

K-No.: 24765  
 K-Nr.:

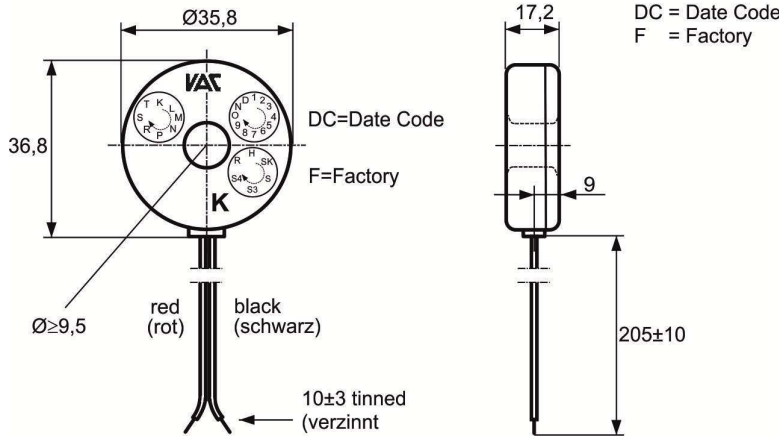
Current Transformer / Wechselstromwandler

 Date: 11.02.2020  
 Datum:

 Customer Standard Type / Typenelement  
 Kunde:

 Customers part no.:  
 Kd. Sach Nr.:

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 Mechanical outline General tolerances DIN ISO 2768-c  
 Maßbild (mm): Freimaßtoleranz

 Connections:  
 Anschlüsse:

 21,22  
 Litze 2 x 0,14 mm<sup>2</sup>

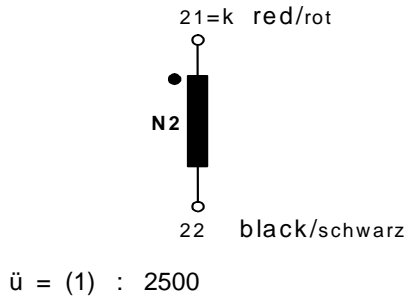
 Marking  
 Beschriftung:



 "Contains shielding against external magnetic fields"  
 "Mit Abschirmung gegen externe Magnetfelder"

**Schematic diagram**

Anschlussschema:


 Operational data/characteristic data (nominal values):  
 Betriebsdaten/Charakteristische Daten (Richtwerte):

 $I_{max, rms} = 100 \text{ A}$  (acc. to IEC 62053-21)

 $I_{peak, 0p} = 100 \text{ A}$  (acc. to IEC 62053-21)

 $f = 50 \text{ Hz}$ 
 $R_B = 7,5 \Omega$ 
 $R_{Cu2} = 58 \Omega$ 

Umgebungstemperatur/ambient temperature: -40°C ..+70°C

Lagertemperatur/storage temperature: -40°C...+85°C

 Prüfung: (V: 100%-Test; AQL...: DIN ISO 2859-Teil1)  
 Inspection

- (AQL 1/S4) M3014:  $U_{p,eff} = 2,5 \text{ kV}$ , 2 s, N2 vs/gegen Current winding ( $\varnothing 7,5\text{mm}$ )/Durchsteckdorn
- (AQL 0,25) M3011/1  $L_2 = 1,97 \text{ H} \pm 17\%$ ,  $f = 50 \text{ Hz}$ ,  $U_{AC,eff} = 1,2 \text{ V}$
- (V) M3011/6 Special measuring (Current transformer measuring instrument N4):  
 Sonderprüfung (Stromtrafoprüfgerät N4):  
 Polarity / Turns ratio: Tolerance (+/- 25 turns)  
 Polarität / Übersetzungsverhältnis: Toleranz  $\pm 1\%$  ( $\pm 25 \text{ Wdg.}$ )
- (AQL 1/S4) M3200: Mechanische Prüfung  
 Mechanical test

 Messungen nach Temperaturangleich der Prüflinge an Raumtemperatur  
 Measurements after temperature balance of the test samples at room temperature

**Weitere Vorschriften:**

Applicable documents:

| Datum      | Name | Index | Änderung                                                                              |
|------------|------|-------|---------------------------------------------------------------------------------------|
| 11.02.2020 | Leh. | 82    | Mechanical outline changed (wires length from 185 +/-10mm to 205 +/-10mm). CN-19-237  |
| 17.07.14   | HL   | 81    | Typo: $R_{Cu2}$ changed from 55 $\Omega$ $\rightarrow$ 58 $\Omega$ . Lapidary change. |

|                               |                        |                      |                         |
|-------------------------------|------------------------|----------------------|-------------------------|
| Hrsg.: R&D-PD NPI D<br>editor | Bearb.: HL<br>designer | MC-PM: Leh.<br>check | freig.: Pr.<br>released |
|-------------------------------|------------------------|----------------------|-------------------------|

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**Remark:**  
 Bemerkung

- 1) This product is protected by one or more patents, including /  
 Dieses Produkt ist durch eines oder mehrere Patente geschützt, u.a  
 US 6663815 EP 1105893; US 6563411 EP 1114429
- 2) The resistance to alcohols and similar detergents of the component is restricted.  
 When performing washing procedures own tests are recommended.  
 Das Bauelement besitzt nur eine eingeschränkte Beständigkeit gegen Alkohole und ähnliche Reinigungsmittel.  
 Bei Waschprozessen empfehlen wir die Durchführung von eigenen Tests.
- 3) The customer has to check and to ensure the mechanical properties of the component and the behaviour of the encapsulation, especially at the inner diameter by appropriate temperature tests.  
 Die mechanischen Eigenschaften des Bauelements und das Verhalten der Umhüllmasse, speziell am Innendurchmesser, sind vom Kunden durch entsprechende Temperaturtests zu überprüfen und sicherzustellen.
- 4) This product has been designed for use in electricity meters that have to meet the requirements of IEC 62053-21 and EN 50470-3. By using this product, the following supplementary conditions ("realistic load conditions") can easily be met:
  - a) Supplementary condition to IEC 62053-21 Table 8

| Influence quantity                                | Value of current for direct connected meters | Power Factor       | Limits of variation in percentage error for meters of class |     |
|---------------------------------------------------|----------------------------------------------|--------------------|-------------------------------------------------------------|-----|
|                                                   |                                              |                    | 1                                                           | 2   |
| DC and even harmonics in the a.c. current circuit | $\frac{I_{max}}{\sqrt{2}}$                   | 1<br>0.5 inductive | 3.0                                                         | 6.0 |

- b) Supplementary condition to EN50470-3 Table 9

| Disturbance                                       | Value of current for direct connected meters | Power Factor       | Critical change value for meters of class index, % |       |       |
|---------------------------------------------------|----------------------------------------------|--------------------|----------------------------------------------------|-------|-------|
|                                                   |                                              |                    | A                                                  | B     | C     |
| DC and even harmonics in the a.c. current circuit | $\frac{I_{max}}{\sqrt{2}}$                   | 1<br>0.5 inductive | ± 6.0                                              | ± 3.0 | ± 1.5 |

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 editor

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