



DIRIS Digiware Udc

DC voltage measurement module



DIRIS Digiware U-31dc/U-32dc

diris-dw_116_a



DIRIS Digiware U500dc/U1000dc/U1500dc adaptor

diris-dw_005_a_cat



Configuration with EasyConfig, see page 280.

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 center
- > Telecommunication
- > Renewable power
- > Transportation



Strong points

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



RJ45 (Digiware Bus) cables are available.

Conformity to standards

- > UL 61010 guide FTRZ/PICQ file E257746



- > IEC 61557-12





- > ISO 14025






Test Equipment Depot
1-800-517-8431

99 Washington Street
Melrose, MA 02176
Phone 781-665-1400
Toll Free 1-800-517-8431

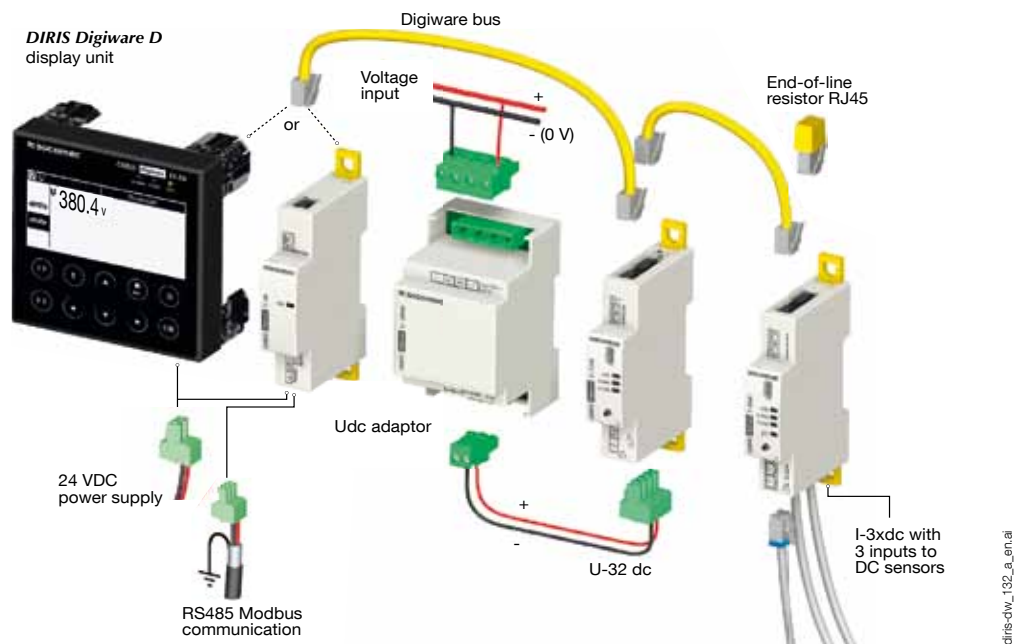
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Application	DC voltage measurement	
		
DIRIS Digiware Udc	U-31dc	U-32dc
Nominal voltage range	24 ... 48 VDC	60 ... 150 VDC
Measuring range (min-max)	19.2 ... 60 VDC	48 ... 180 VDC
Multi-measurement		
DC voltage (VDC)	•	•
Power quality		
V ripple (voltage ripple)	•	•
V _{rms}	•	•
Alarms		
Thresholds and combinations	•	•
Trends		
Average values	•	•
Format		
Width/number of modules	0.71 in / 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	2.13 in / 3		

Connections

DIRIS Digiware DC wiring with optional Udc voltage adaptors

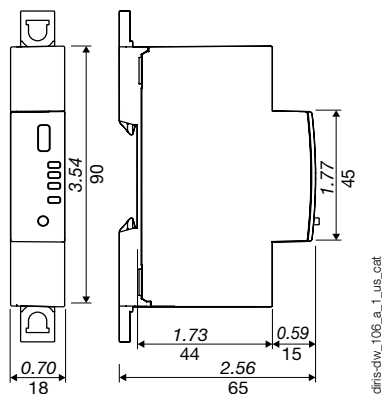


DIRIS Digiware Udc

DC voltage measurement module

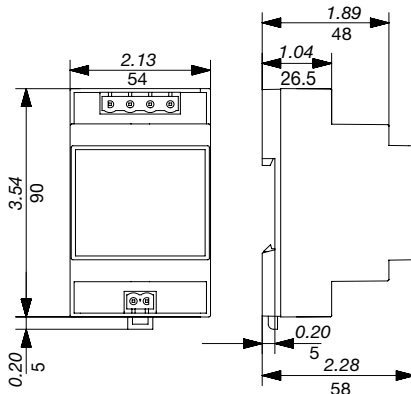
Dimensions (in/mm)

DIRIS Digiware U-3xdc



diris-dhw_106_a_1_us_cat

DIRIS Digiware adaptors U500dc/U1000dc/U1500dc



diris-dhw_115_a_1_us_cat

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, AWG 10 ... AWG 32 or 0.2 ... 2.5 mm ² stranded or solid cable
Connection with adaptor	Adaptor input: Removable screw terminal block, 2 positions, AWG 10 ... AWG 32 or 0.2 ... 2.5 mm ² stranded or solid cable Adaptor output: Removable screw terminal block, 2 positions, AWG 10 ... AWG 32 or 0.2 ... 2.5 mm ² stranded or solid 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 / 2.26 oz

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

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

References

Digiware connection cables		Part number
RJ45 cables for Digiware Bus	Length 0.20 feet / 0.06 m	4829 0189
	Length 0.32 feet / 0.10 m	4829 0181
	Length 1.64 feet / 0.50 m	4829 0182
	Length 3.28 feet / 1 m	4829 0183
	Length 6.56 feet / 2 m	4829 0184
	Length 16.4 feet / 5 m	4829 0186
	Length 32.8 feet / 10 m	4829 0187
	164 feet / 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		Part number
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

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