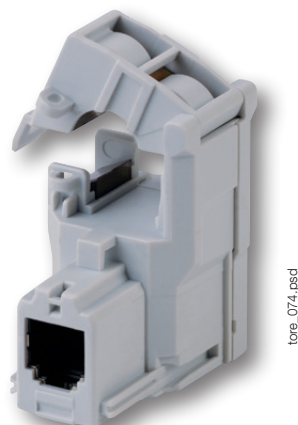


# TR/iTR *sensors*

## Split-core AC current sensors

used with DIRIS Digiware, DIRIS A-40 and DIRIS B



TR split-core sensor

### The solution for

- > Data centres
- > Healthcare
- > Energy
- > Buildings



### Strong points

- > Smart sensors
- > Accurate
- > VirtualMonitor technology
- > AutoCorrect technology

### Integrated technologies<sup>(1)</sup>



PreciSense



AutoCorrect



VirtualMonitor

<sup>(1)</sup> AutoCorrect and VirtualMonitor are only available with iTR sensors.

For further information, please visit our website [www.socomec.com](http://www.socomec.com)

### Conformity to standards

- > IEC 61557-12



- > ISO 14025



- > UL



### Create your project

- > Find the best DIRIS Digiware configuration:  
[www.meter-selector.com](http://www.meter-selector.com)

**METER SELECTOR**  
DIGITAL TOOL AVAILABLE

### Function

The **split-core current sensors** in the **TR** and **iTR** ranges enable the current on an electrical installation to be measured. Used with a PMD from the DIRIS Digiware, DIRIS A-40, DIRIS B-10 or B-30 range, they make it possible to perform accurate measurements between 25 and 600 A, and provide access to an overall accuracy class. The RJ12 connection system makes it easier to connect it all up, and the integrated intelligence prevents any configuration errors. The sensors in the iTR range revolutionise the world of measurement and provide access to VirtualMonitor equipment monitoring technologies and to AutoCorrect automatic configuration.

### Advantages of the TR and iTR ranges

#### Smart sensors

- Sensors with an extended operational range.
- Automatic detection of rating.
- Secure disconnection on load.
- Quick connection via RJ12 and identification of cable by colour code.

#### Accurate

Measurement accuracy of Class 0.5 according to standard IEC 61557-12 guaranteed for the overall measurement chain from 2 to 120% of nominal current.

### Exclusive advantages of the iTR range

#### VirtualMonitor technology

VirtualMonitor provides monitoring of protection devices:

- Across the entire electrical installation.
- Remotely and in real time.
- Without additional hardware or wiring.

#### AutoCorrect technology

AutoCorrect guarantees that your measurement system is working correctly:

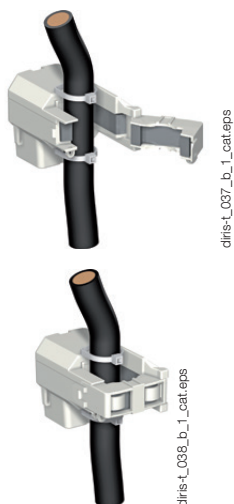
- Automatic wiring control (voltage/current/phase association).
- Correction of errors.

### General characteristics

- - Range 25 to 600 A.
- Used with DIRIS Digiware, DIRIS A-40 and DIRIS B.
- PreciSense technology: Overall accuracy class in accordance with the IEC 61557-12 standard.
- Easy installation and configuration.

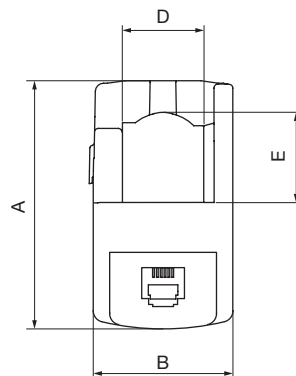
## Mounting

Cable mounting

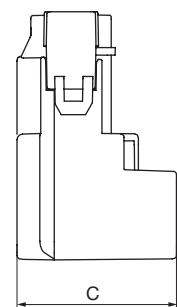
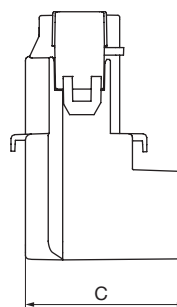


## Dimensions

TR-10 / TR-14 / TR-21 / TR-32



iTR/TR-10



| Model     | Nominal current range (A) | Real range covered (A) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Ø (mm) |
|-----------|---------------------------|------------------------|--------|--------|--------|--------|--------|--------|
| TR/iTR-10 | 25 ... 63                 | 0.5 ... 75.6           | 44     | 26     | 28     | -      | -      | 10     |
| TR/iTR-14 | 40 ... 160                | 0.8 ... 192            | 67     | 29     | 28     | 14     | 15     | 14     |
| TR/iTR-21 | 63 ... 250                | 1.26 ... 300           | 65     | 37     | 43     | 21     | 23     | 21     |
| TR/iTR-32 | 160 ... 600               | 3.2 ... 720            | 86     | 53     | 47     | 32     | 33     | 32     |

## Technical characteristics

| Model                                                | TR-10                                            | iTR-10    | TR-14       | iTR-14    | TR-21        | iTR-21    | TR-32         | iTR-32    |
|------------------------------------------------------|--------------------------------------------------|-----------|-------------|-----------|--------------|-----------|---------------|-----------|
| Nominal current range I <sub>n</sub> (A)             | 25 ... 63                                        |           | 40 ... 160  |           | 63 ... 250   |           | 160 ... 600   |           |
| Real range covered (A)                               | 0.5 ... 75.6                                     |           | 0.8 ... 192 |           | 1.26 ... 300 |           | 3.2 ... 720   |           |
| Max. current (A)                                     | 75.6                                             |           | 192         |           | 300          |           | 720           |           |
| Weight (g)                                           | 74                                               |           | 117         |           | 211          |           | 311           |           |
| Max. voltage (V)                                     | 300 V P/N bare cable   600 V P/N insulated cable |           |             |           |              |           |               |           |
| Rated withstand voltage                              | 3 kV                                             |           |             |           |              |           |               |           |
| Frequency                                            | 50/60 Hz                                         |           |             |           |              |           |               |           |
| Intermittent overload                                | 10 x I <sub>n</sub> for 1 s                      |           |             |           |              |           |               |           |
| Measurement category                                 | CAT III                                          |           |             |           |              |           |               |           |
| Overall class used with Diris Digiware/A-40/B-10/B30 | class 1                                          | class 0.5 | class 1     | class 0.5 | class 1      | class 0.5 | class 1       | class 0.5 |
| Ingress Protection rating                            | IP20 / IK07                                      |           |             |           |              |           |               |           |
| Operating temperature                                | -10 ... +70 °C                                   |           |             |           |              |           | -10°...+55 °C |           |
| Storage temperature                                  | -25 ... +85 °C                                   |           |             |           |              |           |               |           |
| Relative humidity                                    | 95% RH condensation-free                         |           |             |           |              |           |               |           |
| Altitude                                             | < 2000 m                                         |           |             |           |              |           |               |           |
| Connection                                           | Socomec RJ12 cable                               |           |             |           |              |           |               |           |

## References

| Model | Nominal current range (A) | Real range covered (A) | Ø (mm) | Reference |
|-------|---------------------------|------------------------|--------|-----------|
| TR-10 | 25 ... 63                 | 0.5 ... 75             | 10     | 4829 0555 |
| TR-14 | 40 ... 160                | 0.8 ... 192            | 14     | 4829 0556 |
| TR-21 | 63 ... 250                | 1.26 ... 300           | 21     | 4829 0557 |
| TR-32 | 160 ... 600               | 3.2 ... 720            | 32     | 4829 0558 |

| Model  | Nominal current range (A) | Real range covered (A) | Ø (mm) | Reference |
|--------|---------------------------|------------------------|--------|-----------|
| iTR-10 | 25 ... 63                 | 0.5 ... 75             | 10     | 4829 0655 |
| iTR-14 | 40 ... 160                | 0.8 ... 192            | 14     | 4829 0656 |
| iTR-21 | 63 ... 250                | 1.26 ... 300           | 21     | 4829 0657 |
| iTR-32 | 160 ... 600               | 3.2 ... 720            | 32     | 4829 0658 |

| RJ12 connection cables | Cable length (m) |           |           |           |           |           |           |           |           |           |                            |
|------------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------|
|                        | 0.1              | 0.2       | 0.3       | 0.5       | 1         | 2         | 3         | 5         | 7         | 10        | 50 m reel + 100 connectors |
| Number of cables       | Reference        | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference                  |
| 1                      | -                | -         | -         | -         | 4829 0611 | 4829 0612 | 4829 0613 | 4829 0602 | -         | 4829 0603 | 4829 0601                  |
| 3                      | 4829 0580        | 4829 0581 | 4829 0582 | 4829 0595 | 4829 0583 | 4829 0584 | 4829 0606 | 4829 0607 | 4829 0608 | 4829 0609 | -                          |
| 4                      | -                | -         | -         | 4829 0596 | 4829 0588 | 4829 0589 | -         | -         | -         | -         | -                          |
| 6                      | 4829 0590        | 4829 0591 | 4829 0592 | 4829 0597 | 4829 0593 | 4829 0594 | -         | -         | -         | -         | -                          |