

DIRIS A & DIRIS B

Power Metering and Monitoring Devices



When **energy** matters

 **socomec**
Innovative Power Solutions

DIRIS A & DIRIS B

A comprehensive range for single-point Metering



Choose

Application

New installations

Smart sensors
match the pitch of
protective devices



Existing installations

Split-core or
Rogowski coil
smart sensors

Mounting



DIN rail



Panel



Remote display

and Monitoring



Monitor and optimise your energy consumptions

Class
0.5

Multi-tariff

Embedded
Webserver

MID

Guarantee the availability of your electrical installation and the safety of your assets

Monitor the electrical installation

- Tracking of instantaneous parameters (U, I, P, Q, S, PF).
- Tracking of minimum and maximum values.
- Tracking of the unbalance level.
- Raise an alarm if a threshold is exceeded.

Check the power quality

- Monitor the level of harmonic pollution.
- Detection of voltage dips and interruptions.
- Detection of voltage swells.
- Raise an alarm if a threshold is exceeded.

Manage the loads

- Record operating hours.
- Monitor load status and number of operations.
- Predictive power demand calculation and load shedding.
- Raise an alarm if a threshold is exceeded.

Communication

Choose the **communication protocol**



Or push **your data to the cloud**



Modularity



Choose an **all-in-one product**

Or choose an **upgradable solution with modules**



APPLI 812 A

DIRIS 992 A GB

DIRIS A-40

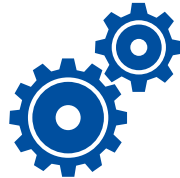
The reference reinvented

The simplest, quickest and most efficient implementation



Simple integration

The three current sensor technologies, solid-core, split-core and flexible (TE, TF & TR/iTR) allow to implement a monitoring solution on new and existing installations.



Assisted configuration

The configuration wizard guides the user step by step, detects and corrects configuration errors cutting the commissioning time in half and guaranteeing a reliable monitoring system.



Connected to the Cloud

The range comprises IoT-ready connected products that can automatically export data for remote processing, without any limits on time and storage.



CGUW 513 A

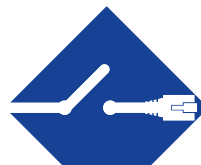
Discover the future of measurement



PreciSense

Be guaranteed of the accuracy of your measurements

- For the global measurement chain.
- For reliable measurements.
- For relevant corrective actions.



VirtualMonitor

Access the monitoring of your protective devices*

- On your entire electrical installation.
- Remotely and in real-time.
- Without additional hardware or wiring.



AutoCorrect

Be guaranteed your measurement system is working correctly*

- Automatic wiring control.
- Correction of errors.
- Feature available off-load.

* available with DIRIS A-40 and iTR smart sensors.

Remote monitoring of your electrical installation

WEBVIEW-S solution embedded in the DIRIS A-40



Metering

- Measurement of active, reactive and apparent energies.
- Historical record of measurements.
- Graphical display on a monthly, weekly, daily or hourly basis.
- Automatic export of data via FTPS in CSV format.

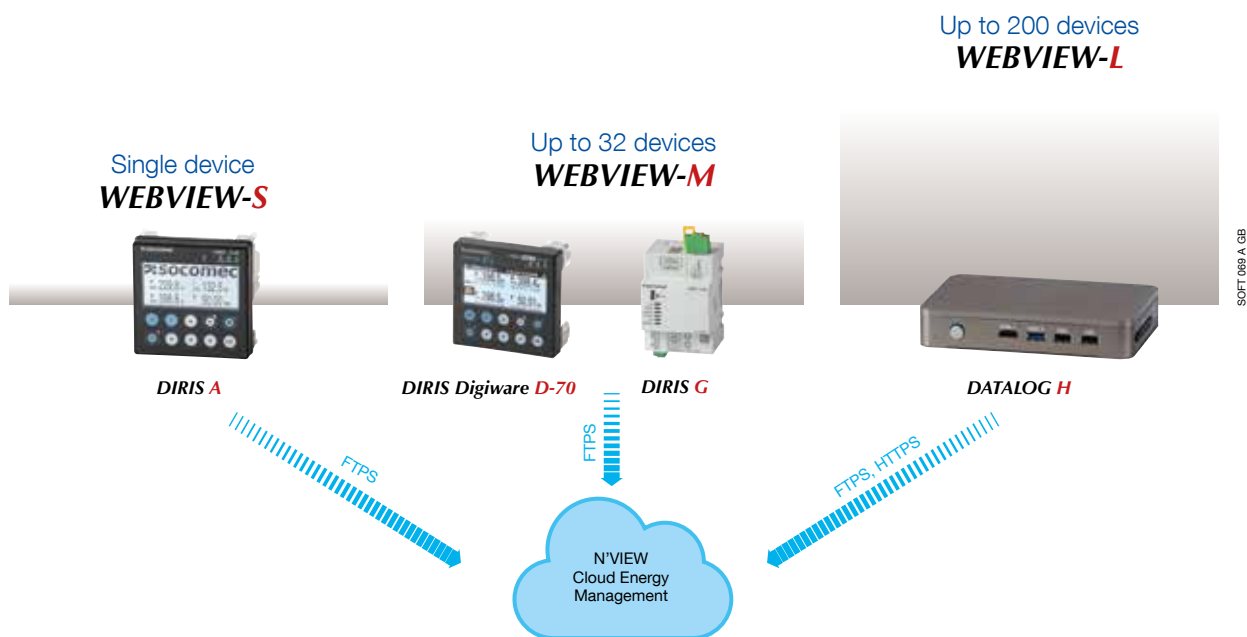
Alarming

- Display of alarms.
- History of alarms.

Monitoring

- Real-time measurement of electrical values.
- View data as graphs or tables.
- Power quality analysis of the utility supply and of loads.

A range of IoT-ready connected products



Selection guide



| | Functions | DIRIS A-10 | DIRIS A-14 DIN |
|--|---|------------|----------------|
| General characteristics | Remote display | | |
| | Number of loads | 1 | 1 |
| | Mounting | DIN | DIN or 96 x 96 |
| | Power supply | AC | AC |
| | All In One | • | • |
| | Optional modules | | |
| | Ethernet (Modbus TCP/Bacnet IP) | o/- | o/- |
| | RS485 (Modbus/Bacnet MSTP) | •/- | •/- |
| | Profibus DPV1 | | |
| | Websserver/File export | o/- | o/- |
| Manage energy consumptions | 4-quadrant energy metering | • | • |
| | Load curves (local memory) | | • |
| | Rebilling of energy (MID approved) | | • |
| | Multi-tariff management | 2 | 4 |
| Monitor the electrical installation | Instantaneous, average, min and max values | • | • |
| | Voltage unbalance measurement | | |
| | Neutral current (measured/calculated) | -/• | -/• |
| Check the power quality | Harmonic analysis (THD/Individual) | •/- | •/- |
| | Dip and swell detection | | |
| | Overcurrent detection | | |
| Manage the loads | Operating hours | • | |
| | Number of operations (info/alarm) | | |
| | Protective device monitoring (on/off/tripped) | • | |
| | Predictive power analysis and load shedding | | |

•: integrated in the product.

o: optional via DIRIS-G or modules.

High-performance smart sensors



Smart sensors

- Current smart sensors with additional functionality.
- Automatic rating configuration.
- Safe disconnection on-load.
- Fast connection by RJ12 and identification of cables by colour coding.



Compact





- Uniquely compact on the market
- Linear assembly.
- Staggered assembly.
- Match the pitch of protective devices.





PreciSense

Guaranteed accuracy in accordance with the IEC 61557-12 standard: class 0.5 for the global measurement chain from 2 to 120% of In.

| | TE solid-core sensors | Rated currents (A) | | | | | | | | | | Real range covered (A) | Pitch (mm) | Aperture (mm) | Dimensions (mm) | | | |
|--|-----------------------|--------------------|----|----|----|----|-----|-----|-----|-----|-----|------------------------|------------|---------------|-----------------|------|-------------|-----------------|
| | | 5 | 20 | 25 | 40 | 63 | 160 | 250 | 400 | 600 | 630 | | | | | 1000 | 2000 | |
| | TE-90 | | | | | | | | | | | | | | 12 ... 2400 | 90 | 64 x 64 | 126 x 90 x 24.6 |
| | TE-55 | | | | | | | | | | | | | | 8 ... 1200 | 55 | 41 x 41 | 100 x 55 x 32.5 |
| | TE-45 | | | | | | | | | | | | | | 3.2 ... 756 | 45 | 31 x 31 | 86 x 45 x 32.5 |
| | TE-35 | | | | | | | | | | | | | | 1.26 ... 300 | 35 | 21 x 21 | 71 x 35 x 32.5 |
| | TE-25 | | | | | | | | | | | | | | 0.8 ... 192 | 25 | 13.5 x 13.5 | 65 x 25 x 32.5 |
| | TE-18 | | | | | | | | | | | | | | 0.5 ... 75 | 18 | Ø 8.6 | 45 x 28 x 20 |
| | TE-18 | | | | | | | | | | | | | | 0.1 ... 24 | 18 | Ø 8.6 | 45 x 28 x 20 |

| | | | | | | | |
|--|---|---|---|--|---|---|---|
|  |  |  |  |  |  |  |  |
| DIRIS A-14 96 x 96 | DIRIS A-20 | DIRIS A-30 | DIRIS B-10 | DIRIS B-30 | DIRIS A-40 Modbus | DIRIS A-40 Modbus + Profibus | DIRIS A-40 Modbus + Ethernet |
| CURRENT TRANSFORMERS | | | SMART SENSORS | | | | |
| 1 | 1 | 1 | • | • | 1 | | |
| DIN or 96 x 96 | 96 x 96 | 96 x 96 | 1 to 4 | 1 to 4 | 96 x 96 | | |
| AC | AC | AC/DC | DIN | DIN | AC | | |
| • | • | • | • | • | • | | |
| o/- | o/- | o/- | •/o | •/o | -/- | -/- | •/• |
| •/- | •/- | o/- | •/o | •/o | •/- | •/- | •/- |
| o/- | o/- | o | o | o | - | - | - |
| | 3/- | 6/4 | o/- | o/- | o/o | o/o | •/• |
| | 1/- | 6/4 | | 2/2 | 3/- | | |
| | | | | 2/2 | 2/- | | |
| • | • | • | • | • | • | | |
| • | | o | | • | • | | |
| • | | | | | | | |
| 4 | | | 8 | 8 | 4 | | |
| • | • | • | • | • | • | | |
| | | • | • | • | • | | |
| -/• | -/• | -/• | •/• | •/• | -/• | | |
| •/- | •/- | •/• | •/- | •/• | •/• | | |
| | | | | • | • | | |
| | | | | • | • | | |
| | | | | • | • | | |
| | • | • | • | • | • | | |
| | •/- | •/- | •/- | •/• | •/• | | |
| | • | • | • | • | • | | |
| | | • | • | • | • | | |

|  | TR / iTR split-core sensors | Rated currents (A) | | | | | | Real range covered (A) | Aperture (mm) | Dimensions (mm) |
|---|-----------------------------|--------------------|----|----|-----|-----|------------|------------------------|---------------|-----------------|
| | | 25 | 40 | 63 | 160 | 250 | 600 | | | |
| | TR/iTR-32 | | | | ←→ | | | 3.2 ... 720 | Ø 32 | 53 x 86 x 47 |
| | TR/iTR-21 | | | ←→ | | | | 1.26 ... 300 | Ø 21 | 37 x 65 x 43 |
| | TR/iTR-14 | | ←→ | | | | | 0.8 ... 192 | Ø 14 | 29 x 67 x 28 |
| TR/iTR-10 | ←→ | | | | | | 0.5 ... 75 | Ø 10 | 26 x 44 x 28 | |

|  | TF flexible sensors | Rated currents (A) | | | | | | Real range covered (A) | Aperture (mm) |
|---|---------------------|--------------------|-----|-----|------|------|-----------|------------------------|---------------|
| | | 150 | 400 | 600 | 1600 | 2000 | 4000 | | |
| | TF-600 | | | | ←→ | | | 32 ... 7200 | Ø 600 |
| | TF-300 | | | | ←→ | | | 32 ... 7200 | Ø 300 |
| | TF-200 | | | ←→ | | | | 12 ... 4800 | Ø 200 |
| | TF-120 | | ←→ | | | | | 8 ... 2400 | Ø 120 |
| | TF-80 | ←→ | | | | | | 3 ... 720 | Ø 80 |
| TF-55 | ←→ | | | | | | 3 ... 720 | Ø 55 | |

Socomec: our innovations supporting your energy performance

1 independent manufacturer

3,600 employees
worldwide

10 % of sales revenue
dedicated to R&D

400 experts
dedicated to service provision

Your power management expert



POWER
SWITCHING



POWER
MONITORING



POWER
CONVERSION



ENERGY
STORAGE



EXPERT
SERVICES

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- Control, command of LV facilities
- Safety of persons and assets
- Measurement of electrical parameters
- Energy management
- Energy quality
- Energy availability
- Energy storage
- Prevention and repairs
- Measurement and analysis
- Optimisation
- Consultancy, commissioning and training

A worldwide presence

12 production sites

- France (x3)
- Italy (x2)
- Tunisia
- India
- China (x2)
- USA (x3)

28 subsidiaries and commercial locations

- Algeria • Australia • Belgium • China • Canada
- Dubai (United Arab Emirates) • France • Germany
- India • Indonesia • Italy • Ivory Coast • Netherlands
- Poland • Portugal • Romania • Serbia • Singapore
- Slovenia • South Africa • Spain • Switzerland
- Thailand • Tunisia • Turkey • UK • USA

80 countries

where our brand is distributed

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