

# ***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 and Protection



## Choose

### **Application**

#### New installations

Smart sensors  
matching the pitch of  
protective devices



**Existing installations**  
Split-core or  
Rogowski coil  
smart sensors

### **Mounting**



DIN rail



Panel



Remote display

# and Monitoring



Monitor and optimize your energy consumptions

Class  
**0.5**

Multi-tariff

**Embedded**  
Webserver

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 sags 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



DIRIS 902 A US

# **DIRIS A-40**

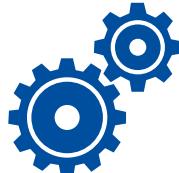
## The reference reinvented

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.



CCUV513 A US

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.

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



### AutoCorrect

Be guaranteed your measurement system is working correctly\*

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

# 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

Up to 200 devices  
**WEBVIEW-L**

Single device  
**WEBVIEW-S**



Up to 32 devices  
**WEBVIEW-M**



SOFT 089 A US



SOFT 089 A FR

# Selection guide

	<b>Functions</b>	<b>DIRIS A-10</b>	<b>DIRIS A-20</b>
<b>CURRENT TRANSFORMERS</b>			
<b>General characteristics</b>	Remote display		
	Number of loads	1	1
	Mounting	DIN	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		
	Web based software	o/-	o/-
	Max. number of inputs (digital/analog)	1/-	3/-
	Max. number of outputs (digital/analog)	1/-	1/-
<b>Manage energy consumptions</b>	4-quadrant energy metering	•	•
	Demand profiles	•	•
	Revenue grade	•	•
	Multi-tariff management	2	
<b>Monitor the electrical installation</b>	Instantaneous, average, min and max values	•	•
	Voltage unbalance measurement		
	Neutral current (measured/calculated)	-/•	-/•
<b>Check the power quality</b>	Harmonic analysis (THD/Individual)	•/-	•/-
	Sag and swell detection		
	Overcurrent detection		
<b>Manage the loads</b>	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 color coding.



### Compact

- Uniquely compact compared to others in the market.
- Linear assembly.
- Staggered assembly.
- Match the pitch of protective devices.

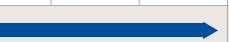
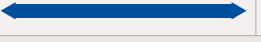
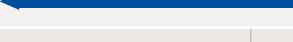
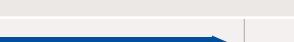


### PreciSense

- Better than revenue grade:
- Class 0.2 ANSI C12.20 for the meter alone
  - Class 0.5 IEC 61557-12 from 2% to 120% of the rated current (full scale), for the global measurement chain (with TE/TR/TF current sensors)

	TE solid-core sensors	Rated currents (A)										Real range covered (A)	Pitch (in/mm)	Aperture (in/mm)	Dimensions (in/mm)
		5	20	25	40	63	160	250	400	600	630				
	TE-90									↔		12 ... 2400	3.54/90	2.52 x 2.52 64 x 64	4.96 x 3.54 x 0.97 126 x 90 x 24.6
	TE-55									↔		8 ... 1200	2.16/55	1.61 x 1.61 41 x 41	3.93 x 2.16 x 1.28 100 x 55 x 32.5
	TE-45					↔						3.2 ... 756	1.77/45	1.22 x 1.22 31 x 31	3.38 x 1.77 x 1.28 86 x 45 x 32.5
	TE-35					↔						1.26 ... 300	1.37/35	0.82 x 0.82 21 x 21	2.79 x 1.37 x 1.28 71 x 35 x 32.5
	TE-25					↔						0.8 ... 192	0.98/25	0.53 x 0.53 13.5 x 13.5	2.56 x 0.98 x 1.28 65 x 25 x 32.5
	TE-18					↔						0.5 ... 75	0.7/18	Ø 0.33 Ø 8,6	1.77 x 1.10 x 0.79 45 x 28 x 20
	TE-18					↔						0.1 ... 24	0.7/18	Ø 0.33 Ø 8,6	1.77 x 1.10 x 0.79 45 x 28 x 20

				
<b>DIRIS A-30</b>	<b>DIRIS B-10</b>	<b>DIRIS B-30</b>	<b>DIRIS A-40</b> Modbus	<b>DIRIS A-40</b> Modbus + Profibus
<b>SMART SENSORS</b>				
1 96 x 96 AC/DC	1 to 4 DIN AC	1 to 4 DIN AC	1 96 x 96 AC	•
• o/- o/- o • 6/4 6/4	• o/o •/o o o	• o/o •/o o o	- / - • / - - o/o	- / - • / - • o/o
	2/2	2/2		3/- 2/-
• o • • • - / • • / •	• o • 8 • • • / • • / - •	• o • 8 • • • / • • / - •		• • • 4 • • - / • • / • • • / • •

	TR / iTR split-core sensors	Rated currents (A)						Real range covered (A)	Aperture (in/mm)	Dimensions (in/mm)
		25	40	63	160	250	600			
	TR/iTR-32							3.2 ... 720	Ø 1.26 Ø 32	2.08 x 3.38 x 1.85 53 x 86 x 47
	TR/iTR-21							1.26 ... 300	Ø 0.83 Ø 21	1.46 x 2.60 x 1.69 37 x 65 x 43
	TR/iTR-14							0.8 ... 192	Ø 0.55 Ø 14	1.14 x 2.63 x 1.10 29 x 67 x 28
	TR/iTR-10							0.5 ... 75	Ø 0.39 Ø 10	1.02 x 1.73 x 1.10 26 x 44 x 28
	TF flexible sensors	Rated currents (A)							Real range covered (A)	Aperture (in/mm)
		150	400	600	1600	2000	4000	6000		
	TF-600								32 ... 7200	Ø 23,62 Ø 600
	TF-300								32 ... 7200	Ø 11,81 Ø 300
	TF-200								12 ... 4800	Ø 7,87 Ø 200
	TF-120								8 ... 2400	Ø 4,72 Ø 120
	TF-55								3 ... 720	Ø 55
	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

## The specialist for critical applications

- 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
- Optimization
- 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

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- 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

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