

DIRIS Digiware Udc

DC voltage measurement module



DIRIS Digiware U-31dc/U-32dc

DIRIS Digiware adaptor U500dc/
U1000dc/U1500dc

Configuration
with Easy Config System.

Function

The **DIRIS Digiware U-3xdc** module acquires DC voltage for the entire system. It measures up to 180 VDC with a direct connection and is therefore compatible with typical nominal voltages (24 VDC, 48 VDC etc.).

The voltage adaptors make the system compatible with all voltage levels up to 1650 VDC to meet the needs of all applications.

The RJ45 Digiware Bus transmits voltage measurements along with power supply and communication to all connected products.

Advantages

Single voltage measurement

- A single voltage measurement point for the entire system.
- Single point of protection for the voltage measurement.
- No hazardous voltage on cabinet doors.

Flexible

- The DC voltage adaptors make the measurement system compatible with all DC electrical networks.

Plug & Play

- Easy to configure from DIRIS Digiware D interfaces or from the Easy Config software.

The solution for

- > Data centre
- > Telecommunication
- > Renewable power
- > Transportation



Strong points

- > Centralisation of voltage measurement
- > Flexible
- > Plug & Play



RJ45 (Digiware Bus) cables are available.

Conformity to standards

- > IEC 61557-12



- > ISO 14025



- > UL E257746



Do you need the support of an expert?



EXPERT
SERVICES

Socomec offers a wide range of services to continuously ensure a functional and accurate energy monitoring system. Ideal for ISO 50001 sites (periodic verification).

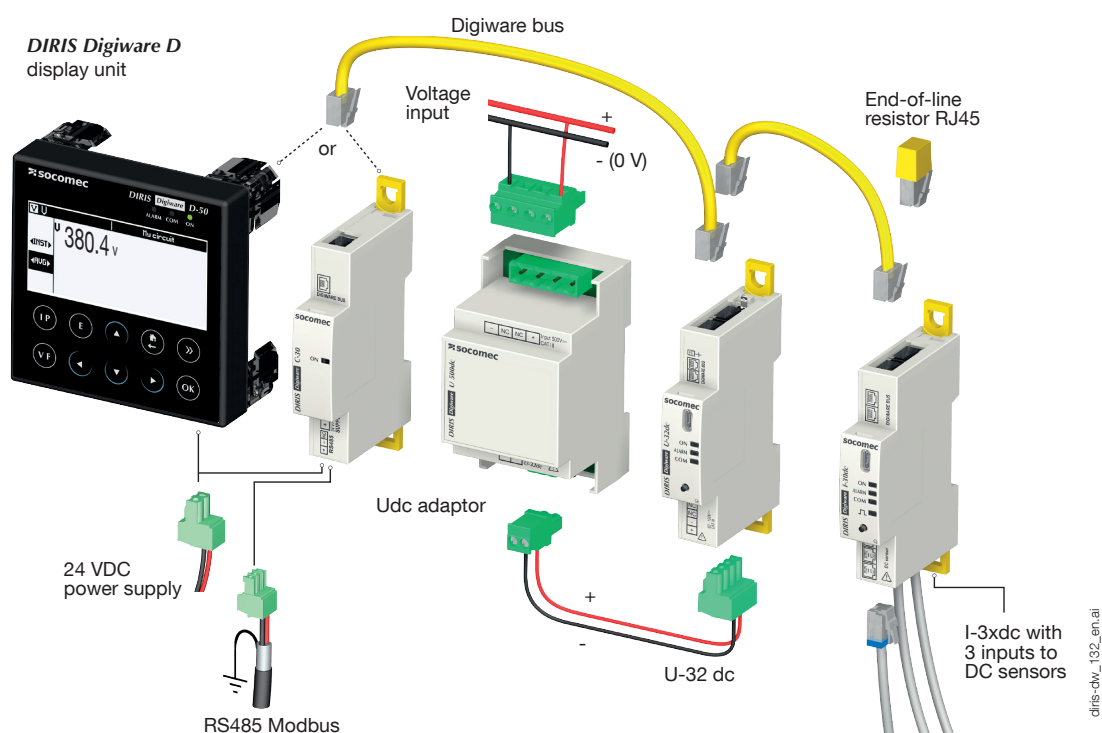
- Commissioning.
- Measurement consistency check to 3%.
- Measurement accuracy check to 0.2%.

For further information, please talk to your Socomec contact.

Application	DC voltage measurement	
		
DIRIS Digiware Udc	U-31dc	U-32dc
Nominal voltage range	24 ... 48 VDC	60 ... 150 VDC
Measuring range (min-max)	19.2 ... 60 VDC	48 ... 180 VDC
Multi-measurement		
DC voltage (VDC)	•	•
Quality analysis		
V ripple (voltage ripple)	•	•
V _{rms}	•	•
Alarms		
On threshold	•	•
Trends		
Average values	•	•
Format		
Width/number of modules	18 mm / 1	

Application	DC voltage adaptors		
			
DIRIS Digiware Udc	U500dc	U1000dc	U1500dc
Max. voltage range	200 ... 600 VDC	400 ... 1200 VDC	1200 ... 1650 VDC
Association			
U-32dc	•	•	•
Format			
Width/number of modules	54 mm/3		

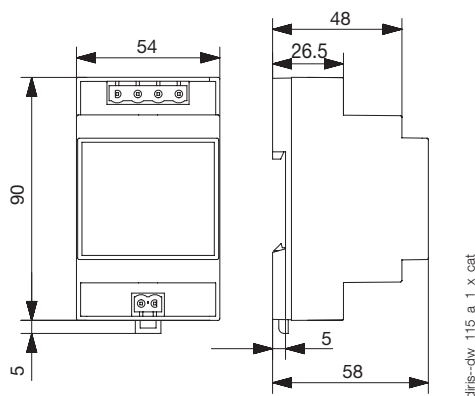
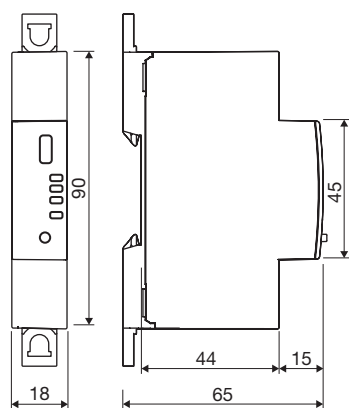
Connections



Dimensions (mm)

DIRIS Digiware U-3xdc

DIRIS Digiware adaptors U500dc/U1000dc/U1500dc



Technical characteristics

Measurement characteristics

DC voltage measurement - DIRIS Digiware U	
Characteristics of the network measured (min-max)	Without adaptors: U-31dc: 19.2 - 60 VDC U-32dc: 48 - 180 VDC With adaptor: U-32dc + adaptor U500dc: 200...600 VDC U-32dc + adaptor U1000dc: 400 - 1200 VDC U-32dc + adaptor U1500dc: 1200 - 1650 VDC
Voltage measurement accuracy without adaptor	Class 0.5 IEC 61557-12
Voltage measurement accuracy with adaptor	Class 1 IEC 61557-12
Connection without adaptor	Removable screw terminal block, 2 positions, stranded or solid 0.2 - 2.5 mm ² cable
Connection with adaptor	Adaptor input: removable screw terminal block, 4 positions, stranded or solid 0.2 - 2.5 mm ² cable Adaptor output: removable screw terminal block, 2 positions, stranded or solid 0.2 - 2.5 mm ² cable
Module power consumption	0.6 VA

Mechanical characteristics

Case type	Modular for DIN-rail and backplate mounting
Case Ingress Protection rating	IP20 / IK06
Front panel Ingress Protection rating	IP40 front face in modular assembly / IK06
Weight	64 g

Environmental characteristics

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

Communication characteristics

USB	
Protocol	Modbus RTU over USB
Function	Configuration of DIRIS Digiware modules
Location	On each DIRIS Digiware measurement module
Connection	Type B micro USB connector
Digiware bus	
Function	Connection between DIRIS Digiware modules
Cable type	Specific Socomec cable with RJ45 connections

References

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 C and D)		4829 0180
USB configuration cable		4829 0050

DIRIS Digiware		Reference
U-31dc	Voltage measurement 19.2 ... 60 VDC	4829 0150
U-32dc	Voltage measurement 48 ... 180 VDC	4829 0151
U500dc	Voltage adaptor 200 ... 600 VDC	4829 0153
U1000dc	Voltage adaptor 400 ... 1200 VDC	4829 0154
U1500dc	Voltage adaptor 1200 ... 1650 VDC	4829 0155