

DIRIS Digiware C-31

Control and power supply interface

for the DIRIS Digiware system



DIRIS Digiware C-31
Centralisation



Configuration
with Easy Config System.

Function

For applications without a local display, the DIRIS Digiware C-31 interface centralises all your system data and provides all this information to external software or a PLC via RS485. The DIRIS Digiware C-31 interface is supplied with 24 VDC.

Advantages

Compact

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

- Single auxiliary 24 VDC power supply
- A single RS485 communication

24 VDC Safety Extra Low Voltage power supply

- No dangerous voltage
- The power supply feeds the entire system through the Digiware bus

The solution for

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



Strong points

- > Compact
- > 24 VDC Safety Extra-Low Voltage power supply

Compliance with standards

- > IEC 61557-12



- > UL 61010
Guide FTRZ/PICQ
File E257746

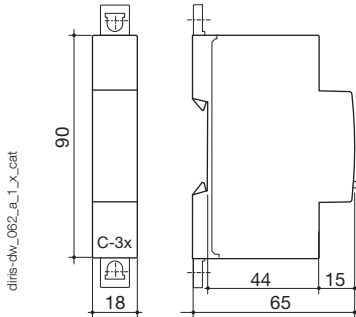


Create your project

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

METER SELECTOR
DIGITAL TOOL AVAILABLE

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
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 = 14.62 W**

or

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

⇒ **Total power = 14.845 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

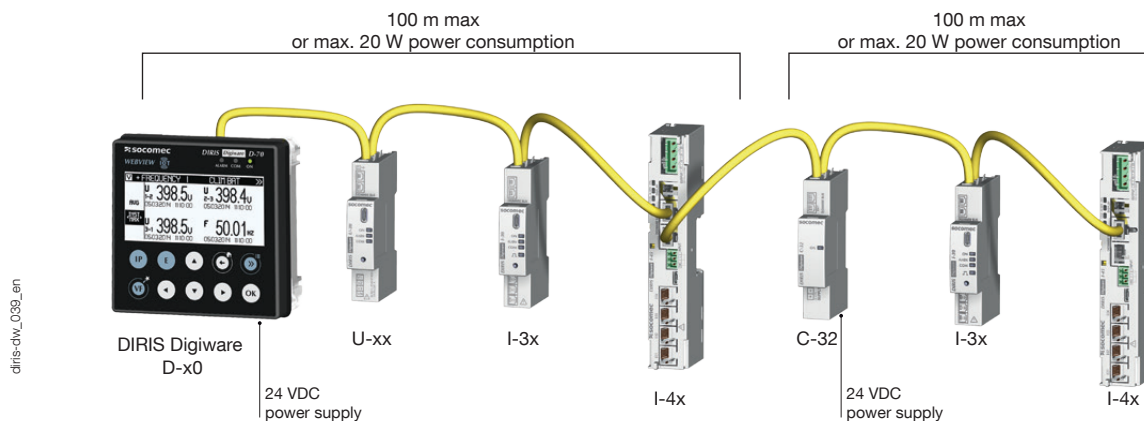
- 13 DIRIS Digiware current modules I-4x (13 x 1.125 = 14.625 W)

⇒ **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.



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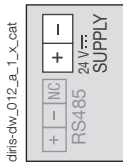
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Connections

DIRIS Digiware C-31

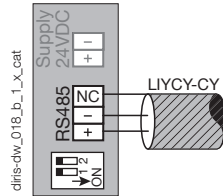
Power supply



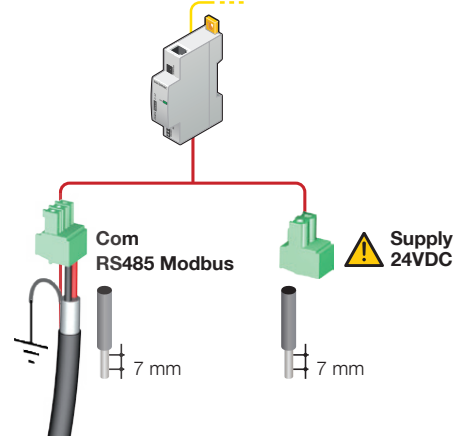
Digiware bus



Communication

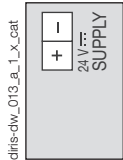


DIRIS Digiware C-31

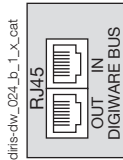


DIRIS Digiware C-32

Power supply



Digiware bus



Technical characteristics

Electrical characteristics

Input voltage	24 VDC \pm 20% - 20 W max
Connection	Removable screw terminal block, 2 positions, stranded or solid 0.2-2.5 mm ² cable
P15 power supply	Technical 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	9600 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 to +70 °C
Storage temperature	-25 to +70 °C
Operating humidity	55 °C / 97% HR
Operating altitude	< 2000 m

References

DIRIS Digiware		Reference
C-31	System interface - no display, RS485 output	4829 0101
C-32	Repeater	4829 0103

Expert Services



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