

DIRIS Digiware D

Multi-point display and communication gateway
for the DIRIS Digiware system



Configuration
with Easy Config System.



diris-dw_161

DIRIS Digiware D-50/D-70
Centralisation and display of data

The solution for

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



Strong points

- > Plug & Play
- > Multi-circuit
- > Embedded webserver
- > Advanced connectivity
- > Cybersecurity
- > Email notifications

Compliance with standards

- > IEC 62974-1
(Energy server)



- > IEC 62443
(Cybersecurity)



- > UL 61010
Guide FTRZ/PICQ
File E257746



- > FCC
- > IC

Create your project

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



Function

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

Advantages

Plug & Play

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

Multi-circuit

Display measurement data from up to 196 circuits on the same screen.
10 capacitive hotkeys to easily select circuits and browse/view simple data.

Embedded webserver

A WEB-CONFIG is embedded in the D-50 display to configure the communication architecture.
WEBVIEW-M is embedded in the D-70 display to view measurements and consumption remotely and licence-free.

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.
- Options include configuring as an RS485 slave to communicate measurement data to a second PLC.

Displays D-50 and D-70 also feature:

- bluetooth connectivity for gathering and viewing data from environmental sensors;
- added memory for connected devices;
- automated export of data to the FTP(S) server;
- email notifications if there is an alarm on one of the connected devices (SMTPS);
- automated updates on all the system devices via SNMP.

Cybersecurity

D-50 and D-70 displays include advanced cybersecurity features in compliance with IEC 62443 standards, to protect the transmission of data and reduce the risk of cyberattacks:





- customised security policy (blocking or restricting certain protocols and services);
- HTTPS secured navigation using TLS/SSL certificates;
- push data transfer (FTPS, SMTPS);
- firewalls and whitelist protocols to guard against denial-of-service attacks.

Email notifications

D-50 and D-70 displays can send email notifications in case of an alarm.

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, SNMP, DHCP
- Displays up to 32 devices (max. 196 circuits)
- Free embedded web-based software VFR

Application	Control and power supply interface			
				
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			•	•
Webserver	WEB-CONFIG	WEBVIEW-M	WEB-CONFIG	WEBVIEW-M

Functions



WEBVIEW-M

Embedded web server in the DIRIS Digiware D-70 display

WEBVIEW-M allows the display and remote monitoring of all the electric parameters measured by up to 32 devices. They are displayed in the form of overview screens, graphs or tables for clear and user-friendly analysis.

Access to WEBVIEW is made by a web browser on a PC or tablet and offers multiple features such as the automatic export of data via FTPS or e-mail notification in the presence of alarms (SMTPS).

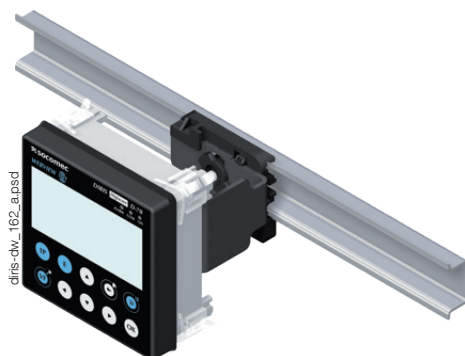
The Photoview application is available via the WEBVIEW interface embedded in the DIRIS Digiware D-70 display. It allows the display of electrical quantities on a customised background picture such as a cabinet, a wiring diagram or the map of a site.

Accessories

DIN rail mounting kit

The accessory allows 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.



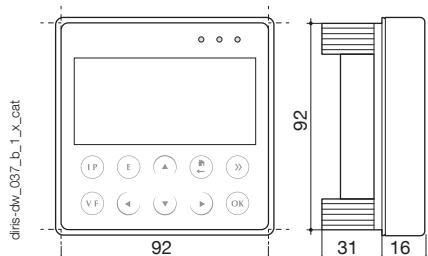
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Dimensions (mm)

DIRIS Digiware D-50/D-70



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
Module voltage		
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 products on the Digiware Bus

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

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

Size 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 voltage module U-xx (0.72 W)
- 50 metres of cable (1.5 W)

and

- 19 DIRIS Digiware current modules I-3x (19 x 0.52 = 9.9 W)
- ⇒ **Total power = 14.845 W**

or

- 9 DIRIS Digiware current modules I-4x (9 x 1.125 = 10.125 W)
- ⇒ **Total power = 14.345 W.**

Size with a 24 VDC power supply delivering a maximum of 20 W

(Power supply P30 ref: 4729 0603)

For example, it is possible to use

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

and

- 29 DIRIS Digiware current modules I-3x (29 x 0.52 = 15.1 W)
- ⇒ **Total power = 19.82 W**

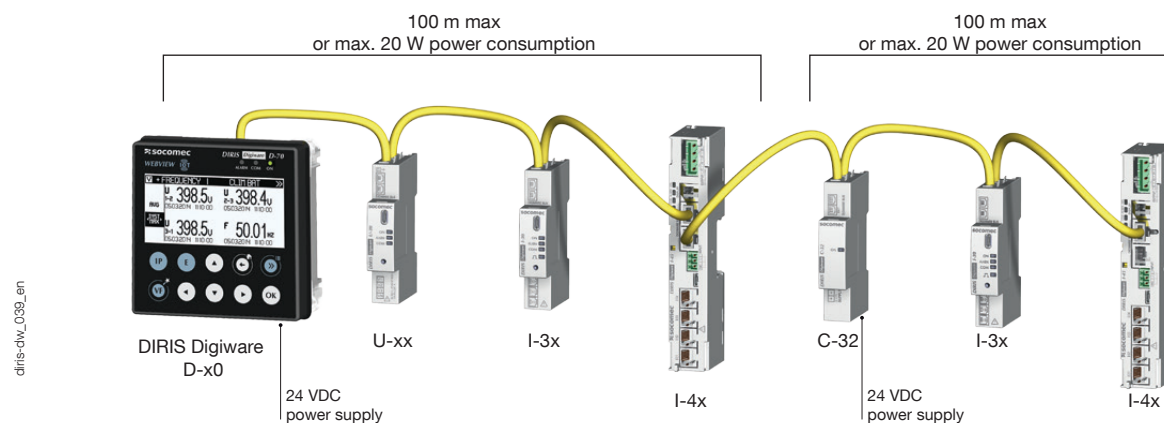
or

- 13 DIRIS Digiware current modules I-4x (13 x 1.125 = 14.625 W)
- ⇒ **Total power = 19.345 W.**

Repeater

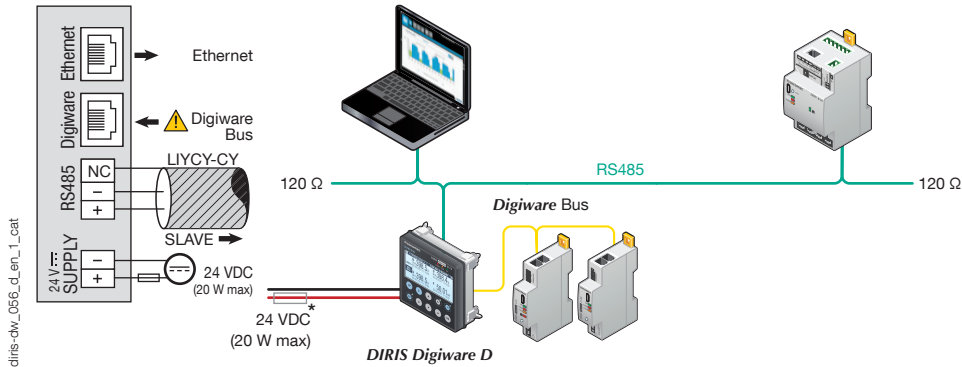
Whenever the power consumption is higher than 20 W or the distance is greater than 100 m, a DIRIS Digiware C-32 repeater is required.

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



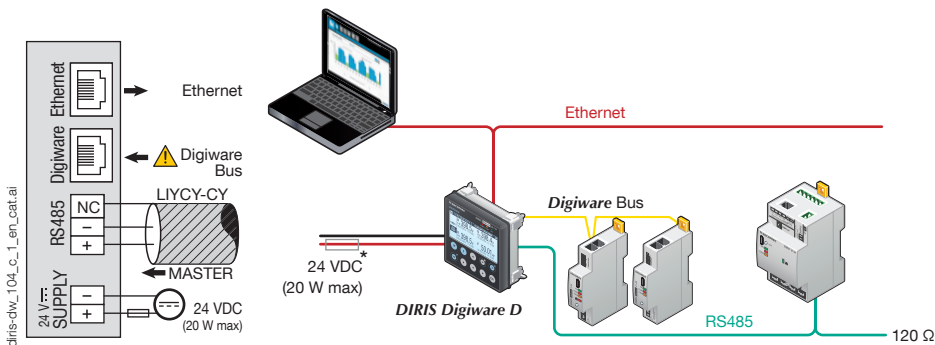
Connections

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	
Type of screen	Capacitive touch-screen technology, 10 keys
Screen resolution	350 x 160 pixels
Front panel protection index	IP65
Communication	
Ethernet RJ45 10/100 Mbs	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 lifetime	10 years

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

References

DIRIS Digiware		Reference
D-50	Multipoint display, Ethernet & RS485 output + WEB-CONFIG	4829 0204
D-70	Multipoint display, Ethernet & RS485 output + WEBVIEW-M	4829 0203
D-50 Bluetooth	Multipoint display, Ethernet & RS485 output + WEB-CONFIG + Bluetooth	4829 0206
D-70 Bluetooth	Multipoint display, Ethernet & RS485 output + 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 (supplied with interfaces D)		4829 0180
USB configuration cable		4829 0050
Accessories	To be ordered in multiples of	Reference
Repeater C-32		4829 0103
Fuse holder to protect voltage inputs (type RM) 1 pole + neutral	4	5701 0017
gG 10x38 0.5 A 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
IP 65 flexible cover for 144 x 96 mm door mounting frame		4729 0291

Expert Services



To constantly ensure a functional, accurate and reliable energy monitoring system, Socomec offers a wide range of services:

- Integration of units
 - System audits
 - Commissioning
 - Staff training
- What's more, ideal for ISO 50001 sites (regular checks):
- Verification of 3% measurement consistency
 - Verification of 0.2% measurement precision