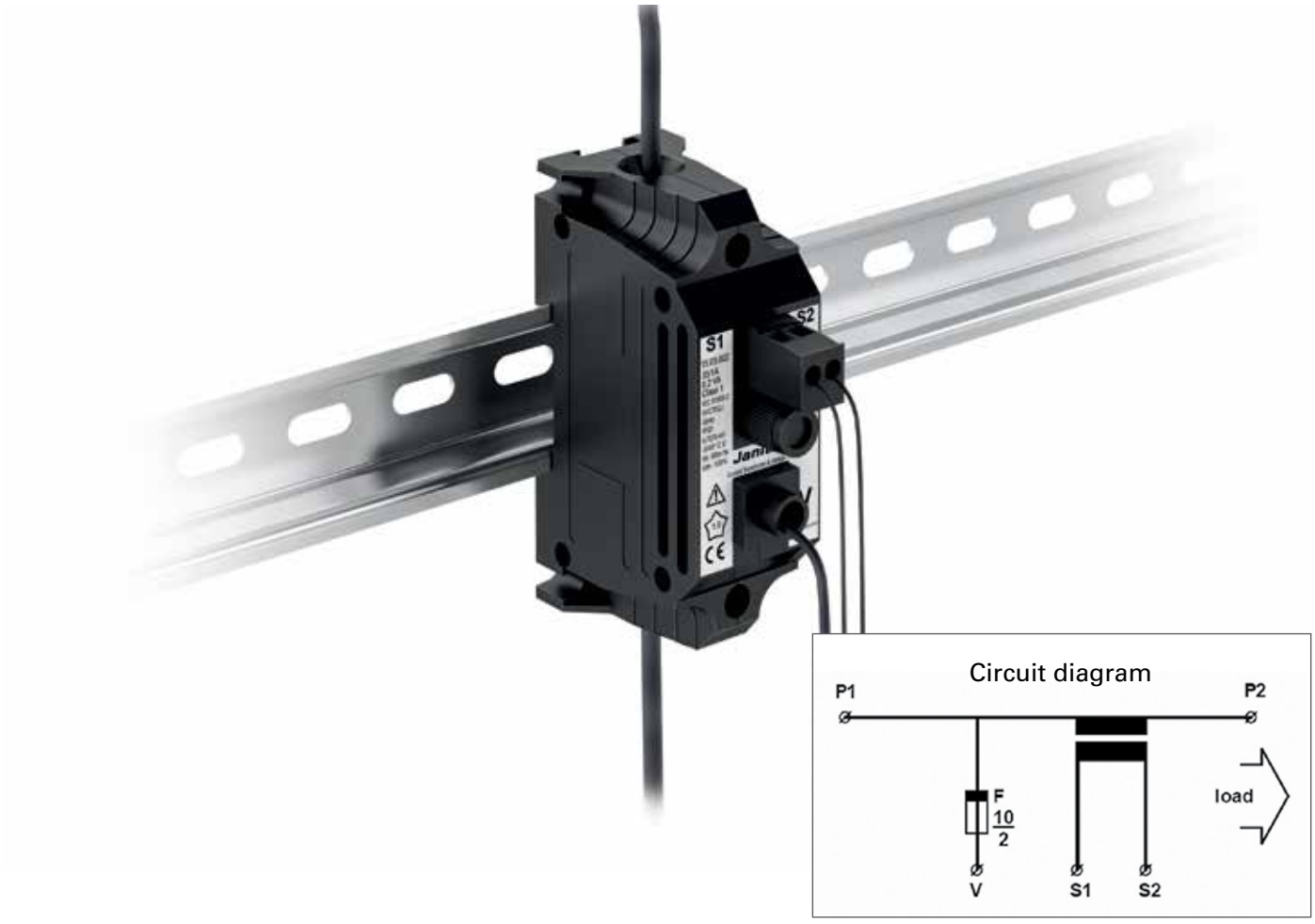
Cost-effective, space-saving and simple to install

- Simple DIN rail mounting
- Low costs due to reduced wiring work
- Lower spatial requirements thanks to compact construction
- For connection to current measuring systems with 5 A input

- Transformation ratio: 50/5 A to 150/5 A
- Rated power: 1 to 2.5 VA
- Precision class: 0.5 and 1
- Round conductor: Ø 13.5 mm per phase
- Dimensions: 105 x 90 x 54 mm
- Applied technical standards:
  DIN EN 61869, part 1 + 2; IEC 61010-2;
  Low voltage directive 2014/35/EU

DIN rail current transformer

with voltage tap-off & back-up fuse



Space-saving and time-saving

- Space-saving and easily installed rail clamps with integrated current transformer and fused voltage tap-off
- Precise current and voltage measurement
- High short-circuit resistance 70 kA to 400 V / 50 Hz
- Prevention of connection errors
- High degree of reliability due to fewer connections
- Specially developed for energy measurement up to 64 A
- Transformation ratio: 35/1 A and 64/1 A
- Rated power: 0.2 VA
- Precision class: 0.5 and 1
- Round conductor: 1.5 – 16 mm^2
- Dimensions: 72 x 32 x 96 mm
- KEMA-KEUR certified

Compact current transformer

Suitable for operating and residual current

- Connection of multiple transformers from this series possible (Lego-transformers)
- Space-saving installation directly above circuit breakers
- Installation also possible in the tightest of spaces
- Particularly well suited to digital measurement devices
- Primary window can be used for insulated cable Ø 7.5 mm
- For use on a 3-phase disconnector with a phase spacing of 17.5 mm
- DIN rail mounting (35 mm) via rail clamps (optional)
- Transformation ratio: 35/1 A, 64/1 A, 700/1 A (RCM)
- Rated power: 0.2 VA
- Precision class: 1
- Round conductor: 7.5 mm
- Dimensions: 46 x 27 x 23 mm
- Current transformer per IEC 61869-2

Rogowski coils

and Measurement transducer

The operation of the Rogowski coils as per the technical data mentioned herein can only be assured in combination with Janitza measuring transducer “RogoTrans”.

Flexible and precise Rogowski current transformer

- Frequency bandwidth of the Rogowski coil 50/60 Hz, up to 700 kHz without load (no-load operation)
- Accuracy per class 0.5, in accordance with IEC 61869
- Operating temperature: -40°C to +80°C
- Rated insulation voltage 1 kV CAT III
- Rogowski coil from 10 to 10000 ARMS – in combination with Janitza measurement transducer RogoTrans up to 4000 ARMS
- CE-certified (2014/30/EU)and tested in accordance with the standard IEC 61010-1
- IP67, unique AC current transformer with separating core

Measurement transducer for Rogowski current transformer

- Measurement transducer for Rogowski current transformer (item no. 15.03.609, 15.03.610, 15.03.611)
- Standardised output signal 0 to 1 A
- For measuring alternating currents
- Metering range up to 4000 A
- Voltage supply 24 V DC
- Compact construction in a plastic housing
- Assembly on DIN rail possible

Split-core current transformer

for the UMG 20CM

Record the operating current with the UMG 20CM

- Compact, divisible, split-core current transformer
- Separable current transformer up to max. 63 A for retrofitting in existing systems
- Specially designed for use with the UMG 20CM
- Transformation ratio: 3000/1
- Precision class: 1
- Round conductor: Ø 10 mm
- Dimensions: 41.4 x 32 x 32.3 mm
- Current transformer per IEC 61869-2

Recording the operating and residual currents with the UMG 20CM

- Compact, divisible, split-core current transformer
- Suitable for residual current monitoring
- High measurement accuracy
- Simple installation thanks to clip technology
- Specially designed for use with the UMG 20CM
- Transformation ratio: 700/1
- Precision class: 1
- Round conductor: Ø 8 mm
- Dimensions: 35 x 35 x 16 mm
- UL and EN 61010-1 certified

Split-core current transformer

for the UMG 20CM

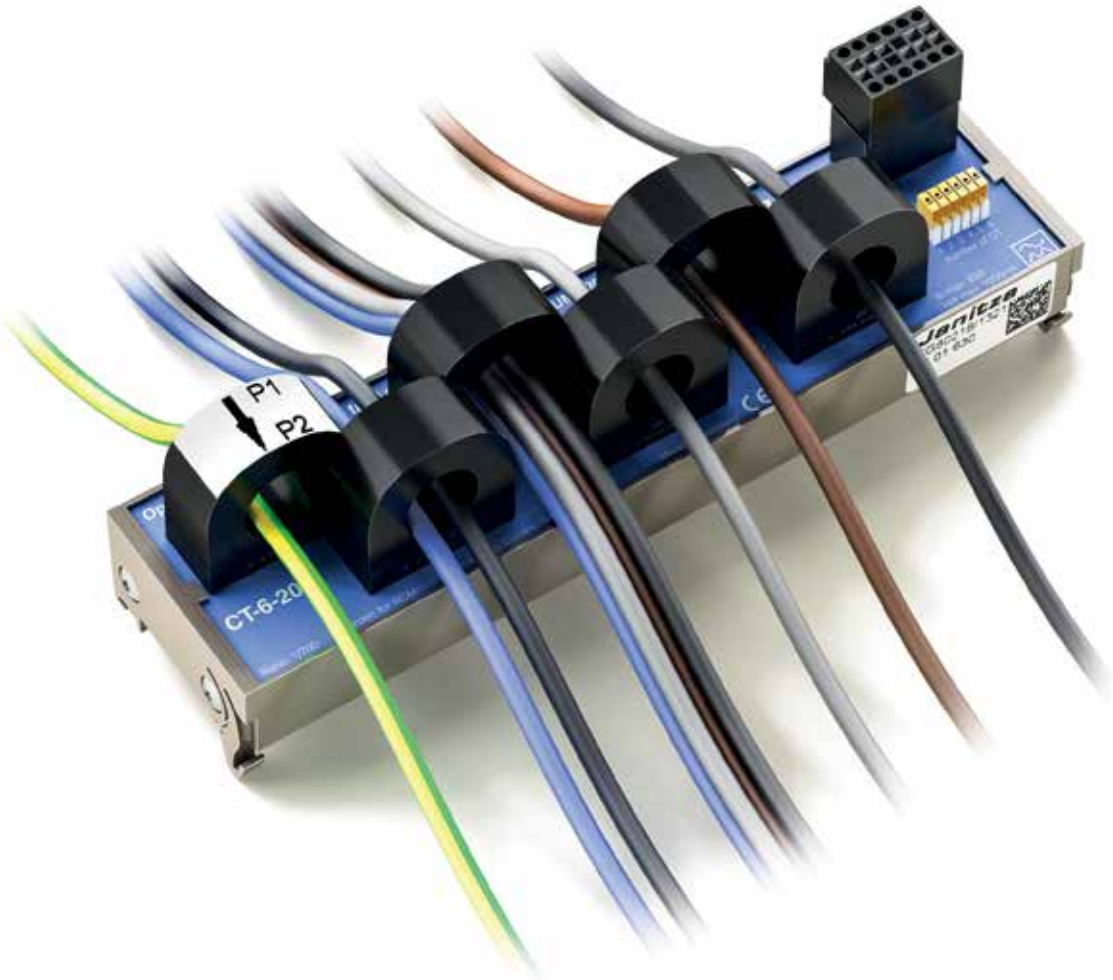
Rapid installation – reliable measurement

- Snap-in technology makes installation in existing equipment easier
- High number of secondary windings
- Secure latching in place, small size, low weight
- Suitable for the UMG 20CM

- Transformation ratio: 3000/1 to 6000/1
- Max. operating current: 100 A to 600 A
- Precision class: 0.5 and 1
- Round conductor: 16 to 36 mm
- Dimensions: 55 x 29.5 x 31 mm to 91.4 x 57.1 x 40.2 mm
- Current transformer per IEC 60044-1

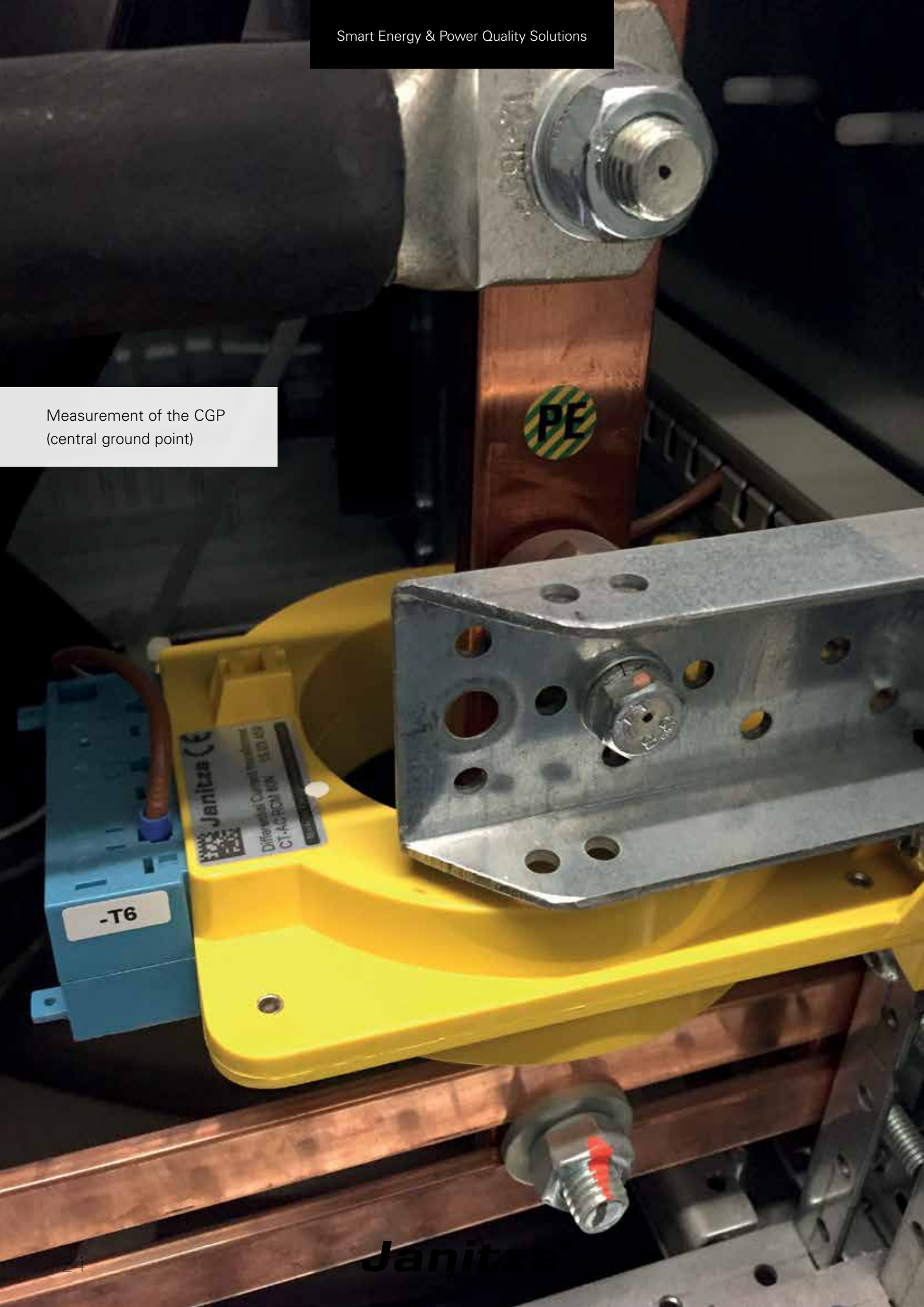
6-fold DIN rail

current transformer for the UMG 20CM



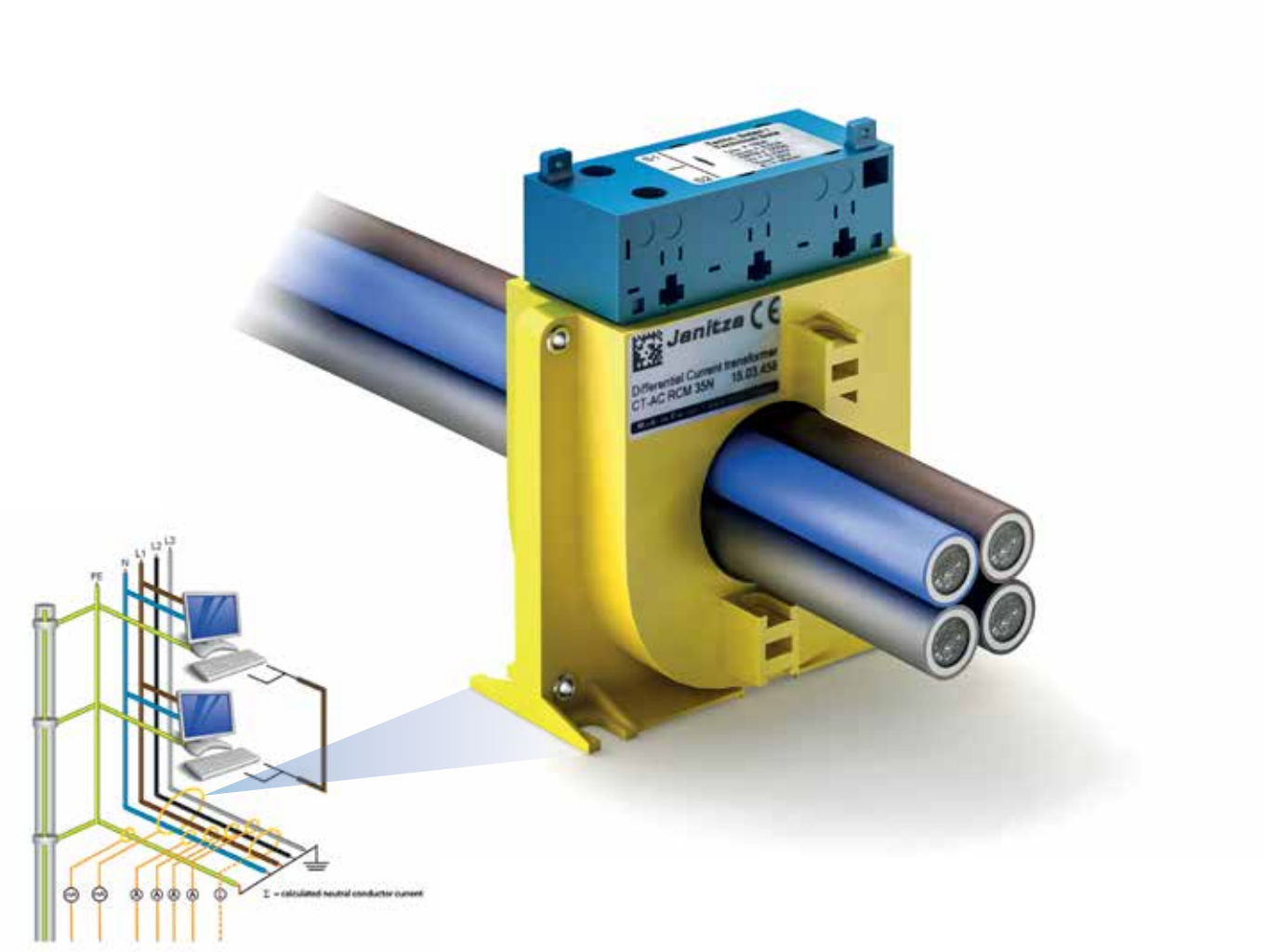
Monitor, assess and treat

- Current transformer for operating and residual current suitable for the measurement device UMG 20CM
- Residual current acquisition with integrated current transformers (residual currents per IEC 60755 type A)
- 6 measurement channels, individually adjustable for operating current or residual current
- Compact construction, DIN rail mounting
- Parallel acquisition and processing of measured values
- Use in distribution outputs for consumers and systems



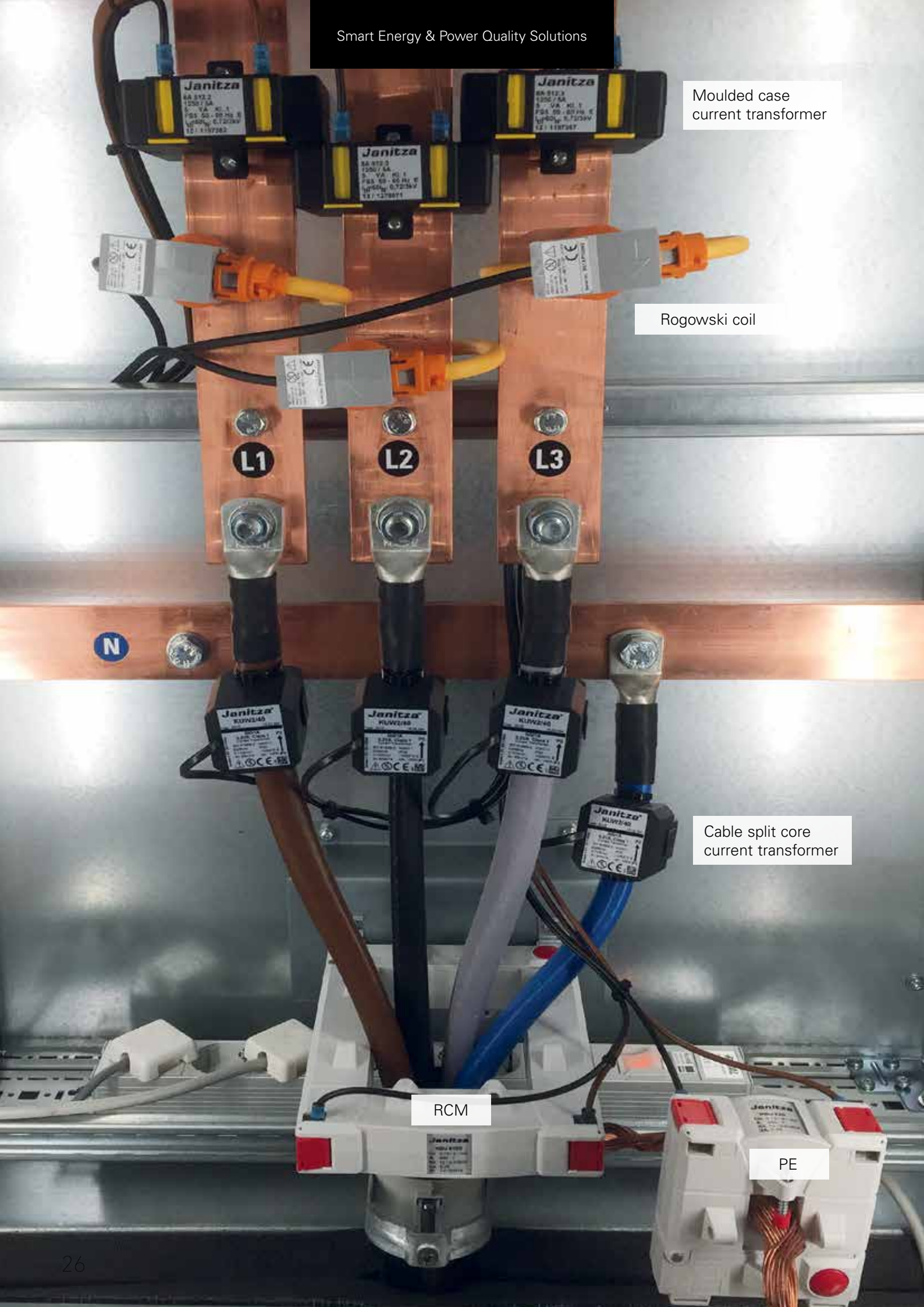
Measurement of the CGP
(central ground point)

Feedthrough residual current transformer

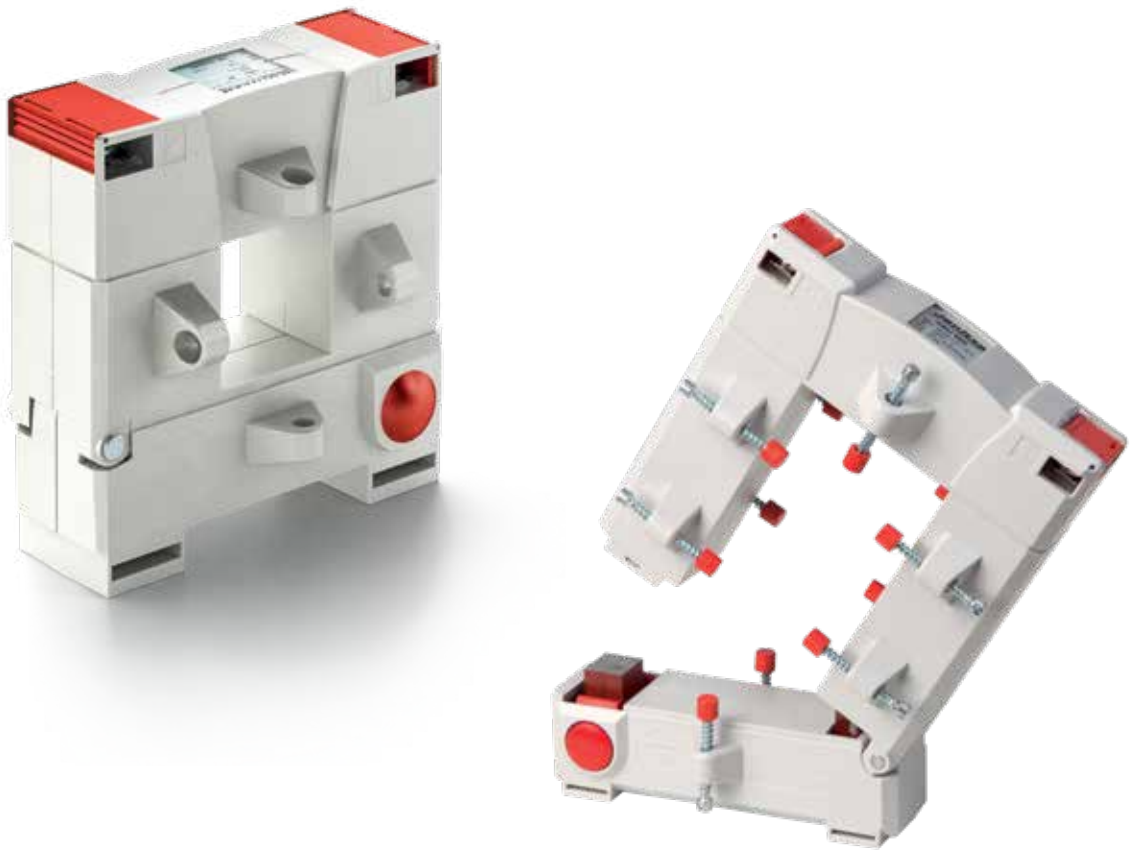


Detection of very small currents

- Compact construction
- Makes it possible, in conjunction with the UMG measurement device, to determine the residual current to earth of machines or systems
- Suitable for the UMG 96RM-E, UMG 96RM-PN, UMG 509, UMG 512 and UMG 20CM
- Transformation ratio: 700/1
- Internal diameter: Ø 35 mm ... 210 mm
- Dimensions: 92 x 113 x 56 to 290 x 323 x 64 mm
- Current transformer per IEC 60664-1
- Max. primary residual current: 21000 mA


Moulded case current transformer
Rogowski coil
Cable split core current transformer
RCM
PE
L1
L2
L3
N

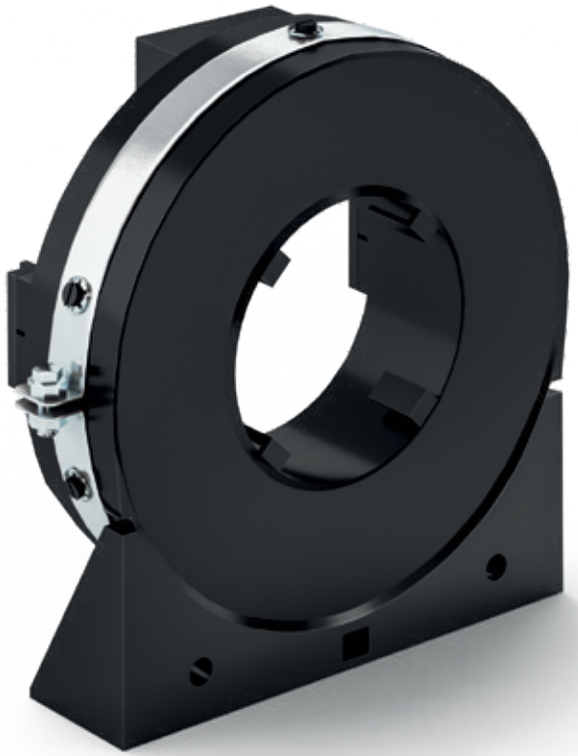
Split-core residual current transformer



Handy and compact

- Simple and economical installation
- Practical locking system: Separating and detachment of primary cores not required
- Available in various different sizes
- No interruption of operations
- Suitable for UMG 96RM-E, UMG 20CM, UMG 509 and UMG 512
- Transformation ratio: 600/1
- Max. primary residual current: 18000 mA
- Conductor feed-through: 20 x 30 to 80 x 120 mm (W x H)
- Dimensions: 93 x 106 x 58 to 155 x 198 x 58 mm (W x H x D)
- Applied technical standards:
  DIN EN 61869, part 1 + 2; IEC 61010-2;
  Low voltage directive 2014/35/EU

Split-core residual current transformer



Easy to handle and can be retrofitted

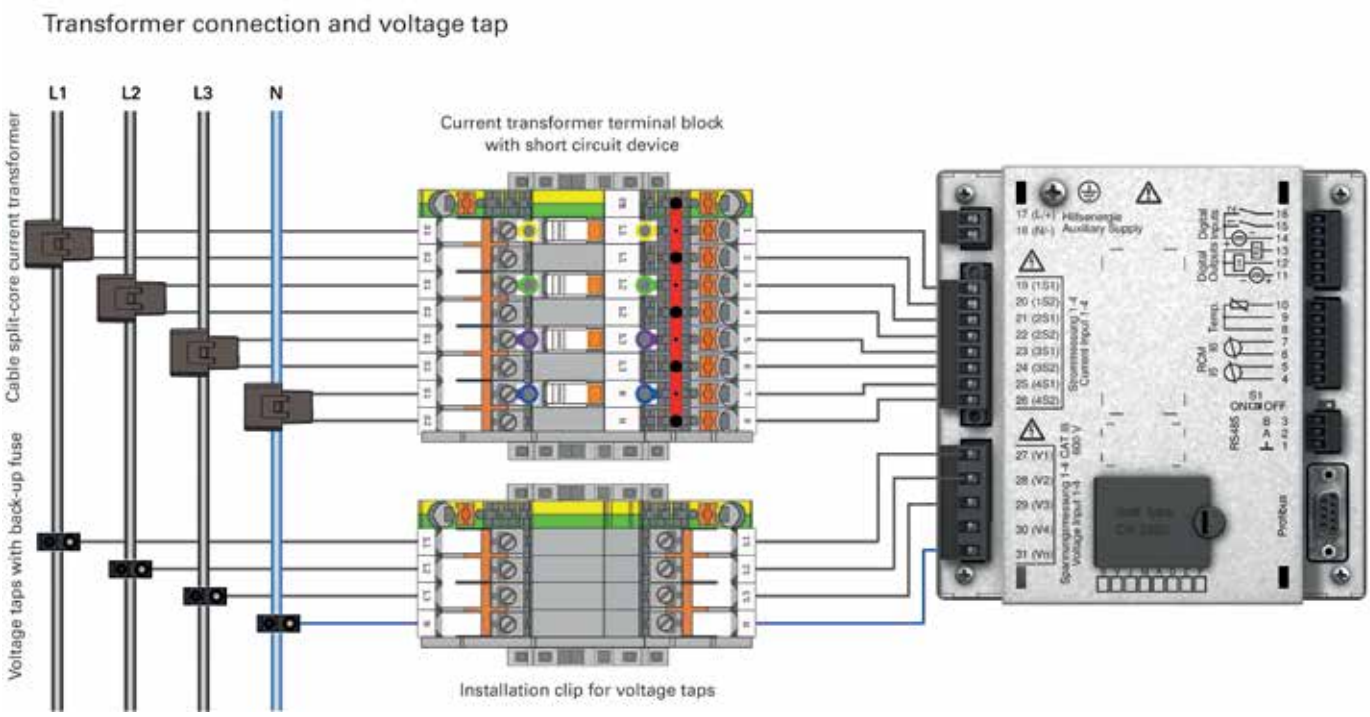
- Makes it possible, in conjunction with the UMG measurement device, to determine the residual current to earth of machines or systems (e.g. insulation faults)
- Compact construction
- Detection of very small currents
- Suitable for the UMG 96RM-E, UMG 96RM-PN, UMG 509, UMG 512 and UMG 20CM
- Transformation ratio: 700/1
- Round conductor: Ø 110 to 310 mm
- Dimensions: 235 x 219 mm to 400 x 416 mm (W x H)

Differential current transformer type B+

for the UMG 96RM-E

Ever-vigilant – intelligent current transformer

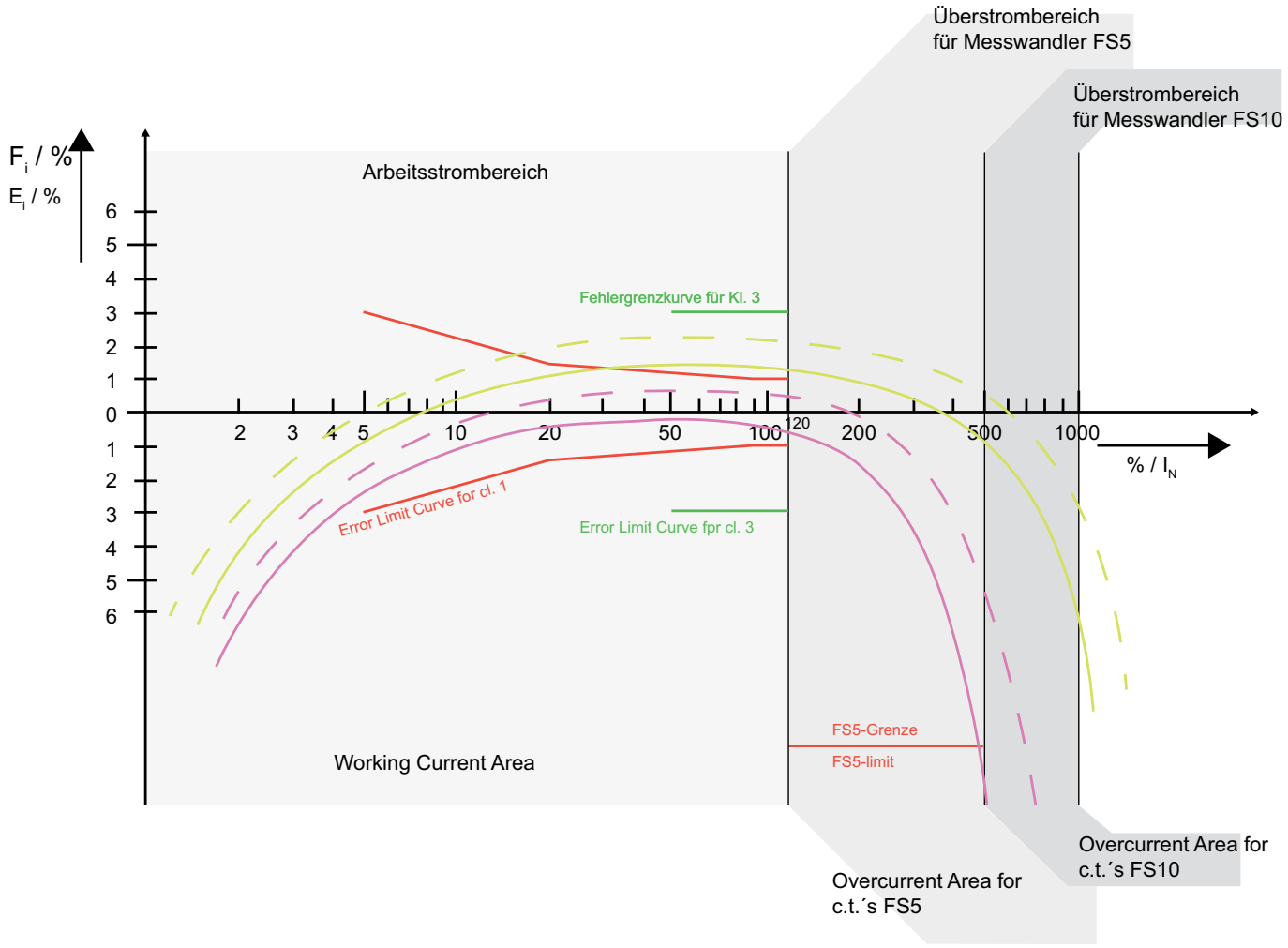
- Recording of DC type B+ residual currents (up to 300 mA)
- Pre-alarm in the event of faults
- Continuous monitoring of residual currents
- Reduction of the DGUV V3 (substitute for insulation measurement in stationary electrical systems)
- Simple implementation of fire and system protection
- Decentralised direct shutdown of system parts
- Simple installation and commissioning
- Autonomous relay output
- Local test button
- Standard interface 4–20 mA
- Internal diameter: Ø 35 and 70 mm
- Dimensions: 106 x 113 and 141 x 143 (W x H)
- 24 V DC supply voltage
- Current sensor per EN 62020, DIN IEC 381 part 1: 1989-11



Example measurement system

Janitza®

Current transformer fault curve



Beispiel eines Strom-Messwandlers der Kl. 1 FS5 bei 1/1 Bürde
Example for a measuring c.t. of cl. 1 FS5 at 1/1 burden

Beispiel eines Strom-Messwandlers der Kl. 1 FS5 bei 1/4 Bürde
Example for a measuring c.t. of cl. 1 FS5 at 1/4 burden

Beispiel eines Schutzwandlers 10P10 bei 1/1 Bürde
Example for a protection c.t. 10P10 at 1/1 burden

Beispiel eines Schutzwandlers 10P10 bei 1/4 Bürde
Example for a protection c.t. 10P10 at 1/4 burden

Useful accessory

Protection and safety through integration and installation aids

In conjunction with the current transformers, Janitza offers helpful accessories, such as voltage tap-offs and current transformer terminal blocks. Voltage tap-offs can be used, for example, for measurement purposes and to tap off the voltage on current-conducting rails. They ensure high levels of operational reliability, a protected measurement voltage connection and can be easily installed.

The modularly constructed current transformer terminal blocks on the other hand are suitable for installation on DIN rails and are required for the short-circuiting of current transformers or for monitoring measurements. In addition, they can also be used as insulated bridges for earthing and short circuiting the transformer terminal.

Terminals to tap off the voltage on current-conducting rails

Insulated tool

Protected measurement voltage connection

Current transformer terminal block – Short circuiting of current transformers, monitoring measurement of energy measurement devices

Hand in hand

No current transformers without measurement devices

The Janitza current transformers and the UMG measurement devices represent an ideal combination. Current transformers convert almost any level of primary current into "bite-sized" secondary current, which can be recorded and displayed by UMG measurement devices. Almost any current transformer can be combined with the energy measurement devices.

The Janitza measurement devices are suitable for front panel mounting or for DIN rail mounting. The product portfolio ranges from universal measurement devices through power quality analysers with class A certification through to MID energy meters. Because all Janitza devices have a wide selection of communication and interface facilities, the area of Industry 4.0 is nothing new, but rather has been part of our daily business for years. So, Janitza offers not only the corresponding hardware, but also the associated software through which the data can be recorded, displayed and evaluated. With this, Janitza offers the customers an individual tailored solution where the software and hardware components are ideally matched to one another. "Made in Germany" is the Janitza seal of quality. For over 30 years this has attested to our excellent quality.

Energy Monitoring Systems „Made in Germany"

Log energy data, display energy consumption, reduce costs
Nowadays, energy management is not only relevant for the environment and for society but is also a critical competitive factor. Only those who can keep a close eye on their energy consumption can reduce costs and increase efficiency. To ensure optimum use of the measurement devices, Janitza offers the corresponding accessories and tailored software - a complete package that guarantees efficient energy management.

The comprehensive Janitza product portfolio ranges from the current transformer and measurement device, from the communications devices and the IT environment, right through to software solutions and databases including data analyses and evaluations. After formulating the technical solution, on request Janitza provides support throughout the entire product life cycle. **For more information visit our website at www.janitza.com**

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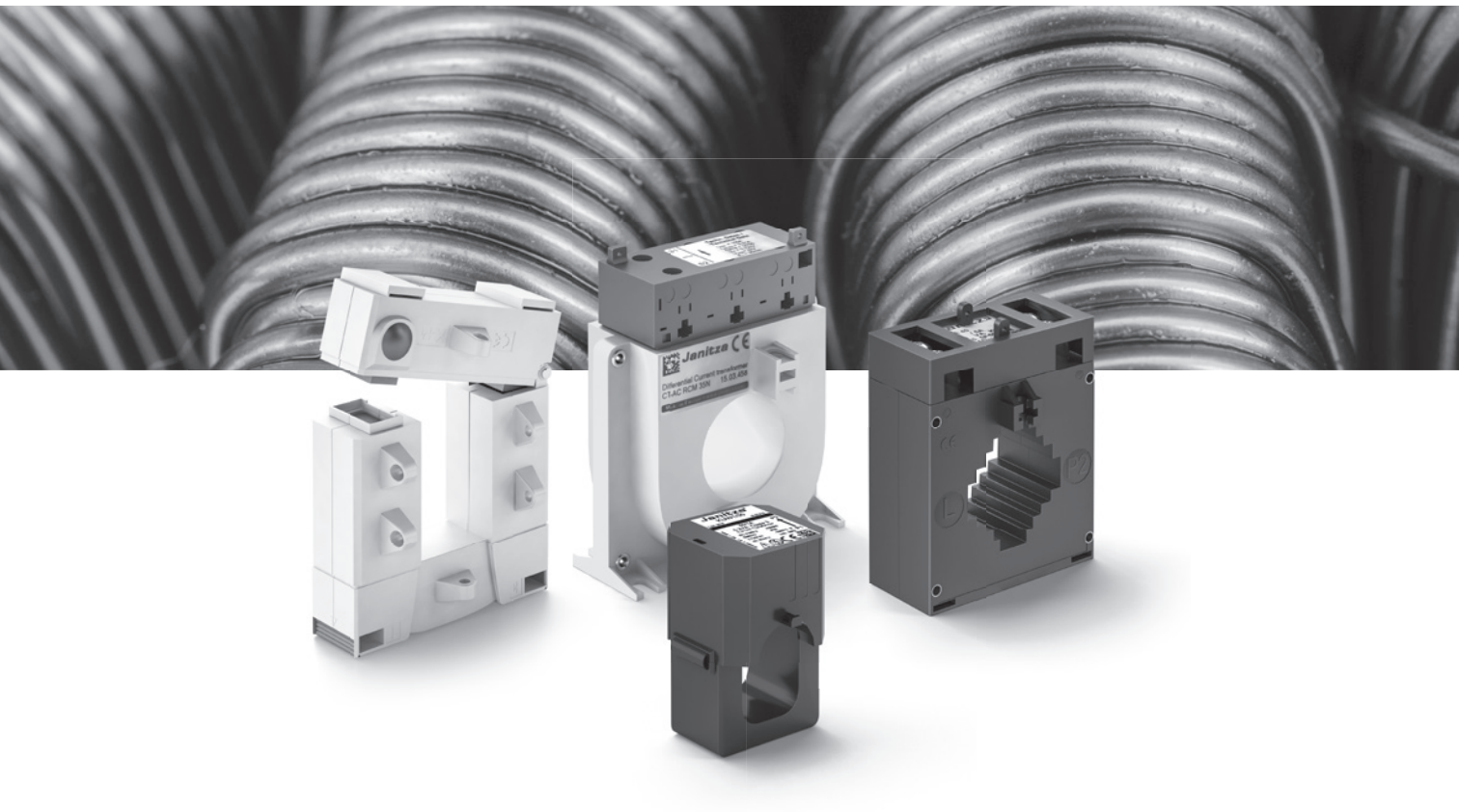


CURRENT TRANSFORMER TECHNICAL DATA

Janitza®

Moulded case current transformer

Class 1 and 0.5 to / 5 A

Device overview, moulded case current transformer, class 1 … / 5 A secondary current*							
Type	Primary current in A	Power in VA	Primary conductor	Round conductor in mm	Width in mm	Weight (kg)	Item no.
IPA40.5	60	2	40 x 10; 30 x 15; 25 x 20	30	70	0.6	**09.05.347**
IPA40	75	2	40 x 10; 30 x 15; 25 x 20	30	70	0.4	**09.05.348**
6A315.3	100	2.5	30 x 15 ; 20 x 20	28	60	0.3	**09.00.404**
6A315.3	150	5	30 x 15; 20 x 20	28	60	0.3	**09.00.452**
6A315.3	200	5	30 x 15, 20 x 20	28	60	0.3	**09.00.424**
6A315.3	250	5	30 x 15; 20 x 20	28	60	0.3	**09.00.425**
6A315.3	300	5	30 x 15; 20 x 20	28	60	0.3	**09.00.426**
6A315.3	400	5	30 x 15; 20 x 20	28	60	0.3	**09.00.427**
6A315.3	500	5	30 x 15; 20 x 20	28	60	0.3	**09.00.428**
6A315.3	600	5	30 x 15; 20 x 20	28	60	0.3	**09.00.429**
7A412.3	800	5	40 x 12; 2 x 30 x 10	33	70	0.4	**09.00.981**
7A412.3	1,000	5	40 x 12; 2 x 30 x 10	33	70	0.4	**09.00.982**
8A512.3	1,250	5	50 x 12; 2 x 40 x 10	42	85	0.5	**09.01.412**
8A512.3	1,500	5	50 x 12; 2 x 40 x 10	42	85	0.5	**09.01.413**
9A615.3	1,500	5	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.900**
9A615.3	1,600	10	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.901**
9A615.3	2,000	10	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.902**
9A615.3	2,500	10	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.903**

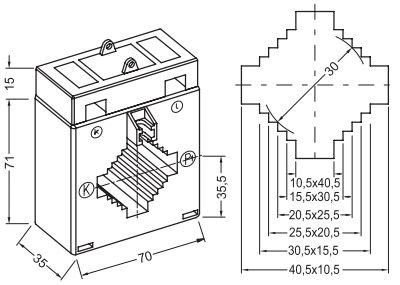
Device overview, moulded case current transformer, class 0.5 … / 5 A secondary current*							
Type	Primary current in A	Power in VA	Primary conductor	Round conductor in mm	Width in mm	Weight (kg)	Item no.
IPA40.5	60	2	40 x 10; 30 x 15; 25 x 20	30	70	0.6	**09.05.349**
IPA40.5	75	2	40 x 10; 30 x 15; 25 x 20	30	70	0.6	**09.05.350**
IPA40.5	100	2.5	30 x 15 ; 20 x 20	30	70	0.5	**09.05.351**
IPA40.5	150	10	30 x 15; 20 x 20	30	70	0.6	**09.05.236**
6A315.3	200	3.75	30 x 15, 20 x 20	28	60	0.3	**09.00.360**
6A315.3	250	5	30 x 15; 20 x 20	28	60	0.3	**09.00.361**
6A315.3	300	5	30 x 15; 20 x 20	28	60	0.3	**09.00.362**
6A315.3	400	5	30 x 15; 20 x 20	28	60	0.3	**09.00.363**
6A315.3	500	5	30 x 15; 20 x 20	28	60	0.3	**09.00.364**
6A315.3	600	5	30 x 15; 20 x 20	28	60	0.3	**09.00.365**
7A412.3	800	5	40 x 12; 2 x 30 x 10	33	70	0.4	**09.00.887**
7A412.3	1,000	5	40 x 12; 2 x 30 x 10	33	70	0.4	**09.00.888**
8A512.3	1,250	5	50 x 12; 2 x 40 x 10	42	85	0.4	**09.01.339**
9A615.3	1,500	5	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.820**
9A615.3	1,600	10	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.821**
9A615.3	2,000	10	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.822**
9A615.3	2,500	10	63 x 15; 2 x 50 x 10	53	95	0.5	**09.01.823**

Accessories			
Snap fastening	For DIN rail EN 50022-35, suitable for 9A615.3, IPA40 style, 1 pair	0.01	**09.09.000**
Snap fastening	For DIN rail EN 50022-35, suitable for 6A315.3, 7A412.3, 8A512.3 and 9A615.3 style, 1 pair	0.01	**09.09.001**
Snap fastening	For DIN rail EN 50022-35, suitable for IPA40.5 style, 1 pair	0.01	**09.09.002**

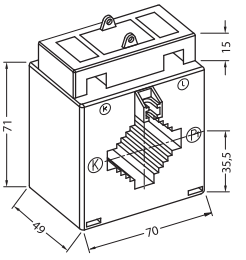
* Secondary current transformer … / 1 A as well as other types on request.

Dimension diagrams All dimensions in mm

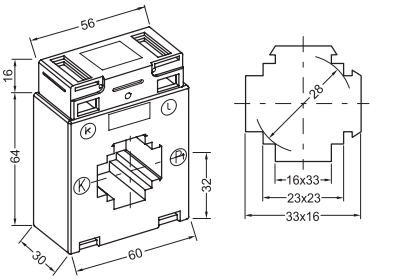
IPA40



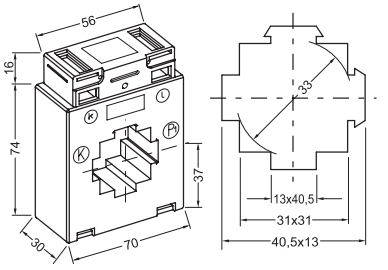
IPA40.5



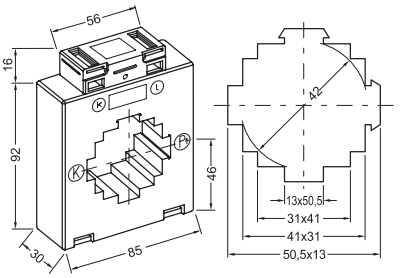
6A315.3



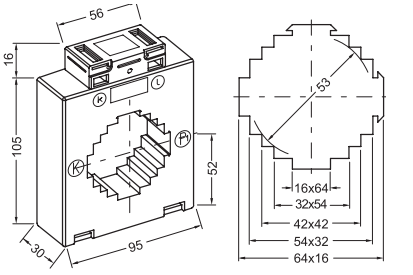
7A412.3



8A512.3



9A615.3



Moulded case current transformer for billing purposes

Class 0.5 to / 5 A

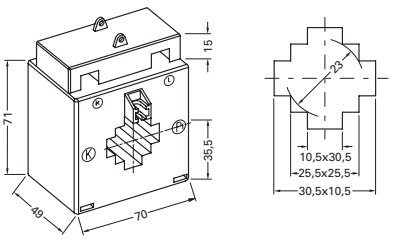
Device overview, moulded case current transformer, class 0.5 … / 5 A Secondary current*							
Type	**Primary current in A**	**Power in VA**	**Primary conductor**	**Round conductor in mm**	**Width in mm**	**Weight (kg)**	**Item no.**
EIPA30.5	50	1.25	30.5 x 10.5; 25.5 x 25.5; 10.5 x 30.5	23	70	0.4	**09.14.810**
EIPA30.5	75	2.5	30.5 x 10.5; 25.5 x 25.5; 10.5 x 30.5	23	70	0.4	**09.14.812**
EIPA30.5	100	2.5	30.5 x 10.5; 25.5 x 25.5; 10.5 x 30.5	23	70	0.3	**09.14.811**
E6A315.3	200	2.5	33 x 16; 23 x 23; 16 x 33	28	60	0.3	**09.10.340**
E6A315.3	250	5	33 x 16; 23 x 23; 16 x 33	28	60	0.3	**09.10.367**
E6A315.3	300	5	33 x 16; 23 x 23; 16 x 33	28	60	0.3	**09.10.366**
E6A315.3	400	5	33 x 16; 23 x 23; 16 x 33	28	60	0.3	**15.02.907**
E6A315.3	500	5	33 x 16; 23 x 23; 16 x 33	28	60	0.3	**09.10.364**
E6A315.3	600	5	33 x 16; 23 x 23; 16 x 33	28	60	0.3	**09.11.365**
E7A412.3	800	5	40.5 x 13; 31 x 31; 13 x 40.5	33	70	0.3	**09.10.390**
E7A412.3	1,000	5	40.5 x 13; 31 x 31; 13 x 40.5	33	70	0.4	**09.10.888**
E9A615.3	1,500	5	64 x 16; 54 x 32; 42 x 42; 32 x 54; 16 x 64	53	95	0.4	**09.10.387**
E13A1030.3	1,600	5	101 x 31; 84 x 64; 54 x 81	85	129	0.5	**09.12.887**
E13A1030.3	2,000	5	101 x 31; 84 x 64; 54 x 81	85	129	0.5	**09.12.888**
E13A1030.3	2,500	5	101 x 31; 84 x 64; 54 x 81	85	129	0.5	**09.12.889**

Description	Item no.
Declaration of conformity with error directory	09.50.011

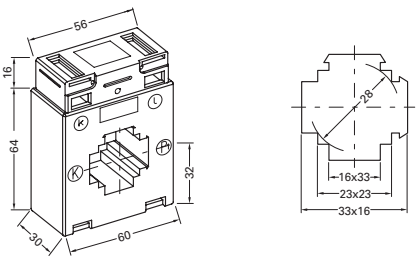
* Transformers are manufactured on an order-by-order basis, no stock held, no returns. Current transformers with different primary or secondary currents on request.

Dimension diagrams All dimensions in mm

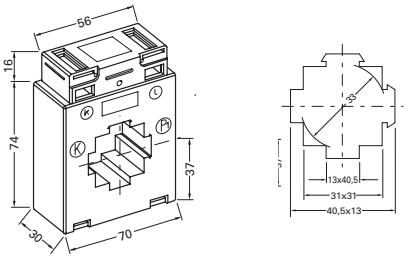
EIPA30.5



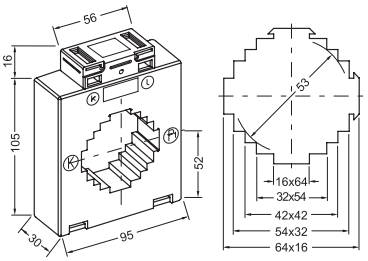
E6A315.3



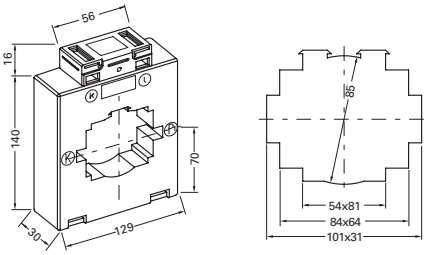
E7A412.3



E9A615.3



E13A1030.3



Moulded case current transformer for billing purposes

Class 0.2S

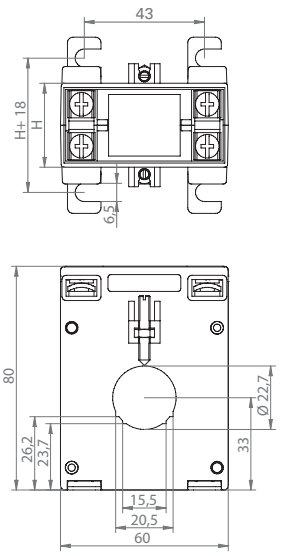
Device overview, moulded case current transformer, class 0.2S / 0.5S, 5 A secondary current									
Type	**Primary current in A**	**Class**	**Power in VA**	**Transformation ratio**	**Primary conductor**	**Round conductor in mm**	**Width in mm**	**Weight (kg)**	**Item no.**
ERM60-E3A	150	0.2S	0 – 1 VA	150/5 A	30 x 10	24.5	60	0.4	**09.06.212**
ERM60-E3A	200	0.2S	0 – 2 VA	200/5 A	30 x 10	24.5	60	0.4	**09.06.213**
ERM60-E3A	250	0.2S	0 – 2.5 VA	250/5 A	30 x 10	24.5	60	0.4	**09.06.214**
ERM70-E4A	300	0.2S	0 – 2.5 VA	300/5 A	40 x 10	30.5	70	0.4	**09.06.215**
ERM70-E4A	400	0.2S	0 – 5 VA	400/5 A	40 x 10	30.5	70	0.4	**09.06.216**
ERM70-E4A	500	0.2S	0 – 5 VA	500/5 A	40 x 10	30.5	70	0.4	**09.06.217**
ERM70-E4B	600	0.2S	0 – 5 VA	600/5 A	40 x 10	30.5	70	0.5	**09.06.218**
ERM70-E4B	750	0.2S	0 – 5 VA	750/5 A	40 x 10	30.5	70	0.5	**09.06.219**
ERM85-E6A	1000	0.2S	0 – 5 VA	1000/5 A	60 x 10	30.6	85	0.6	**09.06.220**

Accessories	
Mounting clips ERM60/ERM70	**09.09.012**

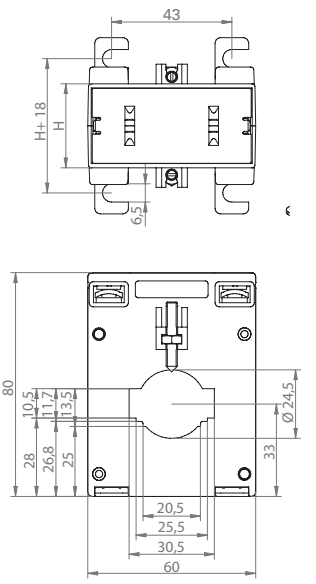
These transformers are not on stock and will be ordered to customer order, products are excluded from return.

Dimension diagrams All dimensions in mm

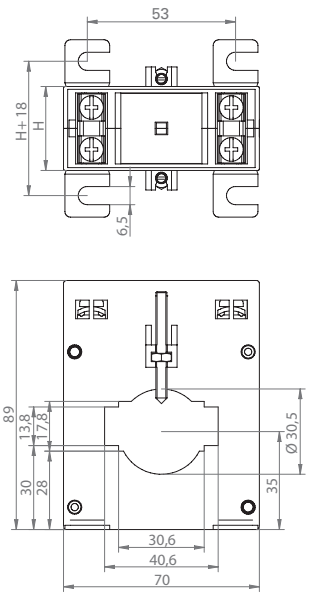
ERM60-E2A



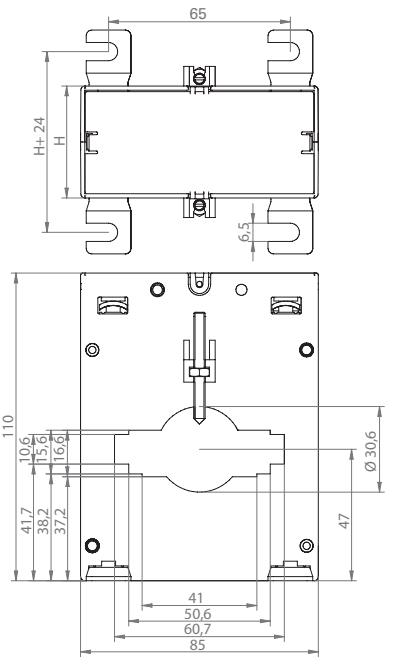
ERM60-E3A



ERM70-E4A



ERM85-E6A



Summation current transformer

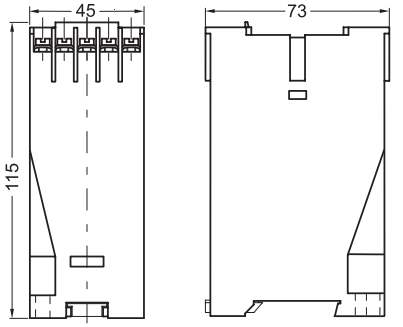
Class 1 and class 0.5 for feedthrough and split core

Device overview – summation current transformer, class 1							
Type	**Primary current in A**	**Secondary current in A**	**Power in VA**	**Transformation ratio**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
IPS20	5+5	5	15	1:1	115 x 45 x 73	0.4	**15.02.510**
IPS30	5+5+5	5	15	1:1:1	115 x 45 x 73	0.4	**15.02.515**
IPS40	5+5+5+5	5	15	1:1:1:1	115 x 45 x 73	0.5	**15.02.520**
IPS20	1+1	1	15	1:1	115 x 45 x 73	0.5	**09.05.306**
IPS30	1+1+1	1	15	1:1:1	115 x 45 x 73	0.5	**09.05.316**
IPS40	1+1+1+1	1	15	1:1:1:1	115 x 45 x 73	0.5	**09.05.326**
IPS21	5+5	5	15	Customer-specific	115 x 45 x 73	0.4	**15.02.526**
IPS31	5+5+5	5	15	Customer-specific	115 x 45 x 73	0.4	**15.02.521**
IPS41	5+5+5+5	5	10	Customer-specific	115 x 45 x 73	0.5	**15.02.525**

Device overview – summation current transformer, class 0.5							
Type	**Primary current in A**	**Secondary current in A**	**Power in VA**	**Transformation ratio**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
IPS20	5+5	5	15	1:1	115 x 45 x 73	0.5	**15.02.511**
IPS30	5+5+5	5	15	1:1:1	115 x 45 x 73	0.5	**15.02.516**
IPS40	5+5+5+5	5	15	1:1:1:1	115 x 45 x 73	0.5	**15.02.519**

Not to be used in conjunction with split-core current transformers.
*[1] Other currents on request.

Dimension diagrams All dimensions in mm



Janitza®

Summation current transformer

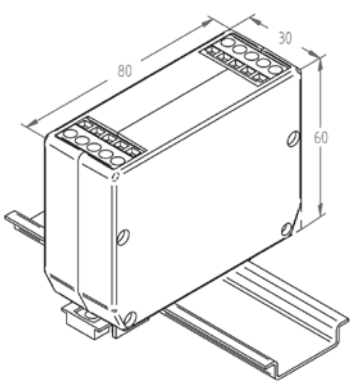
Class 1 for cable type split core current transformers

Device overview – summation current transformer, class 1							
Type	**Primary current in A**	**Secondary current in A**	**Power in VA**	**Transformation ratio**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
STS20	1+1	1	0.2	1:1	80 x 30 x 60	0.2	**15.02.560**
STS30	1+1+1	1	0.2	1:1:1	80 x 30 x 60	0.2	**15.02.561**
STS40	1+1+1+1	1	0.2	1:1:1:1	80 x 55 x 60	0.4	**15.02.562**
STS50	1+1+1+1+1	1	0.2	1:1:1:1:1	80 x 55 x 60	0.4	**15.02.563**
STS60	1+1+1+1+1+1	1	0.2	1:1:1:1:1:1	80 x 55 x 60	0.4	**15.02.564**
STS21	1+1	1	0.2	Customer-specific	80 x 30 x 60	0.2	**15.02.570**
STS31	1+1+1	1	0.2	Customer-specific	80 x 30 x 60	0.2	**15.02.571**
STS41	1+1+1+1	1	0.2	Customer-specific	80 x 55 x 60	0.4	**15.02.572**
STS51	1+1+1+1+1	1	0.2	Customer-specific	80 x 55 x 60	0.4	**15.02.573**
STS61	1+1+1+1+1+1	1	0.2	Customer-specific	80 x 55 x 60	0.4	**15.02.574**

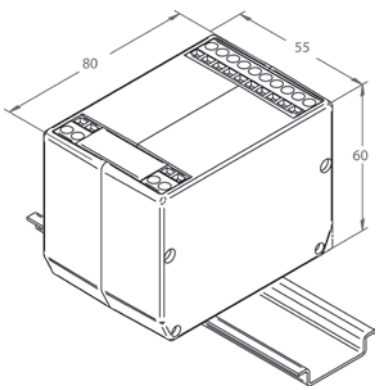
With dissimilar main transformers, the ratio of the largest to the smallest primary current should not be greater than 10:1.

Dimension diagrams All dimensions in mm

STS20 / STS30 / STS21 / STS31



STS40 / STS50 / STS60 / STS41 / STS51 / STS61



Cable split core current transformers

Series KUW1 for insulated cable up to max. 18 mm diameter								
Type	**Primary current in A**	**Secondary current in A**	**Power in VA** (at the end of the wire)	**Class**	**Cable length in m**	**Diameter Primary conductor in mm**	**Weight (kg)**	**Item no.**
KUW1/30-60	60	1	0.2	3	3	18	0.3	**15.03.510**
KUW1/30-75	75	1	0.2	3	3	18	0.3	**15.03.511**
KUW1/30-100	100	1	0.2	3	3	18	0.3	**15.03.512**
KUW1/30-125	125	1	0.2	3	3	18	0.3	**15.03.513**
KUW1/30-150	150	1	0.2	3	3	18	0.3	**15.03.514**
KUW1/30-200	200	1	0.2	1	3	18	0.3	**15.03.515**
KUW1/30-250	250	1	0.2	1	3	18	0.3	**15.03.317**
KUW1/40-100	100	1	0.2	1	3	18	0.4	**15.03.320**
KUW1/40-125	125	1	0.2	1	3	18	0.4	**15.03.321**
KUW1/40-150	150	1	0.2	1	3	18	0.4	**15.03.322**
KUW1/40-200	200	1	0.2	0.5	3	18	0.4	**15.03.325**
KUW1/40-250	250	1	0.2	0.5	3	18	0.4	**15.03.326**
KUW1/40-150	150	5	1	1	0.5	18	0.4	**15.03.329**
KUW1/40-200	200	5	1	1	0.5	18	0.4	**15.03.330**
KUW1/40-250	250	5	1	0.5	0.5	18	0.4	**15.03.331**

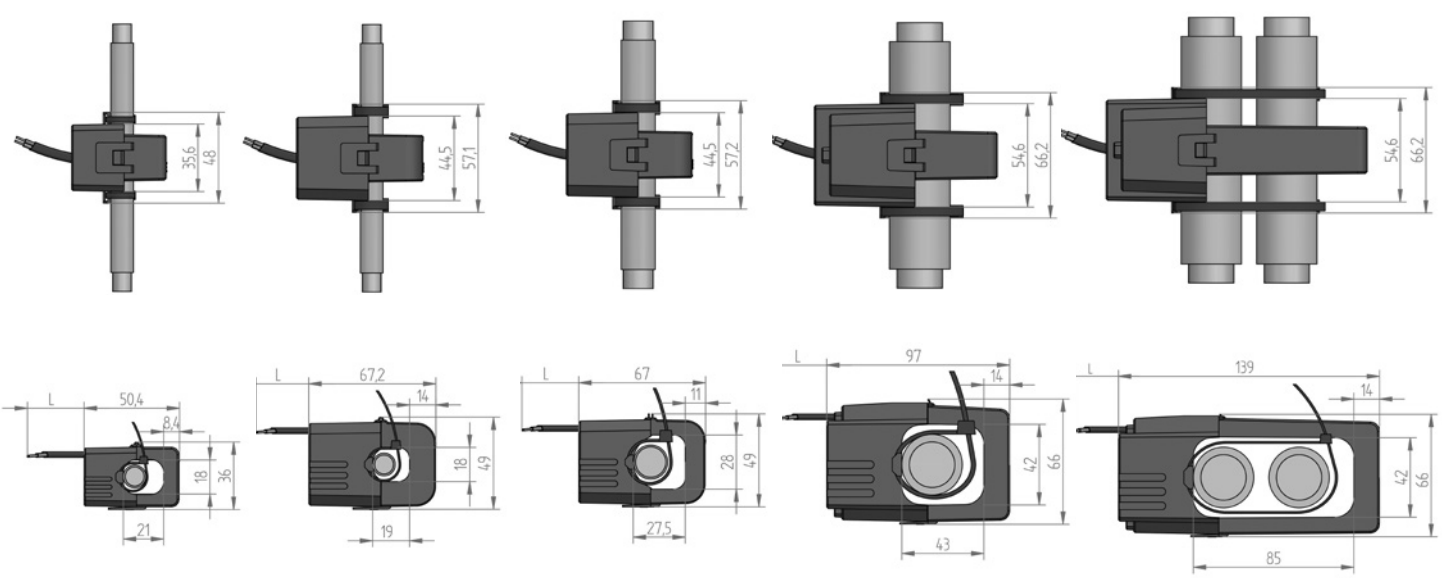
Series KUW2 for insulated cable max. 28 mm diameter								
Type	**Primary current in A**	**Secondary current in A**	**Power in VA** (at the end of the wire)	**Class**	**Cable length in m**	**Diameter Primary conductor in mm**	**Weight (kg)**	**Item no.**
KUW2/40-200	200	1	0.2	1	3	28	0.3	**15.03.351**
KUW2/40-250	250	1	0.2	1	3	28	0.3	**15.03.352**
KUW2/40-300	300	1	0.2	1	3	28	0.3	**15.03.354**
KUW2/40-400	400	1	0.2	1	3	28	0.4	**15.03.356**
KUW2/40-500	500	1	0.2	0.5	3	28	0.4	**15.03.358**
KUW2/40-250	250	5	1	1	0.5	28	0.3	**15.03.353**
KUW2/40-300	300	5	1	1	0.5	28	0.3	**15.03.355**
KUW2/40-400	400	5	1	1	0.5	28	0.3	**15.03.357**
KUW2/40-500	500	5	1	1	0.5	28	0.3	**15.03.359**

Series KUW4/60 for insulated cable up to max. 42 mm diameter								
Type	**Primary current in A**	**Secondary current in A**	**Power in VA** (at the end of the wire)	**Class**	**Cable length in m**	**Diameter Primary conductor in mm**	**Weight (kg)**	**Item no.**
KUW4/60-250	250	1	0.5	1	5	42	0.6	**15.03.565**
KUW4/60-300	300	1	0.5	1	5	42	0.6	**15.03.566**
KUW4/60-400	400	1	0.5	0.5	5	42	0.6	**15.03.568**
KUW4/60-500	500	1	0.5	0.5	5	42	0.6	**15.03.570**
KUW4/60-600	600	1	0.5	0.5	5	42	0.6	**15.03.572**
KUW4/60-750	750	1	0.5	0.5	5	42	0.6	**15.03.574**
KUW4/60-800	800	1	0.5	0.5	5	42	0.6	**15.03.576**
KUW4/60-1000	1,000	1	0.5	0.5	5	42	0.6	**15.03.578**
KUW4/60-300	300	5	0.5	1	3	42	0.6	**15.03.367**
KUW4/60-400	400	5	0.5	1	3	42	0.5	**15.03.369**
KUW4/60-500	500	5	0.5	1	3	42	0.6	**15.03.371**
KUW4/60-600	600	5	0.5	0.5	3	42	0.5	**15.03.373**
KUW4/60-750	750	5	0.5	0.5	3	42	0.6	**15.03.375**
KUW4/60-800	800	5	0.5	0.5	3	42	0.6	**15.03.377**
KUW4/60-1000	1,000	5	0.5	0.5	3	42	0.6	**15.03.379**

Series KUW4.2/60 for insulated cable up to max. 2 x 42 mm diameter								
Type	**Primary current in A**	**Secondary current in A**	**Power in VA** (at the end of the wire)	**Class**	**Cable length in m**	**Diameter Primary conductor in mm**	**Weight (kg)**	**Item no.**
KUW4.2/60-250	250	1	0.5	1	5	42 x 84	0.7	**15.03.580**
KUW4.2/60-300	300	1	0.5	1	5	42 x 84	0.8	**15.03.581**
KUW4.2/60-400	400	1	0.5	0.5	5	42 x 84	0.7	**15.03.583**
KUW4.2/60-500	500	1	0.5	0.5	5	42 x 84	0.8	**15.03.585**
KUW4.2/60-600	600	1	0.5	0.5	5	42 x 84	0.7	**15.03.587**
KUW4.2/60-750	750	1	0.5	0.5	5	42 x 84	0.8	**15.03.589**
KUW4.2/60-800	800	1	0.5	0.5	5	42 x 84	0.8	**15.03.591**
KUW4.2/60-1000	1,000	1	0.5	0.5	5	42 x 84	0.8	**15.03.593**
KUW4.2/60-300	300	5	0.5	1	3	42 x 84	0.7	**15.03.382**
KUW4.2/60-400	400	5	0.5	1	3	42 x 84	0.8	**15.03.384**
KUW4.2/60-500	500	5	0.5	1	3	42 x 84	0.6	**15.03.386**
KUW4.2/60-600	600	5	0.5	0.5	3	42 x 84	0.7	**15.03.388**
KUW4.2/60-750	750	5	0.5	0.5	3	42 x 84	0.8	**15.03.390**
KUW4.2/60-800	800	5	0.5	0.5	3	42 x 84	0.8	**15.03.392**
KUW4.2/60-1000	1,000	5	0.5	0.5	3	42 x 84	0.8	**15.03.394**

Dimension diagrams All dimensions in mm

KUW1/30 **KUW1/40** **KUW2/40** **KUW4/60** **KUW4.2/60**



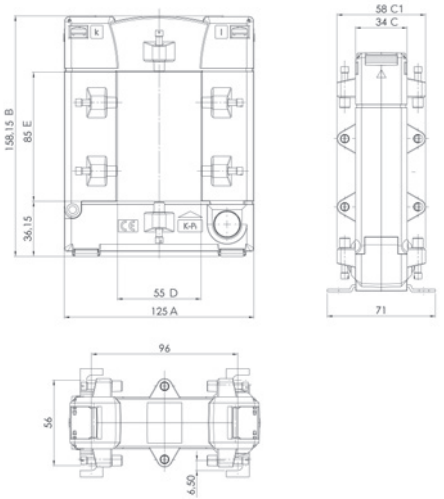
Cable split core current transformer

Type KBU

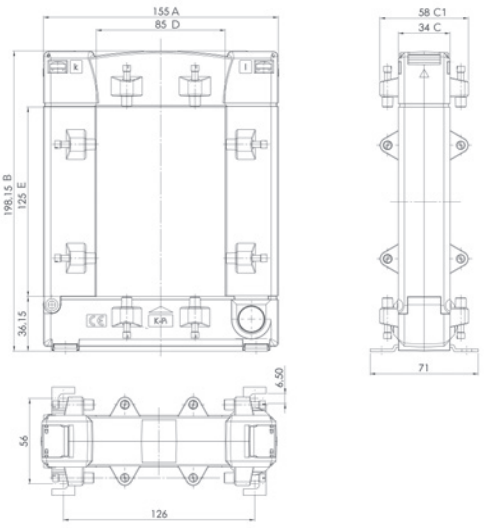
Cable split core current transformer, type KBU											
Type	Primary current in A	Secondary current in A	Power in VA	Class	Dimensions in mm					Weight (kg)	Item no.
					A	B	C / C1	D	E		
KBU 58	250	5	1.5	1	125	158	34 / 58	55	85	0.9	**15.02.316**
KBU 58	400	5	1	0.5	125	158	34 / 58	55	85	0.9	**15.02.868**
KBU 58	500	5	2.5	0.5	125	158	34 / 58	55	85	0.9	**15.02.819**
KBU 58	600	5	2.5	0.5	125	158	34 / 58	55	85	1.0	**15.02.315**
KBU 58	1000	5	5	0.5	125	158	34 / 58	55	85	1.0	**15.02.320**
KBU 812	600	5	2.5	0.5	155	198	34 / 58	85	125	1.3	**15.02.869**
KBU 812	800	5	2.5	0.5	155	198	34 / 58	85	125	1.3	**15.02.870**
KBU 812	1000	5	5	0.5	155	198	34 / 58	85	125	1.3	**15.02.871**
KBU 812	1250	5	7.5	0.5	155	198	34 / 58	85	125	1.3	**15.02.328**

Dimension diagrams All dimensions in mm

KBU 58



KBU 812



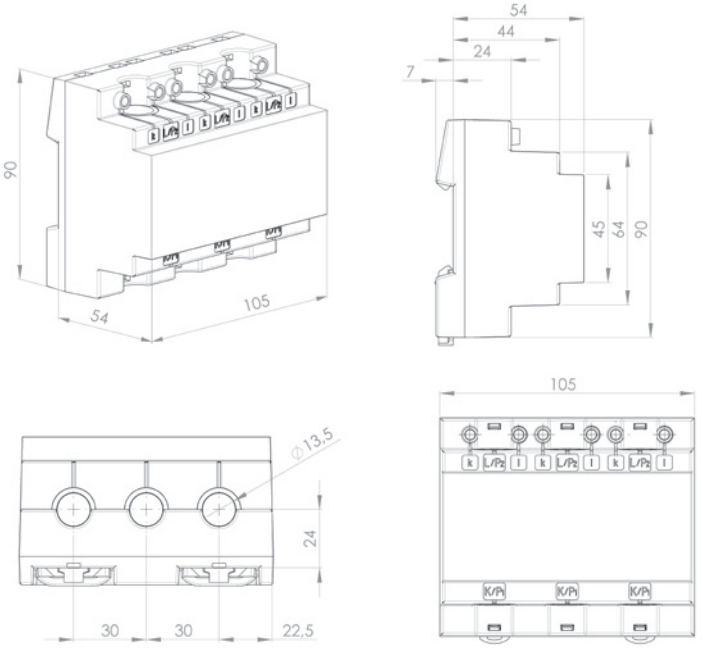
Janitza®

Three-phase current transformer

Type ASRD 14

Three-phase current transformer type ASRD 14								
Type	**Primary current in A**	**Secondary current in A**	**Power in VA**	**Class**	**Round conductor in mm**	**Dimensions in mm (W x H x D)**	**Weight (kg)**	**Item no.**
ASRD 14	50	5	1	1	13.0	105 x 90 x 54	0.5	**15.03.403**
ASRD 14	75	5	1.5	1	13.0	105 x 90 x 54	0.5	**15.03.404**
ASRD 14	100	5	2.5	1	13.0	105 x 90 x 54	0.5	**15.03.405**
ASRD 14	125	5	2.5	0.5	13.0	105 x 90 x 54	0.5	**15.03.406**
ASRD 14	150	5	2.5	0.5	13.0	105 x 90 x 54	0.5	**15.03.407**

Dimension diagrams All dimensions in mm

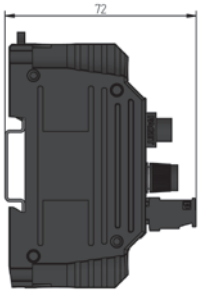


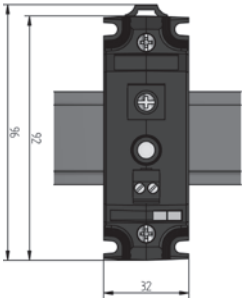
DIN rail current transformer

With voltage tap-off and back-up fuse

DIN rail current transformer						
Type	**Transmission ratio**	**Power in VA**	**Class**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
CT 35/1A	35/1 A	0.2	1	approx. 72 x 32 x 96	0.2	**15.03.002**
CT 64/1A	64/1 A	0.2	0.5	approx. 72 x 32 x 96	0.2	**15.03.003**

Dimension diagrams All dimensions in mm





Janitza®

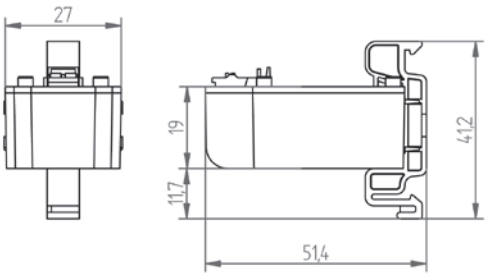
Compact current transformer

Class 1

For operating current

Compact current transformer CT27 - class 1							
Type	**Primary current in A**	**Secondary current in A**	**Power in VA (on the terminals)**	**Max. primary conductor diameter in mm**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
CT27-35	35	1	0.2	7.5	approx. 46 x 27 x 23	0.05	**15.03.080**
CT27-64	64	1	0.2	7.5	approx. 46 x 27 x 23	0.04	**15.03.081**
Accessories							
Snap fastening	For DIN rail EN 50022-35, suitable for CT27-35 and CT27-64				approx. 14 x 41 x 27	Approx. 0.1	**09.09.010**

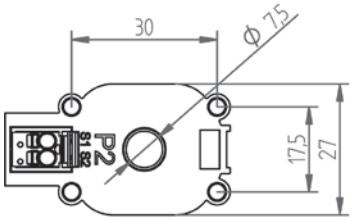
Dimension diagrams All dimensions in mm

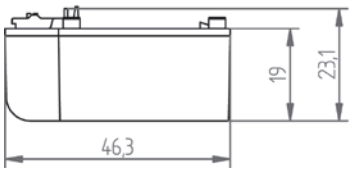


For operating current and residual current for the measurement device UMG 20CM

Device overview - Current transformer CT-20 - operating or residual current transformer type A								
Operating or residual current transformer type A	**Max. operating current in A**	**Residual current in mA**	**Transformation ratio**	**Max. primary conductor diameter in mm**	**Class**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
CT-20	63 (with load)	10 to 1000	700/1	7.5	1	approx. 46 x 27 x 23	0.05	**15.03.082**
Accessories								
Snap fastening	For DIN rail EN 50022-35, suitable for type CT-20					approx. 14 x 41 x 27	Approx. 0.1	**09.09.010**
Pre-finished connection cable	1.5 m with load (0.8 Ω) and spring terminal for operating current measurement							**15.03.085**

Dimension diagrams All dimensions in mm





Flexible current transformer

Rogowski coils

Description	Item no.	Diameter	Length	Weight
Rogowski current transformer Ø 70 mm	**15.03.609**	70 mm	3 m	192 g
Rogowski current transformer Ø 175 mm	**15.03.610**	175 mm	3 m	206 g
Rogowski current transformer Ø 300 mm	**15.03.611**	300 mm	3 m	222 g
Rogowski coil, 600mm (without measurement transducer)	**15.03.603**	190 mm	600 mm	195 g

Technical data			
Item no.	**15.03.609**	**15.03.610**	**15.03.611**
Max. output voltage	30 V	30 V	30 V
Primary current*1	up to 10000 A*1	up to 10000 A*1	up to 10000 A*1
Rated transformation ratio (@ 50 Hz)	44,44 kA/V	44,44 kA/V	44,44 kA/V
Rated frequency	50/60 Hz	50/60 Hz	50/60 Hz
Secondary voltage	22,5 mV (at 1000 A / 50 Hz)	22,5 mV (at 1000 A / 50 Hz)	22,5 mV (at 1000 A / 50 Hz)
Mutual inductance	71,98 nH	72,314 nH	72,84 nH
Temperature coefficient of M	±30 ppm/K	±30 ppm/K	±30 ppm/K
Frequency bandwidth (cable length 1,5 m)*2	420 kHz*2	350 kHz*2	300 kHz*2
Phase displacement	0,004°*3	0,004°*3	0,004°*3
Coil inductance	180 µH	343 µH	566 µH
Coil resistance	56 Ω	105 Ω	170 Ω
Ratio error (cenred)	– 0,5 ... 0,5 % class 0,5 Accuracy per IEC 61869-2	– 0,5 ... 0,5 % class 0,5 Accuracy per IEC 61869-2	– 0,5 ... 0,5 % class 0,5 Accuracy per IEC 61869-2
Ration error (all positions)*4	– 0,75 ... 0,75*4 incl. positioning errors	– 0,75 ... 0,75*4 incl. positioning errors	– 0,75 ... 0,75*4 incl. positioning errors
Linearity error	none	none	none
Influence of external current*5	±0,2*5	±0,2*5	±0,2*5

*1 In combination with Janitza measurement transducer RogoTrans up to 4000 A.
*2 On request, the frequency bandwidth and phase shifting model can be made available.
*3 With installation at a right angle to the phase conductor.
*4 Under consideration that the Janitza Rogowski current transformer is installed perpendicular to a primary conductor of min. Ø 15 mm.
*5 Under consideration that a further phase conductor of min. Ø 15 mm is installed at the same height and at a right angle to the Janitza Rogowski current transformer.

Measurement transducer

General data for measurement transducer	
Item no.	**15.03.612**
Dimesions	22.5 x 100 x 110 mm (W x H x D)
Weight	approx. 0.2 kg
Power supply	24 V DC (18 to 36 V) / 1 A
Current draw	< 300 mA (with 1 A output current) < 80 mA (without output current)
Input	Janitza Rogowski coil max. 90 mV (4000 A range)
Current metering ranges	1 to 4000 A 1 to 2000 A 1 to 1000 A 1 to 500 A 1 to 250 A
Metering range setting (button) LED (yellow)	Wear-free metering range selection via micro-controller and PGA
Operating and metering range display	via 6 LED (green)
Phase angle	< 1°
Linearity error at 50 Hz Measuring error at 50 Hz	< 0.2% in all metering ranges < 0.2% in all metering ranges
Input impedance	10 k Ω in all metering ranges
Signal output	0 to 1 A
Measurement range exceeding	110%
Burden	0 to 1.5 Ohm
Linearity error burden 0 to 1.5 Ohm	< 0,02%
Alarm output	24 V DC / 200 mA (floating potential optical output, open with fault)
Alarm messages (via red LED)	Overload (range exceeding) Burden too great (output circuit) Undervoltage (24 V)
Alarm delay	60 seconds
Protection type	IP30
Ambient temperature	–20°C to +70°C
Installation position	Vertical; if multiple devices are used next to each other then a minimum distance of 5 mm must be maintained between the devices (heat development)
Storage temperature	–25°C to +85°C

Split-core current transformer

for the UMG 20CM

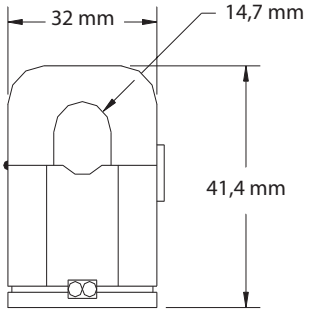
For operating current

Device overview - Split-core current transformer SC-CT-20								
Type	**Max. operating current (A)**	**Transformation ratio**	**Max. primary conductor diameter in mm**	**Class**	**Accuracy (%)**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
SC-CT-20*	63	3,000/1	10	1	1	approx. 41.4 x 32 x 32.3	0.04	**15.03.092**
Individual accessory (load is included the scope of the SC-CT-20 delivery)								
Load (3.9 Ω) for operating current transformer SC-CT-20 with 1.5 m connection cable and spring terminal								**15.03.086**

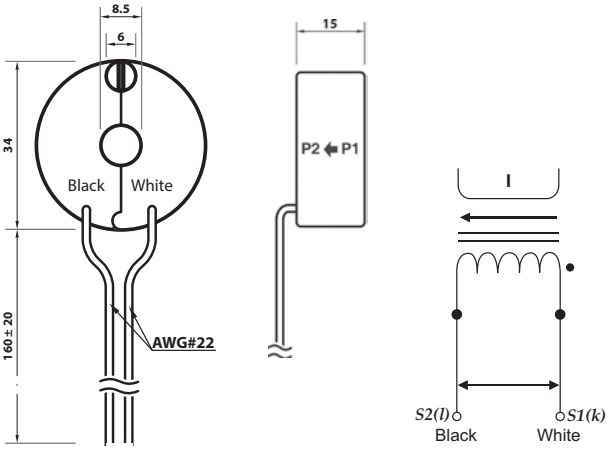
* Incl. ready-made connection cable; 1.5 m with load and spring terminal for operating current measurement

Dimension diagrams

All dimensions in mm



For operating current



For operating current and residual current for the measurement device UMG 20CM

For operating current and residual current for the measurement device UMG 20CM

Device overview - Split-core current transformer SC-CT-21								
Type	**Residual current (mA)**	**Transformation ratio**	**Max. primary conductor diameter in mm**	**Class**	**Accuracy (%)**	**Dimensions in mm (H x W x D)**	**Weight (kg)**	**Item no.**
SC-CT-21	10 to 1,000	700/1	8	1	1	approx. 35 x 35 x 16	0.05	**15.03.084**

Split-core current transformer

for the UMG 20CM

For operating current

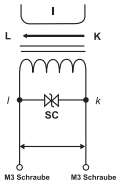
Technical data						
Type	**SC-CT-20-100**	**SC-CT-20-200**	**SC-CT-20-300**	**SC-CT-20-400**	**SC-CT-20-500**	**SC-CT-20-600**
Current ratio	120 A / 40 mA	200 A / 66.6 mA	300 A / 100 mA	400 A / 100 mA	500 A / 100 mA	600 A / 100 mA
Current range (50/60 Hz)	0.01 to 100 A (RL = 10 Ohm)	0.01 to 200 A (RL = 10 Ohm)	0.1 to 300 A (RL = 10 Ohm)	0.01 to 400 A (RL = 5 Ohm)	0.01 to 500 A (RL = 5 Ohm)	0.01 to 600 A (RL = 5 Ohm)
Position of installation	Use in indoor areas (any mounting position)					
Operating temperature	-20 to +50 °C			-20 to +55 °C		
Storage temperature	-30 to +90 °C, rel. humidity <85 % (no condensation)					

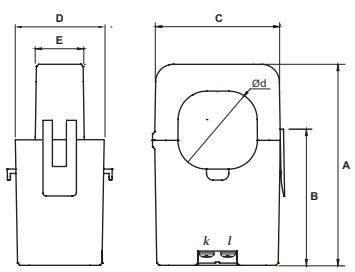
Device overview - Divisible operating current transformer up to 600 A												
Type	**Operating mode**	**Max. operating current in A**	**Transformation ratio**	**Max. primary conductor diameter in mm**	**Accuracy (%)**	**Dimensions in mm (H x W x D)**					**Weight (kg)**	**Item no.**
						A	**B**	**C**	**D**	**E**		
SC-CT-20-100	Operating current measurement*1	100	3000/1	16	1	55	41	29.5	31	19	Approx. 0.075	**15.03.093**
SC-CT-20-200	Operating current measurement*1	200	3000/1	24	1	74.5	52	45	34	22	Approx. 0.2	**15.03.094**
SC-CT-20-300	Operating current measurement*1	300	3000/1	24	1	74.5	52	45	34	22	Approx. 0.2	**15.03.095**
SC-CT-20-400	Operating current measurement*1	400	4000/1	36	0.5	91.4	57.0	57.1	40.2	21.1	Approx. 0.3	**15.03.097**
SC-CT-20-500	Operating current measurement*1	500	5000/1	36	0.5	91.4	57.0	57.1	40.2	21.1	Approx. 0.3	**15.03.099**
SC-CT-20-600	Operating current measurement*1	600	6000/1	36	0.5	91.4	57.0	57.1	40.2	21.1	Approx. 0.3	**15.03.101**

Individual accessory (load is included the scope of the transformer delivery)	
Load (2.2 Ω) for operating current transformer SC-CT-20-100 with 1.5 m connection cable and spring terminal	**15.03.087**
Load (1.1 Ω) for operating current transformer SC-CT-20-200 with 1.5 m connection cable and spring terminal	**15.03.088**
Load (0.8 Ω) for operating current transformer SC-CT-20-300/400/500/600 with 1.5 m connection cable and spring terminal	**15.03.085**

*1 Incl. ready-made connection cable; 1.5 m with load and spring terminal for operating current measurement

Dimension diagrams All dimensions in mm





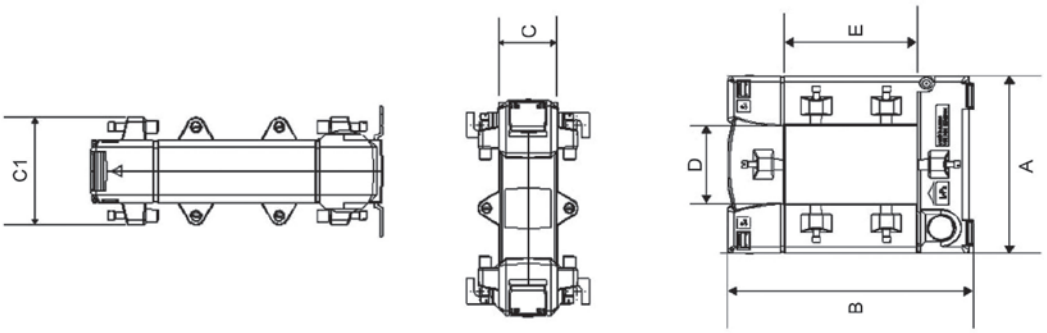
Split-core residual current transformer

Technical data	
General	
Construction style	Low voltage residual current transformer
Housing material	Polycarbonate, grey RAL 7035
Max. voltage for electrical equipment	Um < = 0.72 kV
Insulation test voltage	3 kV Ueff.; 50 Hz; 1 min
Rated frequency	50 Hz
Secondary connection	Brass profile, nickel plated, max. 4.0 mm²
Nominal ratio Ipn / Isn	10 / 0.0167 A
Working frequency range	30 ... 1000 Hz
Secondary rated apparent power	0.05 VA
Operational temperature range	-5 to +45 °C
Max. temperature of the primary conductor	90 °C

Device overview - split-core residual current transformer type A									
Type	Transformation ratio	Max. primary residual current in mA*1	Dimensions in mm					Weight (kg)	Item no.
			A	B	C / C1	D	E		
KBU 23D*2	600/1	18000	93	106	34/58	20	30	0.7	**15.03.400**
KBU 58D*2	600/1	18000	125	158	34/58	55	85	1.1	**15.03.401**
KBU 812D*2	600/1	18000	155	198	34/58	85	125	1.5	**15.03.402**
Accessories									
Burden (3,9 Ω) with 1.5 m ready-made connection cable and spring type terminal adapter									**15.03.086**

*1 When using the analogue inputs of the UMG 96RM-E, UMG 96RM-PN, UMG 509-PRO and UMG 512-PRO.
*2 If the Differential current transformer of the series KBU is in use with the UMG 20CM, the measuring range of the UMG 20CM can be stepped up also higher from 900 mA to 14 A and from 1 to 15 A by integrating a burden, item no. 15.03.086.

Dimension diagrams All dimensions in mm

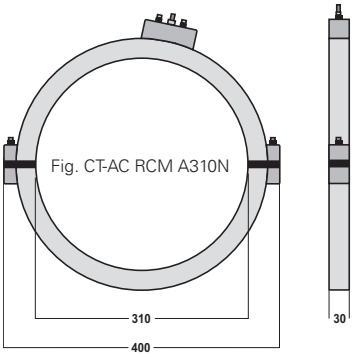


General data	
Insulation voltage	0.72 kV
Frequency	3 kHz
Operating temperature	-10 to +55 °C
Test voltage	3 kV RMS 50 Hz / 1 min.

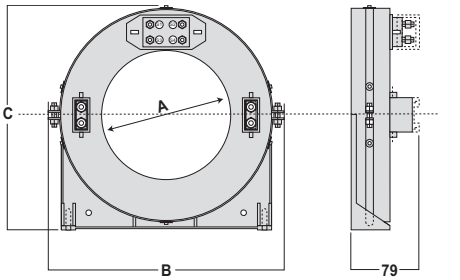
Device overview - Plug-in residual current transformer type A			
Type	**Transformation ratio**	**Max. primary residual current in mA***	**Item no.**
CT-AC RCM A110N	700/1	21000	**15.03.462**
CT-AC RCM A150N	700/1	21000	**15.03.465**
CT-AC RCM A310N	700/1	21000	**15.03.461**

* When using the analogue inputs of the UMG 96RM-E, UMG 96RM-PN, UMG 509 and UMG 512

Dimension diagrams All dimensions in mm



CT-AC RCM A110N/150N



Dimensions - Plug-in residual current transformer type A				
Type	**Dimensions in mm**			**Weight (kg)**
	A	**B**	**C**	
CT-AC RCM A110N	110	235	219	2.35
CT-AC RCM A150N	150	275	259	2.50
CT-AC RCM A310N	310	400	416	3.80

Feedthrough residual current transformer

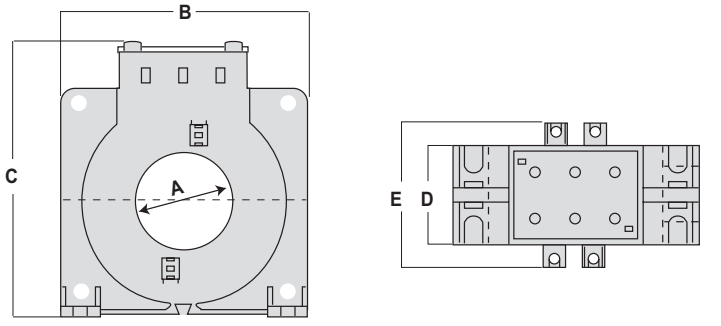
General data	
Insulation voltage	0.72 kV
Frequency	3 kHz
Operating temperature	-10 to +55 °C
Test voltage	3 kV RMS 50 Hz / 1 min.

Device overview – Feedthrough residual current transformer type A

Type	Transformation ratio	Max. primary residual current in mA*	Item no.
CT-AC RCM 35N	700/1	21000	**15.03.458**
CT-AC RCM 80N	700/1	21000	**15.03.459**
CT-AC RCM 110N	700/1	21000	**15.03.463**
CT-AC RCM 140N	700/1	21000	**15.03.460**
CT-AC RCM 210N	700/1	21000	**15.03.464**

* When using the analogue inputs of the UMG 96RM-E, UMG 96RM-PN, UMG 509 and UMG 512

Dimension diagrams All dimensions in mm



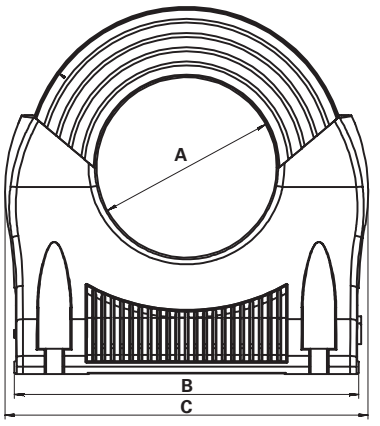
Dimensions – Feedthrough residual current transformer type A

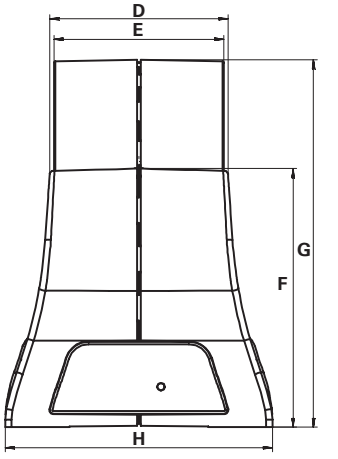
Type	Dimensions in mm					Weight (kg)
	A	B	C	D	E	
CT-AC RCM 35N	35	92	113	36	56	0.25
CT-AC RCM 80N	80	125	160	36	56	0.35
CT-AC RCM 110N	110	165	198	36	56	0.50
CT-AC RCM 140N	140	200	234	36	56	0.70
CT-AC RCM 210N	210	290	323	44	64	1.20

Differential current transformer Type B+

Overview of devices									
Attribute	DC supply voltage	Max. primary residual current in mA	Internal consumption	Dimensions in mm					Item no.
				A	B	C	D	E	
CT-AC/DC type B+ 35 RCM	24 V (21.6 to 26.4 V)	0.3 A	max. 1.5 W	35	106	104	113	69	**15.03.469**
CT-AC/DC type B+ 70 RCM	24 V (21.6 to 26.4 V)	0.3 A	max. 1.5 W	70	141	104	143	69	**15.03.468**
Accessories									
1-phase switched mode power supply devices in the installation housing Prim. 115 – 230 V 50/60 Hz, sec. 24 V DC; 1 A Dimensions in mm (H x W x D): 90.5 x 52 x 62.5; Weight: Approx. 169 g									**16.05.002**

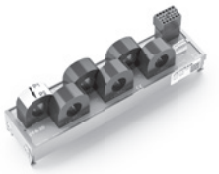
Dimension diagrams All dimensions in mm





Dimensions differential current transformer type B+								
Type	Dimensions in mm							
	A	B	C	D	E	F	G	H
CT-AC/DC Typ B+ 35 RCM	35	99	106	69	66	87	113	104
CT-AC/DC Typ B+ 70 RCM	70	134	141	69	66	100	143	104

6-fold DIN rail current transformer



General data	
Number of measuring channels	6 (measurement transformer integrated)
Measured value acquisition	Parallel, real effective value measurement ("True RMS")
Evaluation	Residual or operating currents (configurable as required)
Rated isolation level	4 kV
Transformer rated voltage	max. 720 V AC
Transformer rated frequency	50 to 60 Hz
Therm. rated short-term current	60 x In / 1 sec.
Therm. Continuous current	100%
Environmental temperature	-10 to +55 °C
Class	1
Protection class	E
Protection class	IP20

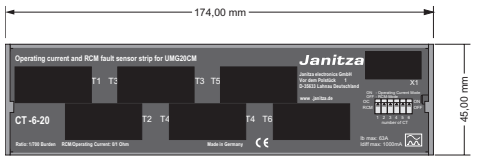
6-fold DIN rail current transformer CT-6-20 (operating and residual current transformer type A)

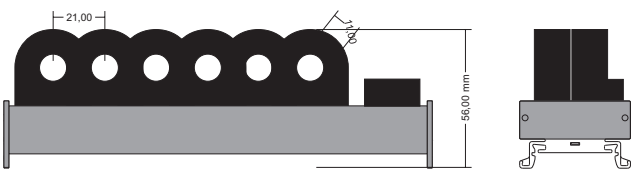
Type	Operating mode*1	Operating current with load in A	Residual current in mA	Number of measuring channels*2	Transformation ratio	Measurement accuracy	Internal transformer diameter in mm	Dimensions in mm (H x W x D)	Weight (kg)	Item no.
CT-6-20	Residual or operating currents	0 to 63	10 to 1,000	6	700/1	1	11	45 x 174 x 56	0.30	**14.01.630**

Accessories	
Ready-made connection cable 1.5 m twisted, screened with connector	**08.02.440**

*1 Pre-configurable as needed via DIP switch *2 Measurement transformer integrated.

Dimension diagrams All dimensions in mm





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Voltage tap-offs

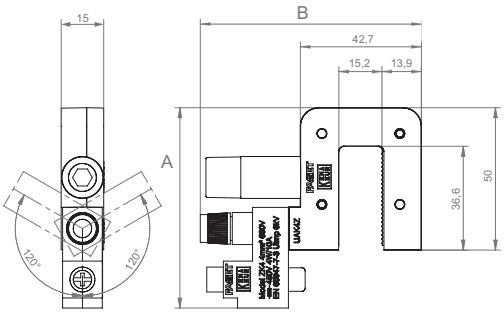
Voltage tap-offs	
Max. operating voltage	690 V
Test voltage / pulse	3 kV / 50 Hz 6 kV
In max.	10 A
Insulation class	E (max. 120°)
Fuse type	5 x 25 mm (with notification), 10 A SIBA DIN 41576-2
Environmental temperature	-5 to +40 °C*[1]
Temperature increase, rail	Max. 75 K*[1]
Primary connection	M8 Allen screw
Allen size	Number 6
Max. rail thickness	4 – 15 mm
Housing	Polyamide (PA6.6)
Terminal material	Nickel plated brass

*[1] Max. temperature of the primary rail 120 °C (total of environmental temperature and temperature increase of the rail)

Device overview - Voltage tap-off								
Type	Colour	Description	Back-up fuse (A)	Cross-section connection measurement conductor (mm²)	Dimensions in mm (H x W x D)		Weight (kg)	Item no.
					A	B		
ZK4S	Black	With fuse	6.3	1.5 – 4	71	78	0.2	**10.11.525**
ZK4B	Blue	Without fuse	-	0 – 16	58.2	76	0.1	**10.11.526**
Accessories								
1 x voltage tap-off set	3 x ZK4S (item no. 10.11.525); 1 x ZK4B (item no. 10.11.526)						0.7	**10.11.527**
ZK4R	Insulated tool for fastening the tap-off; 1,000 V, EN / IEC 60900						0.9	**10.11.528**

Dimension diagrams All dimensions in mm

ZK4S-ZK4B



Voltage tap-offs

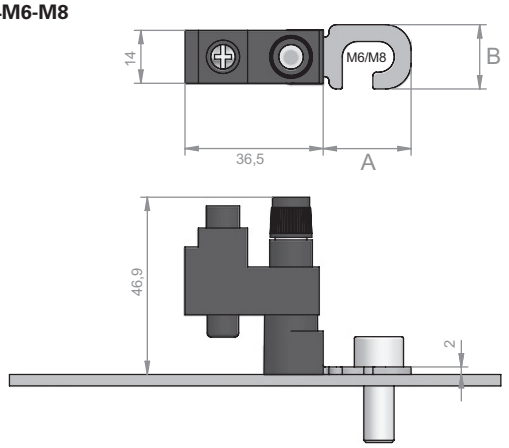
Environmental conditions	
Installation location	Only in indoor areas (suitable for copper rails)
Temperature range for use	-10 to +55 °C
Relative humidity	5 to 85 % (no thawing)
Protection class	IP20 (basic insulation)
Application conditions	
Standard	IEC 60947-7-3
Umax	400 V ~
Test voltage	3 kV / 50 Hz
Surge voltage	6 kV 1.2 / 50 µs
Imax	2 A
Voltage drop	< 500 m V ~
Fuse	2 A, 450 V, F, 70 kA, 5 x 25 mm, ceramic (SIBA Part.no. 7008913.2)
Torque	max. 2.0 Nm

Device overview – Voltage tap-off

Type	Colour	Primary connection (mm)	Back-up fuse (A)	Cross-section connection measurement conductor (mm²)	Dimensions in mm (H x W x D)		Weight (kg)	Item no.
					A	B		
ZK4/M6	Black	6	2	1.5 – 4	18.8	13.5	0.03	**10.11.534**
ZK4/M8	Black	8	2	1.5 – 4	23.2	17	0.03	**10.11.535**

Dimension diagrams All dimensions in mm

ZK4M6-M8



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Current transformer terminal block

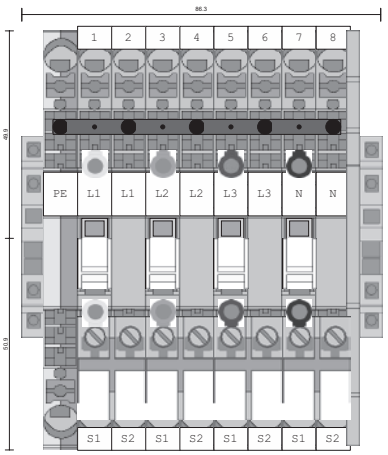
General data	
DIN mounting rail installation	35 mm DIN rail
Connection max.	4 transformers
4 pairs, 2-conductor, disconnecting and measurement terminals with contact protected test sockets	
Test connector (ø)	4 mm (with switching bridge)
Rated voltage EN	500 V
Measurement surge voltage	6 kV
Rated current	30 A
Pollution degree	3
Connection design	CAGE CLAMP® S
Type of conductor	Single or fine-stranded
Fine stranded diameter	0.5 – 6 mm²
"f" + "e" diameter	0.5 to 10 mm²
"f" diameter with AEH	0.5 to 6 mm²
Stripping length	13 – 15 mm

Each terminal is labelled. The terminal position S2 on each transformer is connected to ground potential via a fixed, pre-installed bridge. Each pair of disconnecting and measurement terminals is equipped with a yellow switch lock for the disconnect lever. 2 disconnect levers are coupled together via an interlocking cap.

Device overview – Current transformer terminal block

Type	Nominal current (A)	Rated voltage EN (V)	Measurement voltage surge (kV)	Type of conductor	Diameter (mm²)	Dimensions in mm (H x W x D)	Weight (kg)	Item no.
Current transformer terminal strip	30	500	6	Single or fine-stranded	0.5 – 6	190 x 85 x 65	0.3	**15.07.001**

Dimension diagrams All dimensions in mm



Smart Energy & Power Quality Solutions

Janitza electronics GmbH
Vor dem Polstück 6 | 35633 Lahnau
Germany

Phone: +49 6441 9642-0
Fax: +49 6441 9642-30
info@janitza.com | www.janitza.com

Sales partner

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