DIRIS DigiBOX

Enclosed single & multi-point metering solution

When **energy** matters

socomec
Innovative Power Solutions

DIRIS DigiBOX

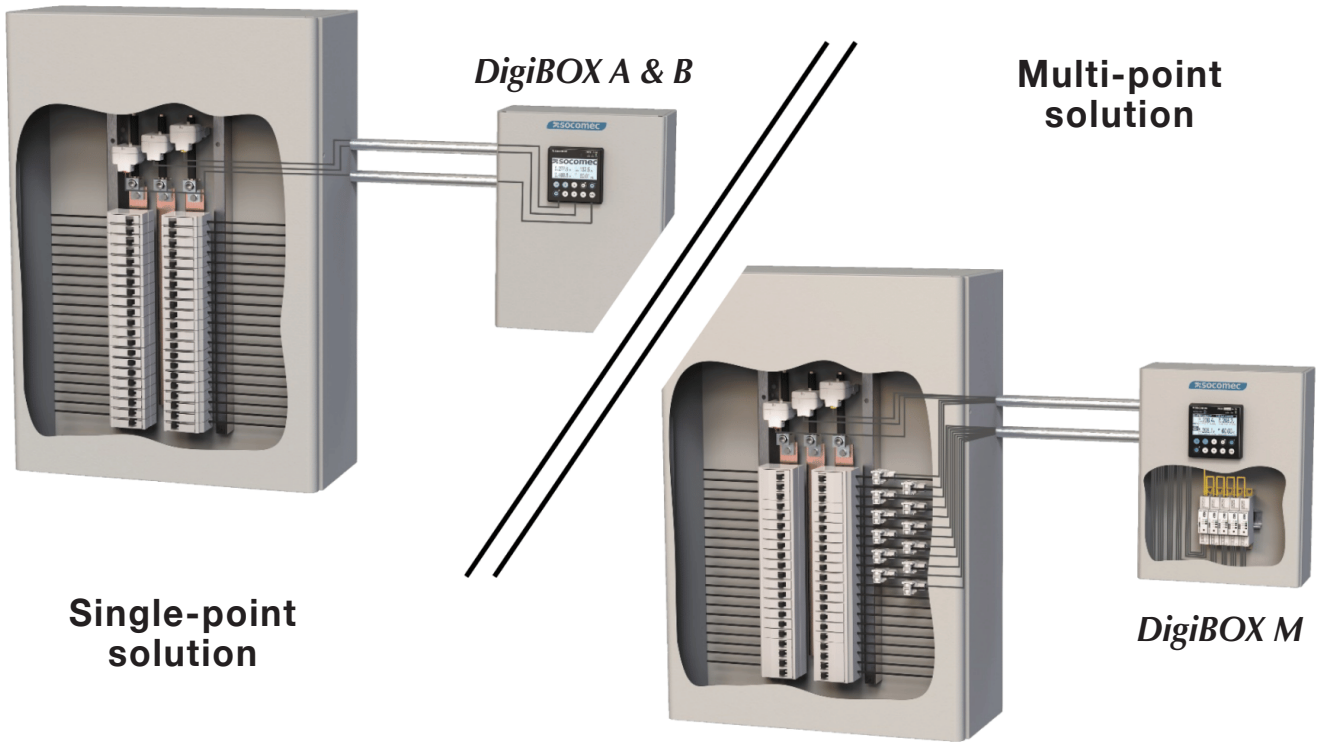
Flexible and scalable enclosed solution for retrofit submetering applications

Socomec DIRIS DigiBOX is an enclosed, factory pre-wired submetering solution addressing a wide range of metering applications.

The single-point DIRIS DigiBOX A & B submeters allow the monitoring of a main feed or one dedicated circuit, while the DIRIS DigiBOX M uses a unique modular concept to monitor multiple circuits of any type (single-phase, three-phase, etc.) simultaneously.

Complete your metering system by selecting suitable current sensors for your application.

The Socomec RJ12 current sensors allow a quick and error-free installation, offering considerable cost savings and reduced customer site downtime.



Embedded WEBVIEW webserver

Our DigiBOX A-40 Ethernet and DigiBOX M PRO solutions include a free webserver for the remote visualization of measurements and consumption.

- User friendly interface with no configuration requirement
- Real time and historical visualization
- 1 year of data storage with 1-hour reading interval
- Breakdown of consumption by usage, individual load and location

Key benefits

Compact design

• Up to 6 times more compact compared with traditional submetering approach (multi-meter cabinets or individual sub meters)

Flexible

• Customizable to your requirements (number of metering points communication, display, functionality, etc.)
• Unique scalable design allowing to add metering points without any tools.

Plug & play

• Factory pre-wired internally.
• Color-coded RJ12 cables for easy phase identification when wiring current sensors to the DigiBOX.
• Automatic detection of current sensor type and rating.
• Using low-voltage mV current sensors, no shorting blocks are needed, they can be disconnected safely under load.

Simple to order

• One part number per DIRIS DigiBOX model.
• Universal system voltage and power supply.
• In stock in USA.

Accurate

Accuracy of measurements meets ANSI C12.20 and IEC 61557-12 standards and exceed revenue grade accuracy:
• Class 0.5 system accuracy (Meter + TE/iTR/ TF current sensors) from 2% to 120% of rated current.
• Class 0.2 DigiBOX A meter accuracy.

Safe & reliable

• Durable NEMA 3R/4X enclosures.
• cULus listed enclosures and components.
• Assembled at our cULus 508A facility.
• Fused voltage connections.
• Detailed installation and commissioning instruction guides.

DigiBOX selection guide

	DigiBOX B & A			*DigiBOX M4*		*DigiBOX M8*		*DigiBOX M4 PRO*		*DigiBOX M8 PRO*	
											
Metering technology	DIRIS B-30	DIRIS A-40	DIRIS A-200	DIRIS Digiware system		DIRIS Digiware system		DIRIS Digiware system		DIRIS Digiware system	
Number of metering points (3P)	1	1	1	4		8		4		8	
Number of current inputs	4	3	4	12		24		12		24	
Display		•	•		•		•		•		•
WEBVIEW webserver		•	•						•		•
Communication											
RS485 (*)	•	•	•	•	•	•	•	•	•	•	•
Ethernet (**)		•	•		•		•		•		•
Enclosure											
Type	Polycarbonate	Polycarbonate	Polycarbonate	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Rating	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 12/3R	NEMA 12/3R	NEMA 12/3R	NEMA 12/3R	NEMA 12/3R	NEMA 12/3R	NEMA 12/3R	NEMA 12/3R
Dimensions (H x W x D)	12 x 10 x 6 in	12 x 10 x 6 in	12 x 10 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in	12 x 12 x 6 in
Electrical characteristics											
Power supply	110 - 240 VAC (***)	110 - 277 VAC	110 - 600 VAC	200 - 480 VAC	200 - 480 VAC	200 - 480 VAC	200 - 480 VAC	200 - 480 VAC	200 - 480 VAC	200 - 480 VAC	200 - 480 VAC
Energy metering											
kWh (+/-), kvarh (+/-), kVAh	•	•	•	•	•	•	•	•	•	•	•
kW (+/-), kvar (+/-), kVA	•	•	•	•	•	•	•	•	•	•	•
Power Factor	•	•	•	•	•	•	•	•	•	•	•
Multi-measurement											
Amps, Volts, Frequency	•	•	•	•	•	•	•	•	•	•	•
Power quality											
Voltage/current imbalance	•	•	•					•	•	•	•
THDV, THDU, THDI	•	•	•					•	•	•	•
Individual Harmonics V, U, I (up to 63rd)	•	•	•					•	•	•	•
Waveform Capture			•								
Alarms											
Measurement thresholds	•	•	•	o	o	o	o	•	•	•	•
Events (voltage sags, swells, interruptions and overcurrent)	•	•	•					•	•	•	•
Email notifications		•	•						•		•
Part Nos	**USDBBB30ND0**	**USDBPA40ET**	**USDBPA200RJ**	**USDBB04ND0**	**USDBB04D50**	**USDBB08ND0**	**USDBB08D50**	**USDBP04ND0**	**USDBP04D70**	**USDBP08ND0**	**USDBP08D70**

o = only on power measurements (kW, kvar, kVA)

(*) Supported RS485 protocol: Modbus RTU

(**) Supported Ethernet protocols: Modbus TCP/IP, BACnet IP

(***) For 480 VAC service types, please consult us

Applications

Manufactured with quality, ease of use and installation, Socomec's enclosed metering solutions have been designed for multiple applications:

- Sub-metering and cost allocation.
- Demand profile analysis.
- Energy efficiency standards and energy codes compliance (ASHRAE 90.1, IECC, Title 24 etc.)
- Green building initiatives (LEED)
- Equipment monitoring
- Preventative maintenance

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Current sensors selection guide

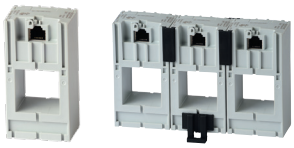
Quick and reliable RJ12 connection of current sensors

TE solid current sensors

Rated current: 5 … 2000 — Real range covered: 0.1 … 2400

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

Model	Rated currents (A)												Real range covered (A)	Ø (in)	Reference
	5	20	25	40	63	160	250	400	600	630	1000	2000			
TE-90									◄	►	►	►	12 … 2400	2.52	**4829 0506**
TE-55								◄	►	►	►		8 … 1200	1.61	**4829 0505**
TE-45						◄	►	►	►	►			3.2 … 756	1.22	**4829 0504**
TE-35					◄	►	►						1.26 … 300	0.82	**4829 0503**
TE-25				◄	►	►							0.8 … 192	0.53	**4829 0502**
TE-18			◄	►	►								0.5 … 75	0.33	**4829 0501**
TE-18	◄	►											0.1 … 24	0.33	**4829 0500**



TR split-core current sensors

Rated current: 25 … 600 — Real range covered: 0.5 … 720

Suitable for existing installations.

Model	Rated currents (A)						Real range covered (A)	Ø (in)	Reference
	25	40	63	160	250	600			
TR/iTR-32				◄	►	►	3.2 … 720	1.26	**4829 0558 / 4829 0658**
TR/iTR-21			◄	►	►		1.26 … 300	0.83	**4829 0557 / 4829 0657**
TR/iTR-14		◄	►	►			0.8 ... 192	0.55	**4829 0556 / 4829 0656**
TR/iTR-10	◄	►	►				0.5 … 75	0.39	**4829 0555 / 4829 0655**

TF Flexible (Rogowski) current sensors (*)

Rated current: 150 … 6000 — Real range covered: 3 … 7200

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

Model	Rated currents (A)							Real range covered (A)	Ø (in)	Reference
	150	400	600	1600	2000	4000	6000			
TF-600				◄	►	►	►	32 … 7200	23.62	**4829 0578**
TF-300				◄	►	►	►	32 … 7200	11.81	**4829 0577**
TF-200			◄	►	►	►		12 … 4800	7.87	**4829 0576**
TF-120		◄	►	►	►			8 … 2400	4.72	**4829 0575**
TF-80	◄	►	►					3 … 720	3.15	**4829 0574**
TF-40	◄	►						3 … 480	1.57	**4829 0573**
RJ12 female/female for RJ12 lead extension between DigiBOX and TF sensors										**4829 0670**
(*) TF Rogowski sensors come with a 6-ft cable lead with RJ12 male connector										

RJ12 cables to connect current sensors to DigiBOX

	Cable length (m/ft)						
	0.5 / 1.64	1 / 3.3	2 / 6.5	3 / 9.84	5 / 16.4	7 / 22.9	10 / 32.8
Number of cables	Reference	Reference	Reference	Reference	Reference	Reference	Reference
1	-	-	-	-	**4829 0602**	-	**4829 0603**
3	**4829 0595**	**4829 0583**	**4829 0584**	**4829 0606**	**4829 0607**	**4829 0608**	**4829 0609**

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