

# Multifunction power monitoring devices

## *DIRIS B*



# Monitor

your remote measurement points

DIRIS B meters communicate by radio frequency via LoRaWAN communication protocol or RS485 wired via MODBUS RTU. Measurement and metering data can be displayed on a DIRIS D-30 remote screen or centralised and made available on an Ethernet network using a DIRIS Digiware D or M communication gateway.

## Advantages



### Flexible

#### Multi-circuit

Ability to monitor several circuits thanks to four independent current inputs.

For example, it allows to measure or monitor:

- 1 three-phase load + 1 single-phase load,
- 4 single-phase loads.

#### Compact

Modular, 3 modules device.



### Connected

- Radio-Frequency LoRaWAN protocol.
- Multi-protocol: Modbus, BACnet, PROFIBUS.
- Remote DIRIS D-30 screen for displaying measurement and metering data.



### Accurate

#### Accuracy of measurements

**guaranteed** according to IEC standard 61557-12:

- Class 0.5 from 2 % to 120 % of rated current for the global measurement chain (associated with TE / TF current sensors).
- Class 0.2 for the meter alone.



### Plug & Play

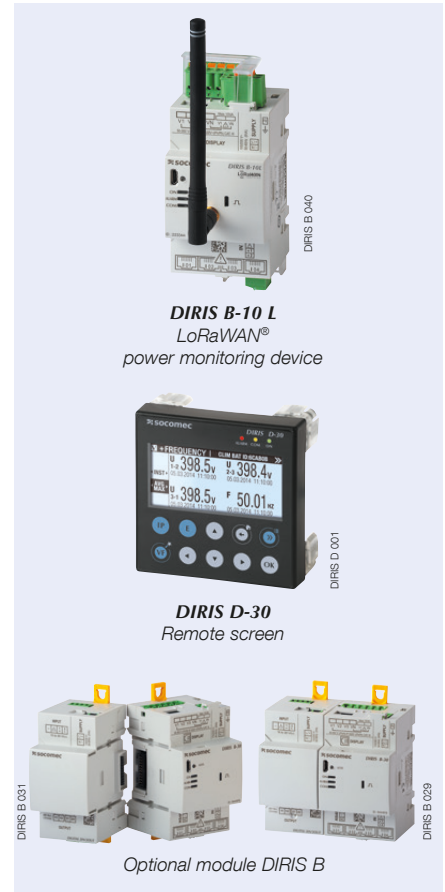
#### Rapid & reliable connection (RJ12) of current sensors

- Automatic detection of ratings and correction of current flow direction.
- Prevents wiring errors, allows disconnection of the current sensor secondary under load.

#### Auto-configuration

Automatic detection of parameters:

- Network type.
- Load type.
- Device addressing.
- Current sensor ratings.



**DIRIS B-10 L**  
LoRaWAN®  
power monitoring device

**DIRIS D-30**  
Remote screen

Optional module DIRIS B

## Selection guide

	DIRIS B-10 RS485	DIRIS B-10 L RF	DIRIS B-30 RS485
<b>Multi-measurement</b>			
Currents, voltages (ph/ph and ph/n), active/reactive/apparent powers, power factor, frequency	•	•	•
Voltage / current unbalance	•	•	•
Power factor, cos Phi, tan Phi	•	•	•
<b>Metering</b>			
kWh (+/-), kvarh (+/-), kvah	•	•	•
Multi-tariff	•	•	•
Load curves			•
<b>Quality analysis</b>			
THDV, THDU, THDI	•	•	•
Individual harmonics V, U & I (up to rank 63)			•
Voltage dips, cut-offs and surges (EN50160)			•
Overcurrents			•
<b>Alarms</b>			•
<b>Communication</b>			
RS485 Modbus	•	•	•
Radio-frequency 863-870 MHz LoRaWAN		•	
2 inputs (status/pulse)	•	•	•
References	4829 0010	4829 0900	4829 0000

OPTIONAL MODULES <sup>(1)</sup>	
2 inputs/2 outputs, digital	4829 0030
2 inputs/2 outputs, analogue, 4-20 mA	4829 0031
3 temperature inputs, PT100/PT1000	4829 0032
RS485 Modbus esclave interface	4829 0033
PROFIBUS communication	4829 0034

DISPLAY	
DIRIS D-30 single-point display	4829 0200

(1) Up to 4 optional modules per meter.

# Associated current sensors

## TE, TR and TF

A rapid RJ12 connection makes wiring easy and reliable. The accuracy of the global measurement chain is guaranteed according to standard IEC 61557-12:


- class 0.5 with TE or TF current sensors,
- class 1 with TR current sensors.



RJ12 cables with fail-safe mechanisms are available ; refer to the relevant pages of the catalogue.


### TE Solid current sensors

Suitable for new installations - Match the pitch of protective devices.

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


### TR Split-core current sensors

Suitable for existing installations.

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 (Rogowski) current sensors

Suitable for existing installations with space restrictions or with high-intensity currents.

TF flexible sensors	Rated currents (A)							Real range covered (A)	Aperture (mm)
	100	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

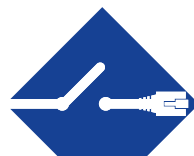
Groundbreaking technologies for greater simplicity and performance\*



### PreciSense

Best-in-class accuracy

- For the global measurement chain.
- Even at low load current.



### VirtualMonitor

Smart monitoring of your protective devices

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



### AutoCorrect

Guaranteed reliability

- Automatic detection of wiring errors.
- Remote software correction.
- Feature available off-load.

\* Only available with DIRIS Digiware AC.

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D'ÉNERGIE



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## Le spécialiste d'applications critiques

- Contrôle, commande des installations électriques BT.
- Sécurité des personnes et des biens.
- Mesure des paramètres électriques.
- Gestion de l'énergie.
- Qualité de l'énergie.
- Disponibilité de l'énergie.
- Stockage de l'énergie.
- Prévention et intervention.
- Mesure et analyse.
- Optimisation.
- Conseil, déploiement et formation.

## Une présence mondiale

**12** sites industriels

- France (x3)
- Italie (x2)
- Tunisie
- Inde
- Chine (x2)
- USA (x2)
- Canada

**30** filiales et implantations commerciales

- Afrique du Sud • Algérie • Allemagne • Australie
- Autriche • Belgique • Canada • Chine • Côte d'Ivoire
- Dubaï (Emirats Arabes Unis) • Espagne • France • Inde
- Indonésie • Italie • Pays-Bas • Pologne • Portugal
- Roumanie • Royaume-Uni • Serbie • Singapour • Slovénie
- Suède • Suisse • Thaïlande • Tunisie • Turquie • USA

**80** pays

où la marque est distribuée



## SIÈGE SOCIAL

### GROUPE SOCOMEC

SAS SOCOMEC au capital de 10 582 640 €  
R.C.S. Strasbourg B 548 500 149  
B.P. 60010 - 1, rue de Westhouse - F-67235 Benfeld Cedex  
Tél. 03 88 57 41 41 - Fax 03 88 57 78 78  
info.scp.isd@socomec.com

## VOTRE CONTACT

[www.socomec.com](http://www.socomec.com)



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