



# DIRIS B

Multifunction power monitoring devices



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**socomec**  
Innovative Power Solutions

# Monitor your remote measurement points

DIRIS B meters communicate via RS485 Modbus and offer several communication protocols. Measurement and metering data can be displayed on a DIRIS D-30 remote screen or centralized and made available on an Ethernet network using a DIRIS-G 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

- Cabled (RS485).
- Multi-protocol: Modbus.
- Remote DIRIS D-30 screen for displaying measurement and metering data.
- Linked to a DIRIS G-30/50 gateway for centralization and communication of data via RS485 to Ethernet.



### Accurate

#### High accuracy of measurements

- Class 0.2 according to ANSI C12.20 for the meter alone.
- Class 0.5 according to IEC 61557-12 from 2% to 120% of rated current range for the full measurement chain (meters associated with TE/TF current sensors).



### 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  
RS485

DIRIS B 009 A



DIRIS D-30  
Remote screen

DIRIS D 001 A

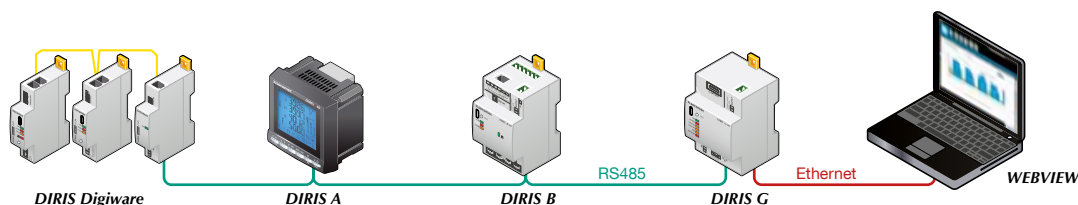


Optional module



DIRIS B

## System



DIRIS-B 014 C US

# 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-18		TE-25	TE-35	TE-45	TE-55	TE-90
Rated current (A)	5 to 20	25 to 63	40 to 160	63 to 250	160 to 630	400 to 1000	600 to 2000
Full range covered (A)	0.1 to 24	0.5 to 75	0.8 to 192	1.26 to 300	3.2 to 756	8 to 1200	12 to 2400
Aperture (inches)	Ø 0.31	Ø 0.31	0.53 x 0.53	0.83 x 0.83	1.22 x 1.22	1.61 x 1.61	2.52 x 2.52
Dimensions (inches)	1.10x0.78x1.77	1.10x0.78x1.77	0.98x1.26x2.56	1.38x1.26x2.79	1.77x1.26x3.38	2.16x1.26x3.94	3.54x0.94x4.96
Connection	RJ12	RJ12	RJ12	RJ12	RJ12	RJ12	RJ12
References	4829 0500	4829 0501	4829 0502	4829 0503	4829 0504	4829 0505	4829 0506

For loads greater than 1000 A, use the 5 A/RJ12 adapter associated with 5A secondary CTs.

### Staggered assembly



### Linear assembly



## TR Split-core current sensors



Suitable for existing installations.

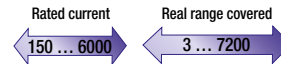
	TR-10	TR-16	TR-24	TR-36
Rated current (A)	25 to 75	32 to 100	63 to 200	200 to 600
Full range covered (A)	0.5 to 90	0.64 to 120	1.26 to 200	4 to 720
Diameter (inches)	Ø 0.39	Ø 0.63	Ø 0.94	Ø 1.42
Dimensions (inches)	0.98x1.53x2.79	1.18x1.65x2.91	1.77x1.73x3.74	2.24x1.65x4.37
Connection	RJ12	RJ12	RJ12	RJ12
References	4829 0551	4829 0552	4829 0553	4829 0554

For loads greater than 600 A, use the the 5 A/RJ12 adapter associated with 5A secondary CTs.

### TR Split-core current sensors



## TF Flexible (Rogowski) current sensors



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

	TF-55	TF-120	TF-300
Rated current (A)	150 to 600	500 to 2000	1600 to 6000
Full range covered (A)	3 to 720	10 to 2400	32 to 7200
Diameter (inches)	Ø 2.16	Ø 4.72	Ø 11.81
Connection	RJ12	RJ12	RJ12
References	4829 0570	4829 0571	4829 0572

### TF Flexible current sensors



## Selection guide

	DIRIS B-10 RS485	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	•	•
2 inputs (status/pulse)	•	•
References	4829 0010	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

DISPLAY	
DIRIS D-30 single-point display	4829 0200

(1) Up to 4 optional modules per meter.

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