

DIRIS Digiware Udc

DC voltage acquisition module



DIRIS Digiware U-31dc/U-32dc



DIRIS Digiware U500dc/U1000dc/U1500dc adaptor

Configuration with Easy Config System.

Function

The **DIRIS Digiware U-3xdc** module measures 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…).
The voltage adaptors make the system compatible with all voltage levels up to 1650 VDC to respond to 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

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

Flexible

- The 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 configuration 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.

Compliance with standards

- IEC 61557-12
- ISO 14025
- UL E257746

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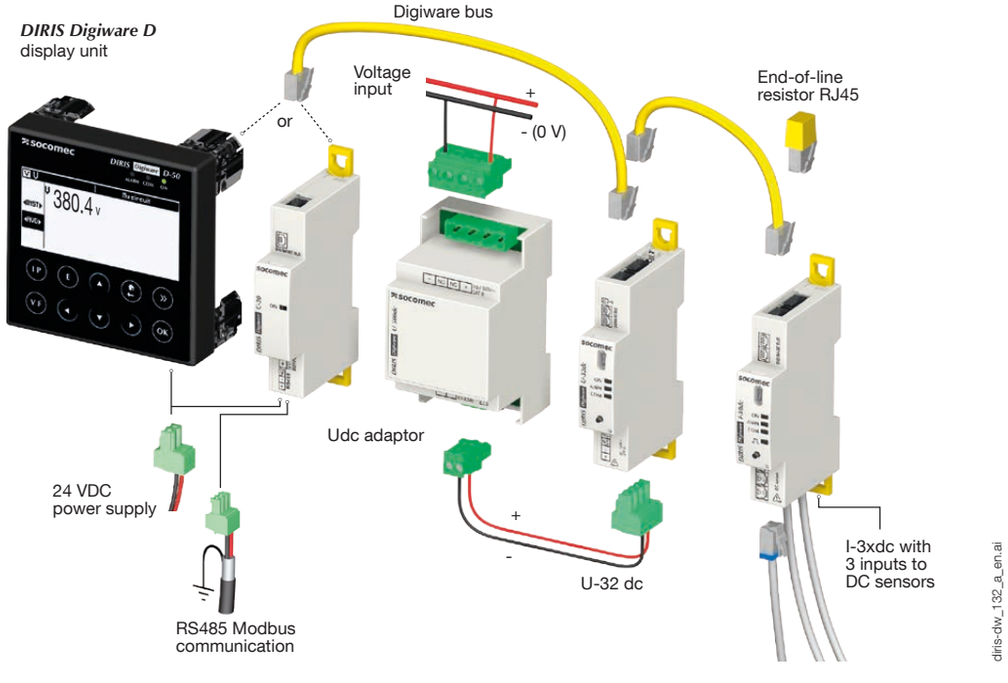
Application	DC voltage measurement	
		
DIRIS Digiware Udc	**U-31dc**	**U-32dc**
Nominal voltage range	24 … 48 VDC	60 … 150 VDC
Measuring range (min-max)	19.2 … 60 VDC	48 … 180 VDC
Multi-measurement		
DC voltage (VDC)	•	•
Power quality		
V ripple (voltage ripple)	•	•
V_{rms}	•	•
Alarms		
Thresholds and combinations	•	•
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

Connecting DIRIS Digiware DC adaptors



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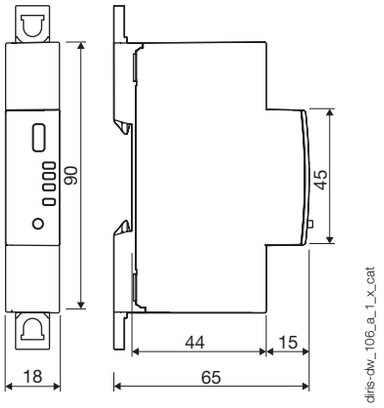
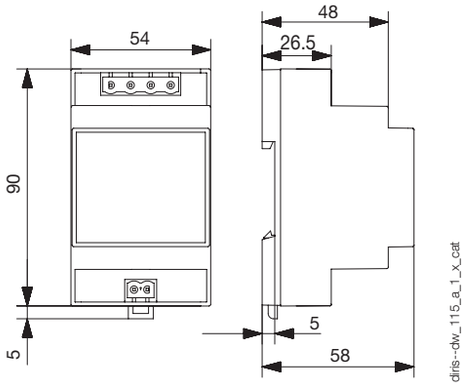
Dimensions (mm)

DIRIS Digiware U-3xdc



DIRIS Digiware adaptors U500dc/U1000dc/U1500dc



Technical characteristics

Measurement characteristics

DC voltage measurement - DIRIS Digiware U	
Features 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 mm² cable
Connection with adaptor	Adaptor input: removable screw terminal block, 2 positions, stranded or solid 0.2 … 2.5 mm² cable Adaptor output: removable screw terminal block, 2 positions, stranded or solid 0.2 … 2.5 mm² cable
Module power consumption	0.6 VA

Mechanical features

Casing type	DIN-rail mounting module and base
Casing protection index	IP20/IK06
Front panel protection index	IP40 front face in modular assembly/IK06
Weight	64 g

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

Communication specifications

USB	
Protocol	Modbus RTU on 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

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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**
	Reel 50 m + 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**