DIRIS Digiware D and *C*

Control and power supply interfaces

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

DIRIS Digiware C-31
Centralisation

Configuration with EasyConfig, see page 618.

Function

DIRIS Digiware D-40 and D-50

DIRIS Digiware D remote screens give you:
- a local view of the data issued by the DIRIS Digiware U and I modules,
- a power supply to the DIRIS Digiware modules,
- access to this data over Ethernet (D-50) or RS485 (D-40)

Via an RS485 connection, the DIRIS Digiware D-50 screen also acts as a gateway, centralizing all information issued by DIRIS A, DIRIS B and COUNTIS E and making this information available on Ethernet.

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.

Through their RS485 Modbus output, they make all this information available to energy efficiency software (DIRIS G communication gateways are available to communicate via Ethernet - Modbus TCP).

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

Advantages

DIRIS Digiware D-40 and D-50
- High-resolution graphic screen.
- Made safe by a 24 VDC supply: elimination of hazardous voltage on cabinet doors.
- IP65 front panel.
- Ergonomic and easy to use with 10 direct access buttons for:
  - Measurement information
  - Selecting outputs
  - Configuration equipment.
- Centralising measurement points:
  - Selecting the circuit
  - Displaying data.

DIRIS Digiware C-31

Compact: Centralise your measurement data on 1 module without a local screen, for a complete system
- Single 24V power supply (no dangerous voltage on Digiware modules for an uninterruptible connection),
- A single RS485 communication.

The solution for

- Industry
- Building
- Infrastructure
- Data center

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

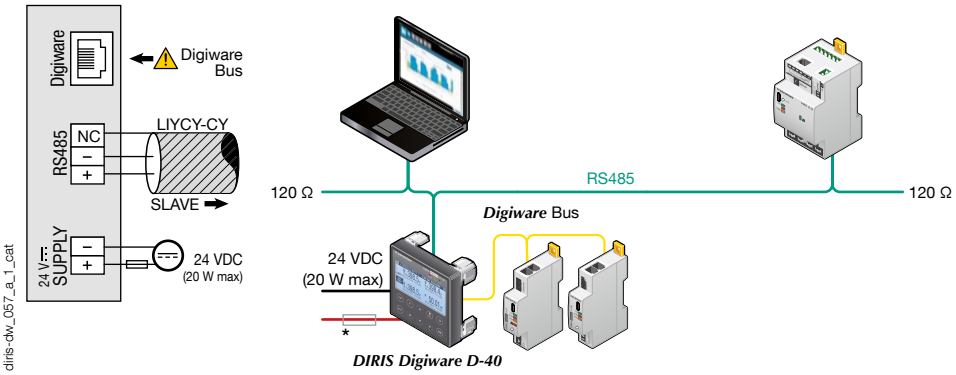
Conformity to standards

- IEC 61557-12
- ISO 14025
- UL

socomec Innovative Power Solutions

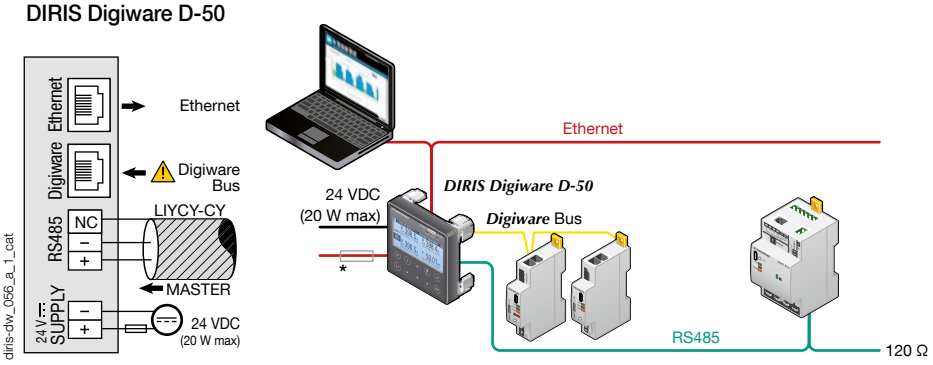
Connections

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

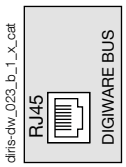


(*) 1A / 24 VDC fuse protection is recommended if the 24 VDC power supply is not provided by Socomec.

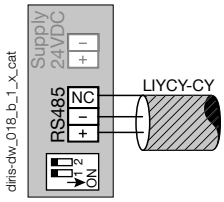
DIRIS Digiware C-31

Power supply

Digiware Bus

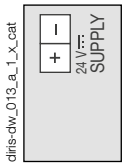


Communication

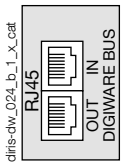


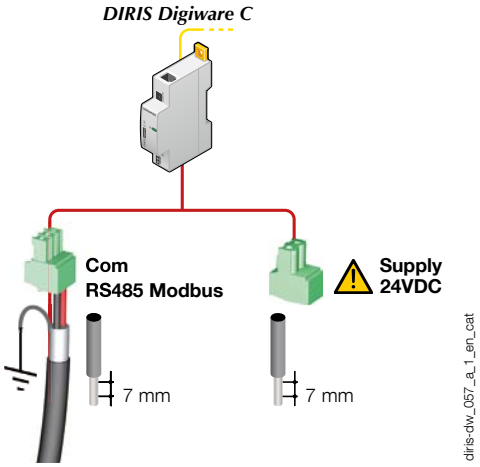
DIRIS Digiware C-32

Power supply



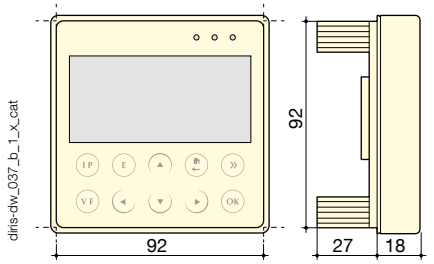
Digiware Bus



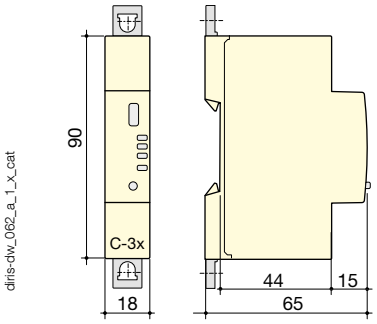


Dimensions

DIRIS Digiware D-40/D-50



DIRIS Digiware C-31



Configuration

Equipment consumption

Product	Power delivered (W)	Power consumed (W)
Power supply		
P15 100-240 VAC / 24 VDC	15	
Cables		
50 metre package		1.5
System interfaces		
DIRIS Digiware D-x0		2
DIRIS Digiware C-31		0.8
Module voltage		
DIRIS Digiware U-xx		0.72
Current modules		
DIRIS Digiware I-3x		0.52
DIRIS Digiware I-4x		1.125
DIRIS Digiware I-6x		0.7
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 (2W)
- 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

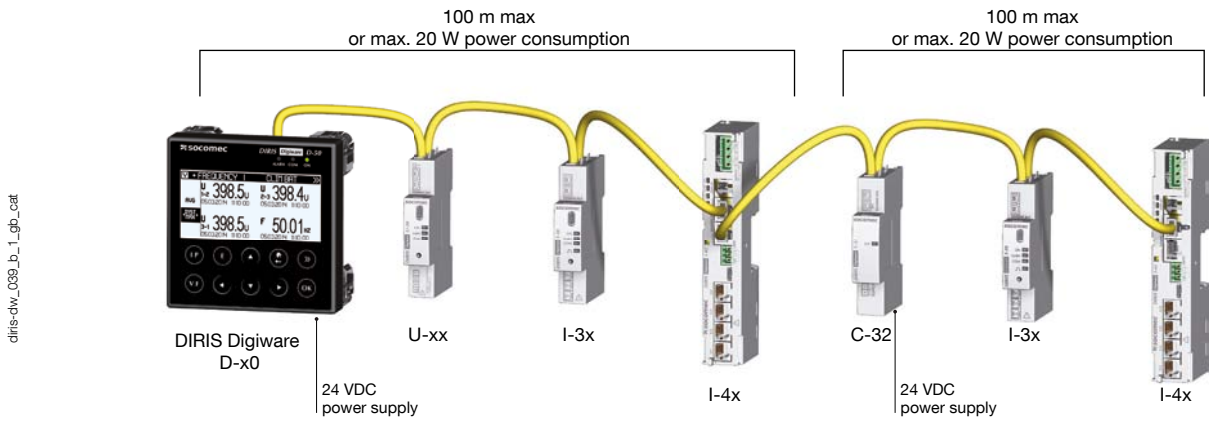
For example, it is possible to use
- 1 DIRIS Digiware D-50 display (2W)
- 1 DIRIS Digiware voltage module U-xx (0.72 W)
- 50 metres of cable (1.5 W)

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.



Specifications

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	Specifications 100-240 VAC/ 24 VDC - 0,63 A - 15 W Modular format - Dimensions (H x L): 90 x 25 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 … 115200 bauds
Function	Data configuration and reading
Location	Single-point on DIRIS Digiware C

Mechanical specifications

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
Storage temperature	-25 … +70°C
Operating humidity	55 °C / 97% HR
Operating altitude	< 2000 m

DIRIS Digiware D-40/D-50 features

Mechanical specifications	
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	Modbus TCP gateway function (D50)
RJ45 Digiware	Control and power supply interface function
RS485 2-3 wires	Modbus RTU communication function (D50 input / D40 output)
USB	Upgrade and configuration via type B micro USB connector
Electrical characteristics	
Power supply	24 VDC +10% / -20%
Power consumption	2 VA
Environmental specifications	
Storage temperature	-20 … +70°C
Operating temperature	-10 … +55°C
Humidity	95% at 40°C
Installation category, degree of pollution	CAT III, 2

Ports	D-40	D-50
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 **0201**
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**

Accessories Description of accessories	To be ordered in multiples of	Reference
Fuse circuit breakers to protect voltage inputs (type RM) 1 pole + neutral	4	5601 **0017**
gG 10x38 0.5 A fuses	10	6012 **0000**

Digiware connection cables		Reference
RJ45 cables for Digiware Bus	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**
	Reel 50 m + 100 connectors	4829 **0185**
Digiware bus terminating resistor (supplied with C and D devices)		4829 **0180**
USB configuration cable		4829 **0050**
Single-point display		**Reference**
DIRIS D-30(1)	Single-point display for DIRIS Digiware I-4x	4829 **0200**

(1) DIRIS D-30 display characteristics see page 521.

Expert Services

Require integration onto your network?
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