

DIRIS Digiware D and *C*

Control and power supply interfaces



DIRIS Digiware D-40/D-50/D-70
Centralisation and display of data



DIRIS Digiware C-31
Centralisation

Configuration with EasyConfig,

Function

DIRIS Digiware D-40, D-50 and D-70

DIRIS Digiware D remote displays allow:

- a local view of the data from DIRIS Digiware modules
- a power supply to the DIRIS Digiware modules,
- access to this data over Ethernet (D-50/D-70) or RS485 (D-40).

DIRIS Digiware D-50 and **D-70** displays also act as a gateway, centralising measurements from DIRIS Digiware, DIRIS A, DIRIS B and COUNTIS E devices and making them available over Ethernet.

With the DIRIS Digiware D-70 display, data can be visualized on WEBVIEW-M, the "Power & Energy monitoring" embedded web server.

DIRIS Digiware screens are 24 VDC powered.

DIRIS Digiware C-31

For applications without a local display

DIRIS Digiware C-31 interfaces centralise all the system data.

An RS485 Modbus output allows them to provide all this information to energy efficiency software (DIRIS G communication gateways are available for communication via Ethernet - Modbus TCP).

DIRIS Digiware C-31 interfaces and C-32 repeaters are 24 VDC powered.

Advantages

DIRIS Digiware D

- High-resolution graphic screen
- Embedded web server (DIRIS Digiware D-70)
- Multi-protocols (Modbus, BACnet, SNMP)
- 24 VDC SELV (Safety Extra Low Voltage) power supply elimination of hazardous voltage on cabinet doors.
- Ergonomic and easy to use with 10 direct access buttons for:
  - measurement information,
  - output selection,
  - equipment configuration.
- Centralising measurement points:
  - circuit selection,
  - displaying data.

DIRIS Digiware C-31

Compact: Centralise your measurement data on 1 module without a local screen, for a complete system:

- single 24 V power supply (no dangerous voltage on DIRIS Digiware modules for a connection with no interruption),
- a single RS485 communication.

The solution for

- Industry
- Building
- Infrastructure
- Data centers



Strong points

- Centralising and displaying measurement data
- A single power supply for the entire system
- A single RS485 or Ethernet output for the entire system
- WEBVIEW-M embedded web server

Compliance with standards

- IEC 61557-12
- ISO 14025
- UL

Create your project

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

METER SELECTOR DIGITAL TOOL AVAILABLE

Application	Control and power supply interface			
			new 	new 
DIRIS Digiware	***C-31***	***D-40***	***D-50***	***D-70***
Digiware input	•	•	•	•
RS485 input			•	•
RS485 Modbus output	•	•		
Ethernet output			Modbus BACnet IP SNMP v1, v2, v3	Modbus BACnet IP SNMP v1, v2, v3
WEBVIEW-M web server				•

Functions



WEBVIEW-M
Embedded web server in the DIRIS Digiware D-70 display

WEBVIEW 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 (SMTP).

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

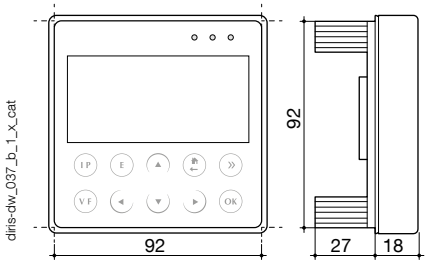
Only compatible with DIRIS Digiware D-50v2 and D-70v2 displays, the accessory allows you to install the system display on a din rail.

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

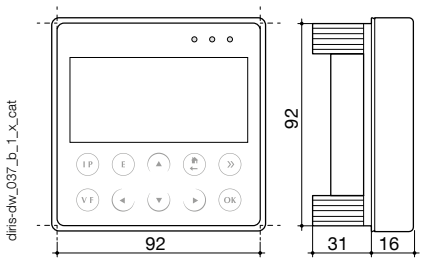


Dimensions (mm)

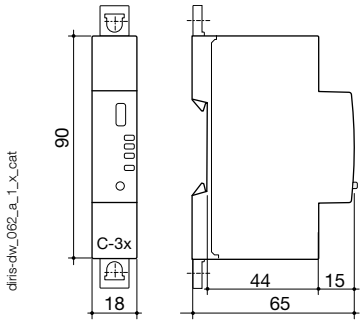
DIRIS Digiware D-40



DIRIS Digiware D-50/D-70



DIRIS Digiware C-31



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-40		2
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-40 display (2 W)
- 1 DIRIS Digiware voltage module U-xx (0.72 W)
- 50 metres of cable (1.5 W)

and
- 20 DIRIS Digiware current modules I-3x (20 x 0.52 = 10.4 W)
  ⇨ **Total power = 14.62 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)

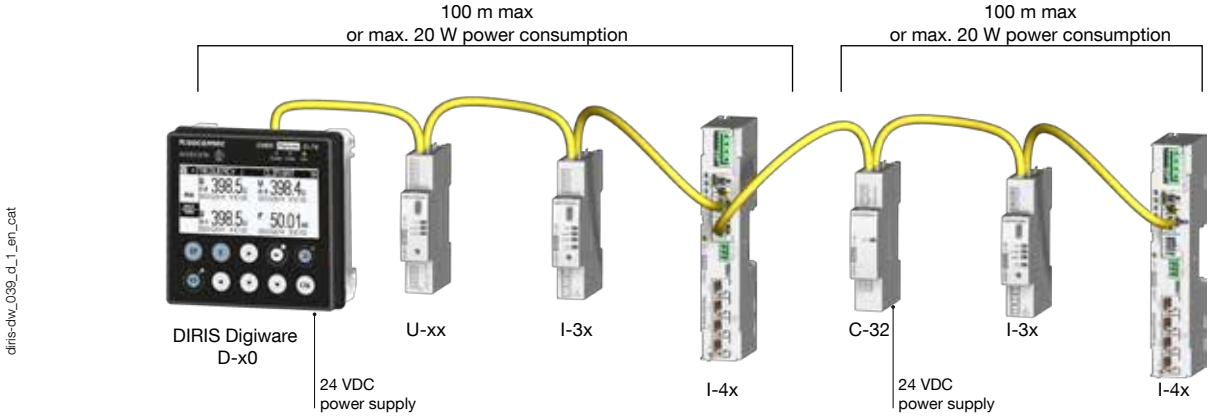
For example, it is possible to use
- 1 DIRIS Digiware D-40 display (2 W)
- 1 DIRIS Digiware voltage module U-xx (0.72 W)
- 50 metres of cable (1.5 W)

and
- 30 DIRIS Digiware current modules I-3x (30 x 0.52 = 15.6 W)
  ⇨ **Total power = 19.82 W**

or
- 14 DIRIS Digiware current modules I-4x (14 x 1.125 = 15.72)
  ⇨ **Total power = 19.97 W**.

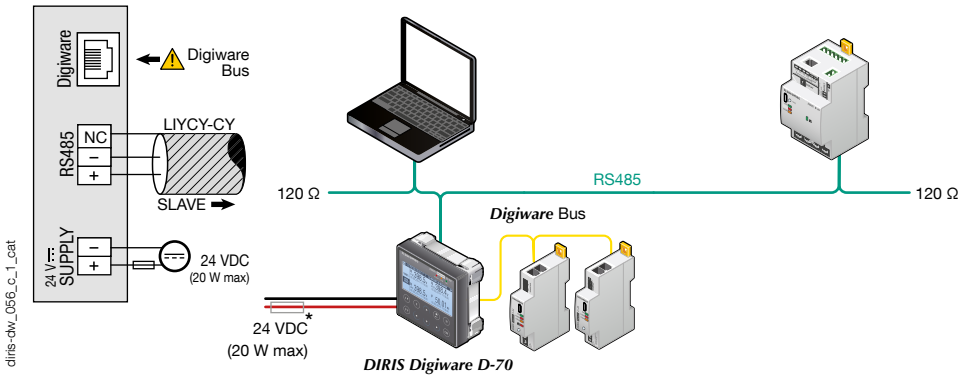
Repeater

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.



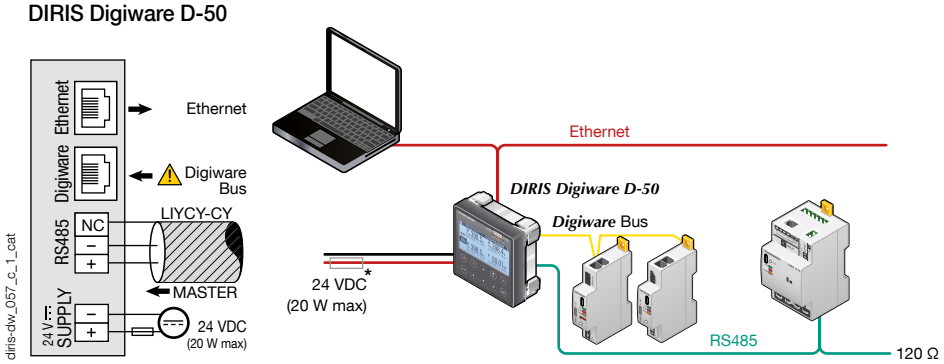
Connections

DIRIS Digiware D-40



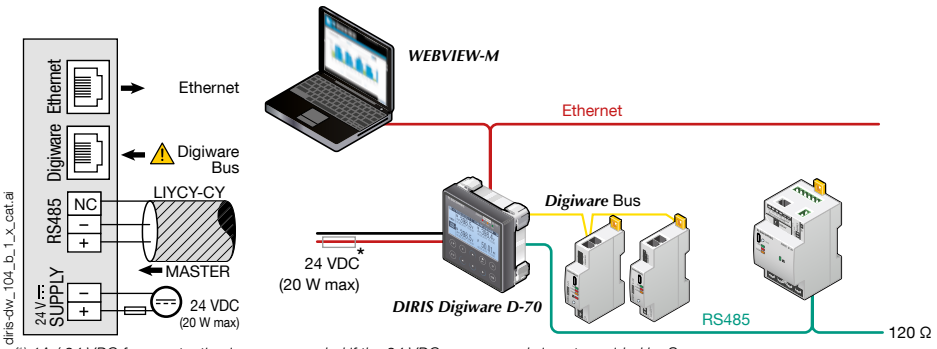
(*) 1A / 24 VDC fuse protection is recommended if the 24 VDC power supply is not provided by Socomec.

DIRIS Digiware D-50



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

DIRIS Digiware D-70



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

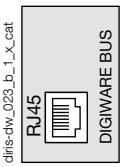
Connections (continued)

DIRIS Digiware C-31

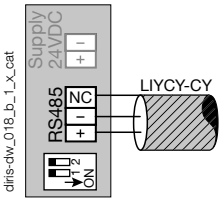
Power supply



Digiware bus

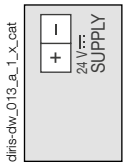


Communication

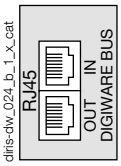


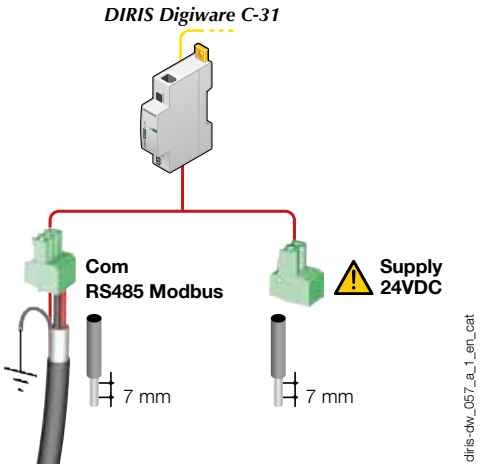
DIRIS Digiware C-32

Power supply



Digiware bus





Technical characteristics

Electrical characteristics

DIRIS Digiware C-31	
Input voltage	24 VDC ± 20 % - 20 W max
Connection	Removable screw terminal block, 2 positions, stranded or solid 0.2-2.5 mm² cable
P15 power supply	Characteristics: 100-240 VAC/ 24 VDC - 0.63 A - 15 W Modular format - Dimensions (H x L): 90 x 36 mm

Communication specifications

Digiware Bus	
Function	Connection between DIRIS Digiware modules
Cable type	Specific Socomec cable with RJ45 connections
RS485	
Connection type	2 to 3 half duplex wires
Protocol	Modbus RTU
Baudrate	1200 to 115 200 bauds
Function	Data configuration and reading
Location	Single-point on DIRIS Digiware C

Mechanical features

Casing type	DIN-rail mounting module and base
Casing protection index	IP20 / IK06
Front panel protection index	IP40 on the nose in modular assembly / IK06

Environmental specifications

Ambient operating temperature	-10 to +70°C
Storage temperature	-25 to +70°C
Operating humidity	55 °C / 97% HR
Operating altitude	< 2000 m

DIRIS Digiware D-40/D-50/D-70 features

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 - output for D-40 - input for D-50 / D-70
USB	Upgrade and configuration via type B micro USB connector
Electrical characteristics	
Power supply	24 VDC +10 % / -20%
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	**D-40**	**D-50/D-70**
Inputs	Digiware	Digiware RS485
Outputs	RS485	Ethernet

References

DIRIS Digiware		Reference
D-40	Multipoint display, RS485 output	4829 **0199**
D-50	Multipoint display, Ethernet output	4829 **0204**
D-70	Multipoint display, Ethernet output + embedded web server	4829 **0203**
C-31	System interface - no display, RS485 output	4829 **0101**
C-32	Repeater	4829 **0103**
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 5 m	4829 **0186**
	Length 10 m	4829 **0187**
	50 m reel + 100 connectors	4829 **0185**
Termination for Digiware Bus (supplied with interfaces C and D)		4829 **0180**
USB configuration cable		4829 **0050**
Single-point display		**Reference**
DIRIS D-30(1)	Single-point display for DIRIS Digiware I-4x and DIRIS B	4829 **0200**
Accessories	**To be ordered in multiples of**	**Reference**
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 v2 displays	1	4829 **0230**

(1) DIRIS D-30 display characteristics, see page "DIRIS B".

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