

DIRIS Digiware D

Multipoint display and communication gateway
for the DIRIS Digiware system



Configuration
with Easy Config System



Configuration with Easy Config System

The solution for

- > Data centre
- > Healthcare
- > Energy
- > Industry



Strong points

- > Plug & Play
- > Multi-circuit
- > Embedded web server
- > Advanced connectivity
- > Cyber security
- > Email notifications

Conformity to standards

- > IEC 62974-1
(Energy server)



- > IEC 62443
(Cyber security)



- > UL 61010
Guide FTRZ/PICQ
File E257746



- > FCC
- > IC

Compatible with

- > Cloud solutions



Create your own project

- > Find the best DIRIS Digiware configuration:
www.meter-selector.com



Functions

DIRIS Digiware D-50 and D-70 remote displays enable local visualisation of data from DIRIS Digiware modules and centralise the 24 VDC power supply and communication in a single point. The D-50 and D-70 also act as the Ethernet gateway for all devices connected on the Digiware or RS485 bus, and have an embedded web server to configure the network parameters and to remotely display measurement data.

The D-50 and D-70 displays also offer:

- Bluetooth connectivity for collecting and viewing data from environmental sensors,
- memory extension for connected devices,
- automatic export of logged consumption and data to an FTP(S) server,
- notification emails if there is an alarm on one of the connected devices (SMTPS),
- automatic time synchronisation of all connected devices via SNTP.

Advantages

Plug & Play

- Direct Digiware and RS485 to Ethernet gateway.
- Automatic detection of connected devices.
- Easy configuration.
- Safety Extra Low Voltage 24 VDC power supply.

Multi-circuit

Can display measurement data up to 196 circuits on the same screen. Easy circuit selection, navigation and display via 10 direct access capacitive hotkeys.

Embedded web server

WEB-CONFIG is built in to the D-50 display to configure the architecture for communication. WEBVIEW-M is built in to the D-70 display and available without licence fees, to remotely view measurements and consumption.

Advanced connectivity

- Ethernet output for communication using multiple protocols: Modbus TCP, BACnet IP and SNMP v1, v2, v3 (encrypted) to suit any metering and power monitoring application.
- Possible to configure as RS485 slave to communicate measurement data to a second PLC, for example.

Cyber security

The D-50 and D-70 displays include advanced IEC 62443-compliant cyber security features to secure data transmission and reduce the risk of cyber attacks:

- customised security policy (blockage or restriction of certain protocols or services),
- secure HTTPS navigation by uploading TLS/SSL certificates,
- secure data push (FTPS, SMTPS),
- implementation of a firewall and white-list rules to guard against denial-of-service attacks.

Email notifications

The D-50/D-70 display can send Email notifications in the event of alarms.

General characteristics

- 96 x 96 mm format with 10 hotkeys.
- 24 VDC power supply.
- Modbus RTU/TCP, BACnet IP, SNMP v1, v2, v3 & Traps, HTTPS, FTPS, SMTPS, SNTP, DHCP
- Up to 32 devices (max. 196 circuits) displayed.
- Free built-in Web-based software.

Application				
				
DIRIS Digiware	D-50	D-70	D-50 Bluetooth	D-70 Bluetooth
Digiware input	•	•	•	•
RS485 input	•	•	•	•
RS485 output	•	•	•	•
Ethernet output	Modbus BACnet IP SNMP v1, v2, v3	Modbus BACnet IP SNMP v1, v2, v3	Modbus BACnet IP SNMP v1, v2, v3	Modbus BACnet IP SNMP v1, v2, v3
Bluetooth			•	•
Web server	WEB-CONFIG	WEBVIEW-M	WEB-CONFIG	WEBVIEW-M

Functions



WEB-CONFIG (M-50)

The M-50 gateway includes a WEB-CONFIG enabling you to:

- Configure the device hierarchy and data access,
- Block or restrict access to specific peripherals, protocols or services.

WEBVIEW-M (M-70)

In addition to the WEB-CONFIG, the M-70 gateway enables remote viewing of data on the embedded WEBVIEW-M software, available without licence fees.

- Viewing of real-time measurements.
- Display of on-going alarms and alarm log.
- Viewing of consumption curves and load curves per load or usage.
- Photoview: displays electrical parameters on a customised background such as a site map, an electrical diagram or a panel picture to provide an overview of your electrical installation.

Data storage

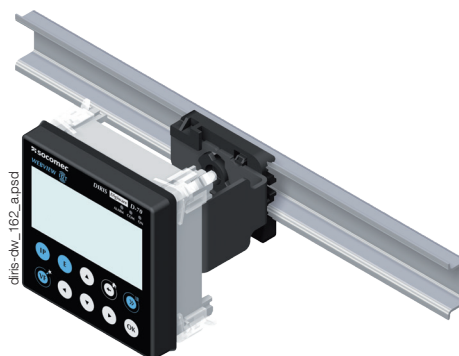
These gateways extend the memory of connected devices so you can log a year's worth of measurements, load curves and consumption curves.

Accessories

DIN-rail mounting kit

The accessory enables you to install the DIRIS Digiware D-50/D-70 display on a DIN rail.

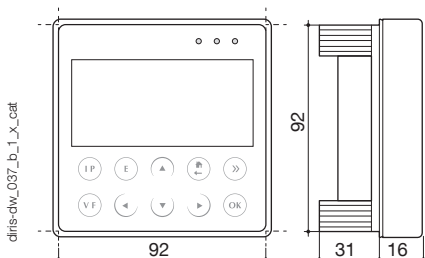
This kit is not included with the displays and must be ordered separately.



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Dimensions (mm)



Configuration

Equipment consumption

Product	Power delivered (W)	Power consumed (W)
Power supply		
P15 100-240 VAC / 24 VDC	15	
P30 100-240 VAC / 24 VDC	20	
Cables		
50-metre package		1.5
System interfaces		
DIRIS Digiware D-50 / D-70		2.5
DIRIS Digiware C-31		0.8
Voltage module		
DIRIS Digiware U-xx		0.72
DIRIS Digiware U-3xdc		0.6
Current modules		
DIRIS Digiware I-3x		0.52
DIRIS Digiware I-4x		1.125
DIRIS Digiware I-6x		0.7
DIRIS Digiware I-3xdc (+ 3 DC current sensors)		2
DIRIS Digiware S-xx		0.35
Input / output modules		
DIRIS Digiware IO-10/IO-20		0.5
Repeater		
DIRIS Digiware C-32		1.5

Calculation rules for the max. number of devices on the Digiware Bus

The total power consumed by the equipment connected to the Digiware bus must not exceed the power delivered by 24 VDC supply.

The power supply must not exceed 20 W / 70 °C or 27 W / 40 °C.

Configuration with P15 power supply (ref: 4829 0120) delivering 15 W

For example, it is possible to use

- 1 DIRIS Digiware D-50 display (2.5 W)
- 1 DIRIS Digiware U-xx voltage module (0.72 W)
- 50 metres of cable (1.5 W)

and

- 19 DIRIS Digiware I-3x current modules (19 x 0.52 = 9.9 W)

⇒ **Total power = 14.845 W**

or

- 9 DIRIS Digiware I-4x current modules (9 x 1.125 = 10.125 W)

⇒ **Total power = 14.345 W.**

Configuration with a 24 VDC power supply delivering a maximum of 20 W (P30 power supply ref.: 4729 0603)

For example, it is possible to use

- 1 DIRIS Digiware D-50 display (2.5 W)
- 1 DIRIS Digiware U-xx voltage module (0.72 W)
- 50 metres of cable (1.5 W)

and

- 29 DIRIS Digiware I-3x current modules (29 x 0.52 = 15.1 W)

⇒ **Total power = 19.82 W**

or

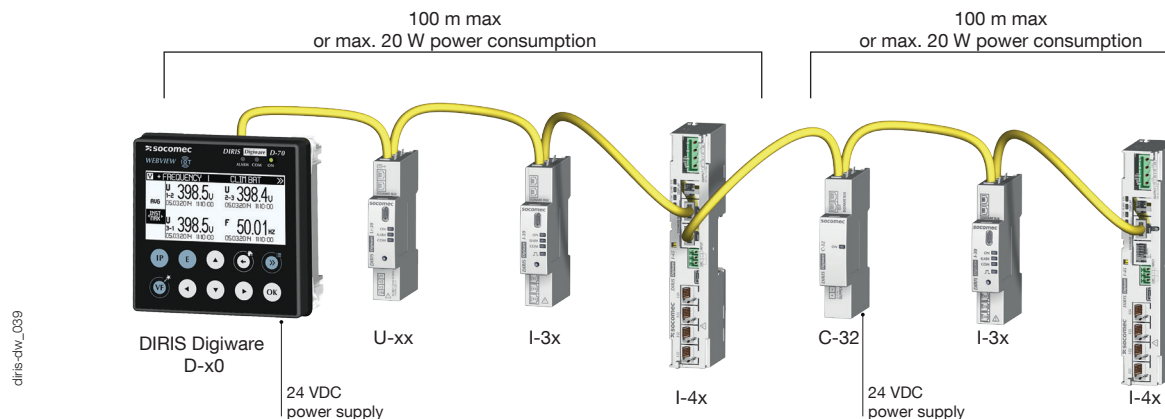
- 13 DIRIS Digiware I-4x current modules (13 x 1.125 = 14.625 W)

⇒ **Total power = 19.345 W.**

Repeater

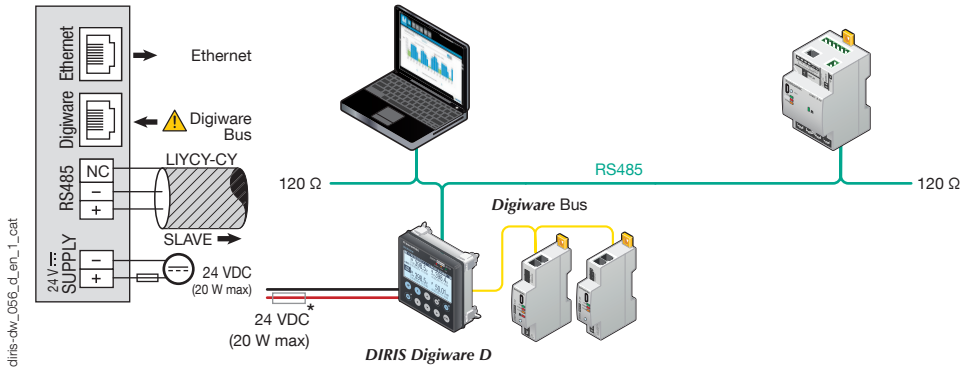
With power consumptions higher than 20 W or distances greater than 100m, a DIRIS Digiware C-32 repeater is required.

In a DIRIS Digiware system, a maximum of 2 repeaters may be used.



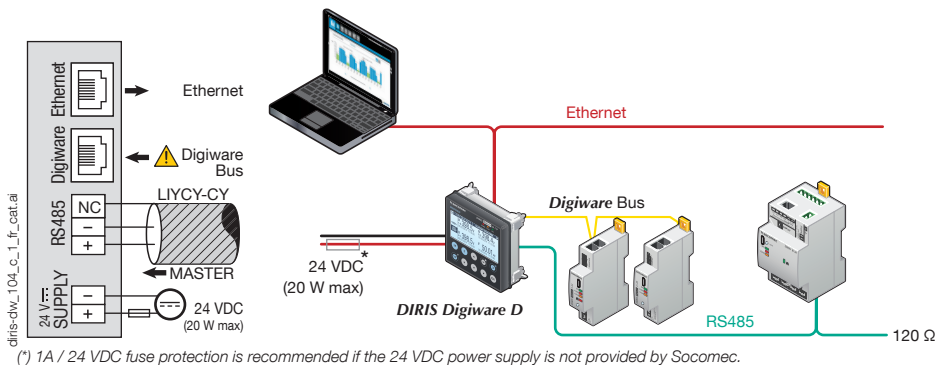
Connections

RS485 slave mode



(*) 1A / 24 VDC fuse protection is recommended if the 24 VDC power supply is not provided by Socomec.

RS485 master mode



(*) 1A / 24 VDC fuse protection is recommended if the 24 VDC power supply is not provided by Socomec.

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Technical characteristics

Mechanical characteristics	
Screen type	Capacitive touch-screen technology, 10 keys
Screen resolution	350 x 160 pixels
Front panel protection rating	IP65
Communication	
RJ45 Ethernet 10/100 Mbps	Gateway function (D-50/D-70): Modbus TCP BACnet IP SNMP v1, v2, v3
RJ45 Digiware	Control and power supply interface function
RS485 2-3 wires	Modbus RTU communication function Configurable as input or output
USB	Upgrade and configuration via type B micro USB connector
Electrical characteristics	
Power supply	24 VDC $\pm 15\%$
Power consumption	2.5 VA
Battery life	10 years

Environmental specifications	
Storage temperature	-20 to +70 °C
Operating temperature	-10 to +55 °C
Operating humidity	95% at 40 °C
Installation category - Pollution Degree	CAT III, 2
Ports	
Digiware	Input
RS485	Input/Output
Ethernet	Output

References

DIRIS Digiware		Reference
D-50	Multipoint display, Ethernet output & RS485 + WEB-CONFIG	4829 0204
D-70	Multipoint display, Ethernet output & RS485 + WEBVIEW-M	4829 0203
D-50 Bluetooth	Multipoint display, Ethernet output & RS485 + WEB-CONFIG + Bluetooth	4829 0206
D-70 Bluetooth	Multipoint display, Ethernet output & RS485 + WEBVIEW-M + Bluetooth	4829 0207
Power supply		Reference
P15	Power supply 100-240 VAC/ 24 VDC 15 W	4829 0120
P30	Power supply 100-240 VAC / 24 VDC 20 W	4729 0603
Digiware connection cables		Reference
RJ45 cables for Digiware Bus	Length 0.06 m	4829 0189
	Length 0.10 m	4829 0181
	Length 0.20 m	4829 0188
	Length 0.50 m	4829 0182
	Length 1 m	4829 0183
	Length 2 m	4829 0184
	Length 3 m	4829 0190
	Length 5 m	4829 0186
	Length 10 m	4829 0187
50 m reel + 100 connectors		4829 0185
Termination for Digiware bus (only replacement ref. as already supplied with D displays)		4829 0180
USB configuration cable		4829 0050
Accessories	Available for order in multiples of	Reference
C-32 repeater		4829 0103
Fuse holder, 1 pole + neutral to protect input voltages (RM type)	4	5701 0017
0.5 A 10x38 gG fuses	10	6012 0000
DIN-rail mounting kit for D-50 and D-70 displays	1	4829 0230
Door mounting kit DIN 144 x 96 mm		4729 0290
IP65 flexible cover for 144 x 96 mm door mounting frame		4729 0291

Expert Services



EXPERT SERVICES

Socomec offers a wide range of services to continuously ensure a functional and accurate energy monitoring system:

- Device integration
- System audit
- Commissioning
- Training for your teams

Ideal for ISO 50001 sites (periodic verification):

- Measurement consistency check to 3%
- Measurement accuracy check to 0.2%