

# 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

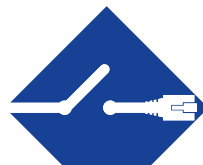
## Discover the future of measurement



### 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.

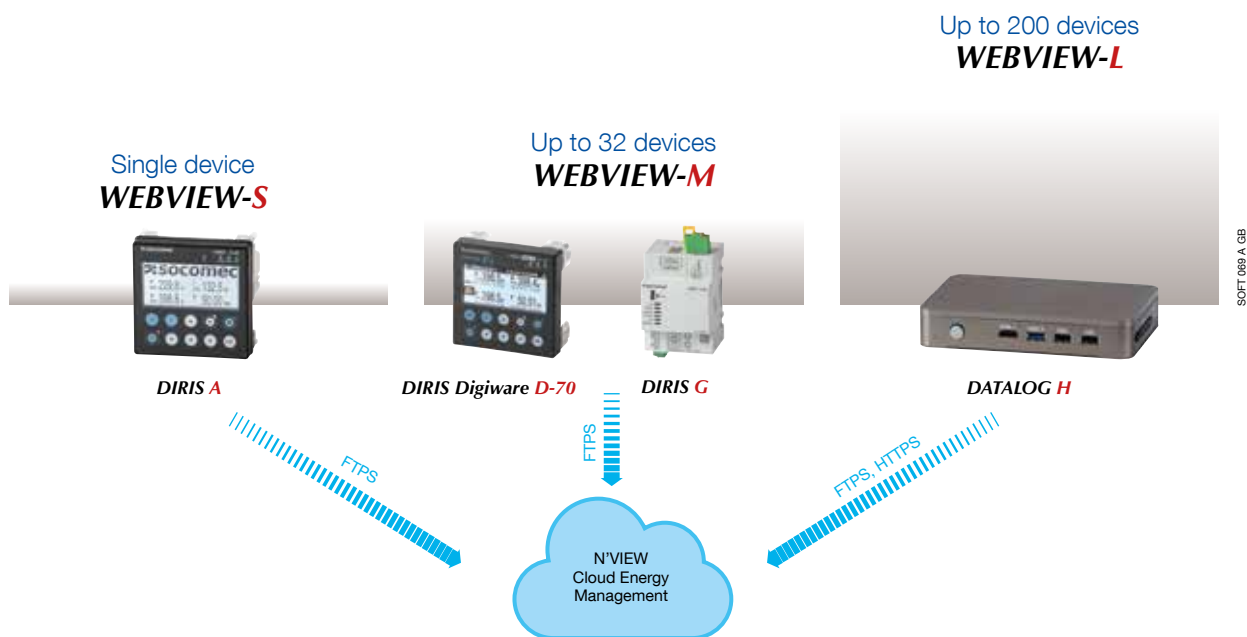
## Alarming

- 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
<b>General characteristics</b>	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/-
<b>Manage energy consumptions</b>	4-quadrant energy metering	•	•
	Load curves (local memory)		•
	Rebilling of energy (MID approved)		•
	Multi-tariff management	2	4
<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)	•/-	•/-
	Dip 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 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

							
<b>DIRIS A-14 96 x 96</b>	<b>DIRIS A-20</b>	<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>DIRIS A-40</b> Modbus + Ethernet
<b>CURRENT TRANSFORMERS</b>			<b>SMART SENSORS</b>				
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		
•	•	•	•	•	•		
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•/-	•/-	•/•	•/-	•/•	•/•		
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		•	•	•	•		

	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

## 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
- 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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