

# DIRIS Digiware D and C

Communication and control power interfaces



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



**DIRIS Digiware C-31**  
Centralization

## The solution for

- > Industry
- > Building
- > Infrastructure
- > Data centers



## Strong points

- > Centralizing 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

- > UL 61010 guide FTRZ/PICQ file E257746



- > IEC 61557-12



- > ISO 14025



## Create your project



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 and DIRIS B 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.

## 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 means elimination of hazardous voltage on cabinet doors.
- Ergonomic and easy to use with 10 direct access buttons for:
  - measurement information,
  - circuit selection,
  - equipment configuration.
- Centralizing measurement points:
  - circuit selection,
  - displaying data.

### DIRIS Digiware C-31

For applications without a local display DIRIS Digiware C-31 interfaces centralize data for the entire system.

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.

### DIRIS Digiware C-31





Compact: Centralize 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.



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Application	Control and power supply interface			
				
<b>DIRIS Digiware</b>	<b>C-31</b>	<b>D-40</b>	<b>D-50</b>	<b>D-70</b>
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



scrL\_059\_a.psd

### 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 customized background picture such as a cabinet, a wiring diagram or the map of a site.

## Accessories

### DIN rail mounting kit

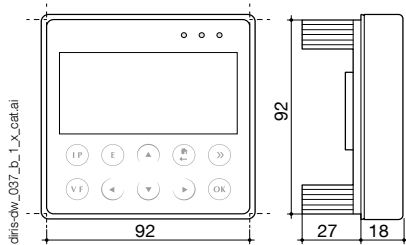
Only compatible with DIRIS Digiware D-50v2 and D-70v2 displays, the accessory allows you to install the system display on a din rail. This kit is not included with the displays and must be ordered separately.



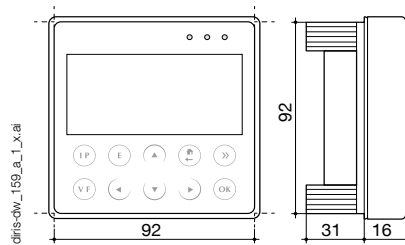
diris-dw\_162\_a.psd

## Dimensions (in/mm)

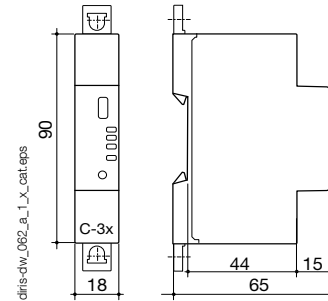
### DIRIS Digiware D-40



### DIRIS Digiware D-50/D-70



### DIRIS Digiware C-31



## Configuration

### Equipment consumption

Product	Power delivered (W)	Power consumed (W)
<b>Power supply</b>		
P15 100-240 VAC / 24 VDC	15	
P30 100-240 VAC / 24 VDC	20	
<b>Cables</b>		
164-foot package		1.5
<b>System interfaces</b>		
DIRIS Digiware D-40		2
DIRIS Digiware D-50 / D-70		2.5
DIRIS Digiware C-31		0.8
<b>Module voltage</b>		
DIRIS Digiware U-xx		0.72
DIRIS Digiware U-3xdc		0.6
<b>Current modules</b>		
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
<b>Input/output modules</b>		
DIRIS Digiware IO-10/IO-20		0.5
<b>Repeater</b>		
DIRIS Digiware C-32		1.5

### Repeater

Whenever the power consumption is higher than 20 W or the distance is greater than 100 m / 328 ft, a DIRIS Digiware C-32 repeater is required. In a DIRIS Digiware system, a maximum of 2 repeaters may be used.

### 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)  
 $\Rightarrow$  **Total power = 14.62 W**

or

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

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

For example, it is possible to use

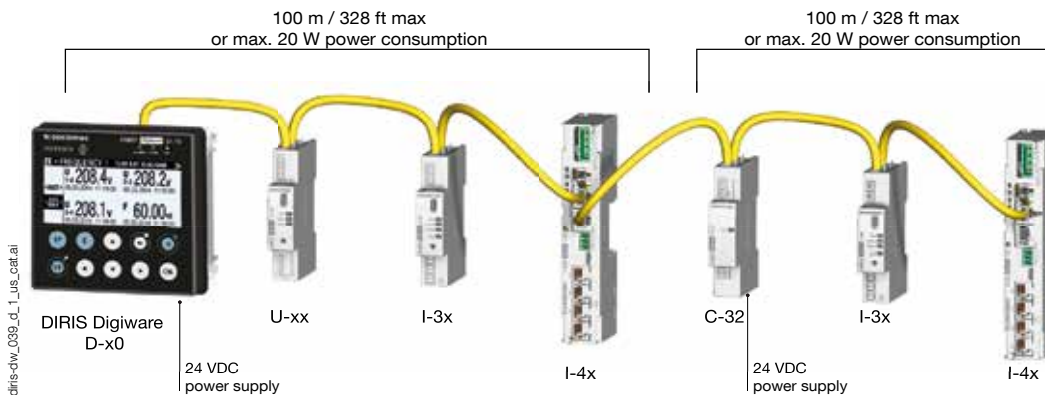
- 1 DIRIS Digiware D-40 display (2 W)
- 1 DIRIS Digiware voltage module U-xx (0.72 W)
- 164 feet of cable (1.5 W)

and

- 30 DIRIS Digiware current modules I-3x (30 x 0.52 = 15.6 W)  
 $\Rightarrow$  **Total power = 19.82 W**

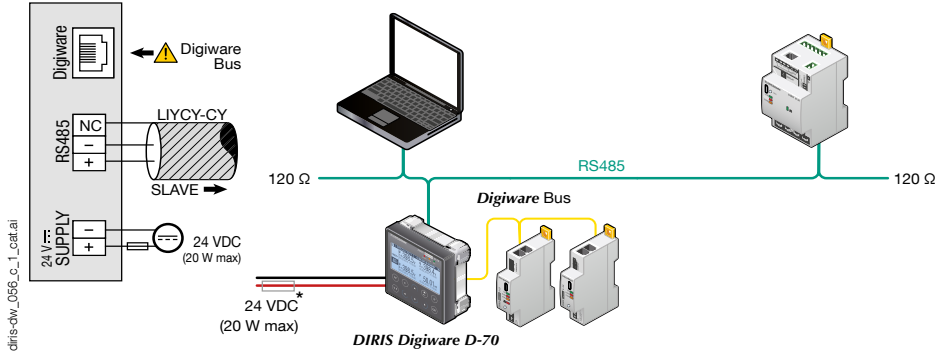
or

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



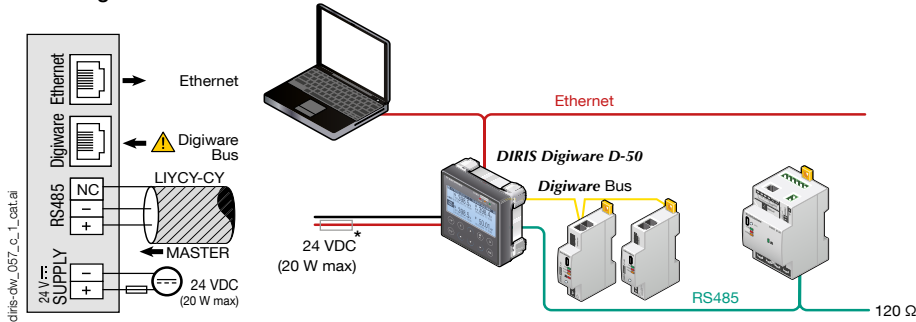
Connections

DIRIS Digiware D-40



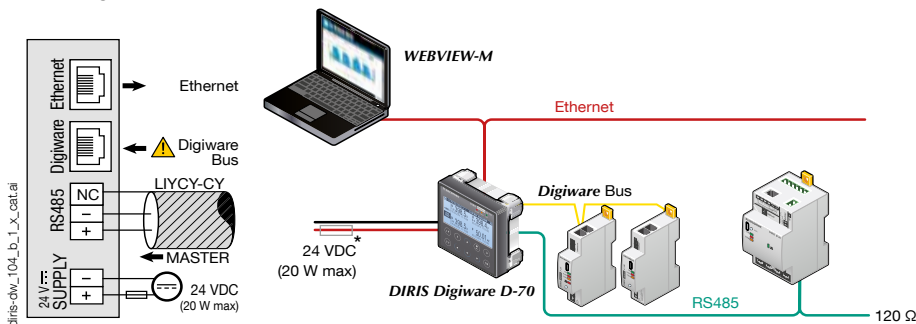
(\*) 1A / 24 VDC fuse protection is recommended if the 24 VDC power supply is not provided by Socomec.

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.

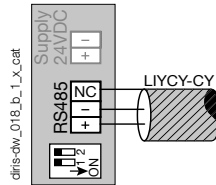
## Connections (continued)

### DIRIS Digiware C-31

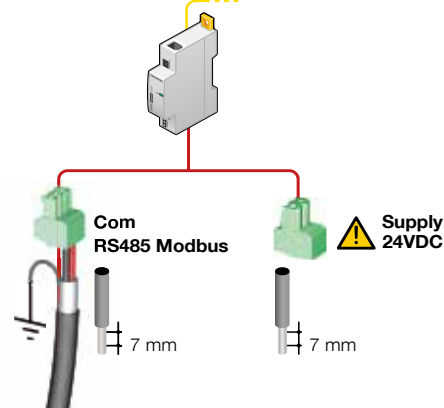
Power supply

Digiware bus

Communication



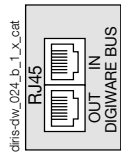
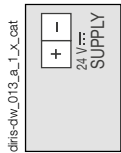
DIRIS Digiware C-31



### 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 mm <sup>2</sup> cable
P15 power supply	Specifications 100-240 VAC/ 24 VDC - 0.63 A - 15 W Modular format - Dimensions (H x L): 3.5 x 1.42 in/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 115200 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 ... +70 °C/+14 °F ... +158 °F
Storage temperature	-25 ... +70 °C/-13 °F ... +158 °F
Operating humidity	55 °C / 131 °F / 97% relative humidity
Operating altitude	6560 feet / 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 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 - output D-40 - input 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 ... +70 °C/-4 °F ... +158 °F	
Operating temperature	-10 ... +55 °C/+14 °F ... +131 °F	
Humidity	95 % at 40 °C/104 °F	
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	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	0.20 feet / 0.06 m length	4829 0189
	0.32 feet / 0.10 m length	4829 0181
	0.66 feet / 0.20 m length	4829 0188
	1.64 feet / 0.50 m length	4829 0182
	3.28 feet / 1 m length	4829 0183
	6.56 feet / 2 m length	4829 0184
	16.4 feet / 5 m length	4829 0186
	32.8 feet / 10 m length	4829 0187
	164 feet / 50 m + 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 <sup>(1)</sup>	Single-point display for DIRIS Digiware I-4x and DIRIS B	4829 0200
Accessories		Reference
	<b>To be ordered in multiples of</b>	
Fuse circuit breakers to protect voltage inputs (type RM) 1 pole + neutral	4	5701 0017
gG 10x38 0.5 A fuses	10	6012 0000
Fuse holder Class CC to protect voltage inputs 3 pole	4	5705 0003
Class CC 0.5 A fuses	10	6000 5000
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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