

# DIRIS Digiware Udc

## DC voltage measurement 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, etc.).

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

- 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

- > Telecommunication
- > Renewable power
- > Transportation
- > Data center



### Strong points

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

### Conformity to standards

- > UL 61010-1, CSA-C22.22 No. 61010-1, Guide FTRZ/PICQ, File E257746



- > IEC 61557-12





- > ISO 14025




### Create your project

- > Find the best DIRIS Digiware configuration:

[www.meter-selector.com](http://www.meter-selector.com)



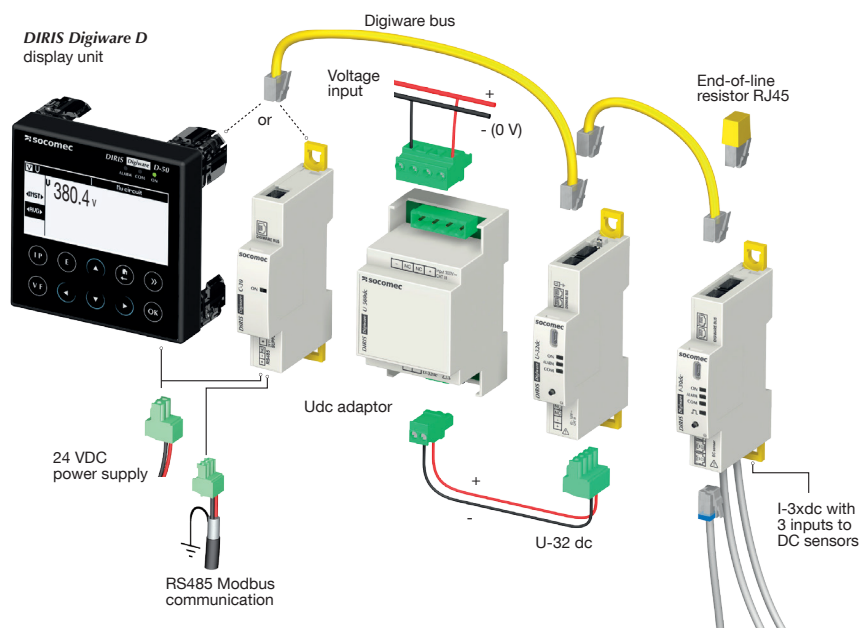
Application	DC voltage measurement	
		
<i>DIRIS Digiware Udc</i>	<i>U-31dc</i>	<i>U-32dc</i>
<b>Voltage measurement range</b>		
Nominal range	24 ... 48 VDC	60 ... 150 VDC
Min-Max range	19.2 ... 60 VDC	48 ... 180 VDC
<b>Multi-measurement</b>		
DC voltage (VDC)	•	•
<b>Power Quality</b>		
V ripple (voltage ripple)		•
$V_{rms}$		•
<b>Alarms</b>		
Measurement Thresholds		•
<b>History</b>		
Average values		•
Reference	4829 0150	4829 0151

Application	DC voltage adaptors		
			
<i>DIRIS Digiware Udc</i>	<i>U500dc</i>	<i>U1000dc</i>	<i>U1000dc</i>
Max. voltage range	200 - 600 VDC	400 - 1200 VDC	1200 - 1650 VDC
Udc module association	U-32dc	U-32dc	U-32dc
Reference	4829 0153	4829 0154	4829 0155

(1) U500dc, U1000dc and U1500dc modules can only be associated to the DIRIS Digiware U-32dc module.

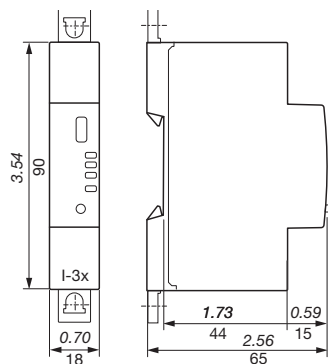
## Connections

### DIRIS Digiware DC wiring with optional Udc voltage adaptors



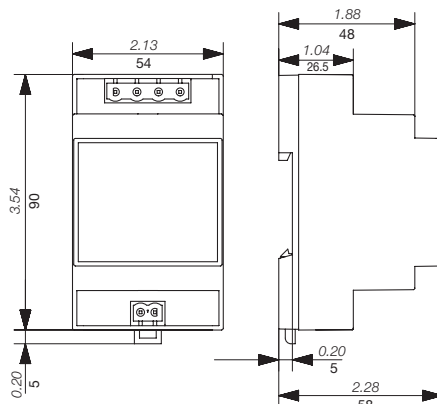
## Dimensions (in/mm)

DIRIS Digiware U-3xdc



diris-0w\_108\_a\_1\_us\_cat

DIRIS Digiware adaptors  
U500dc/U1000dc/U1500dc



diris-0w\_115\_a\_1\_us\_cat

## Technical characteristics

### Measurement characteristics

Voltage range (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
Voltage measurement accuracy with adaptor	Class 1
Connection without adaptor	Removable screw terminal block, 2 positions, AWG 14 ... AWG 24 / 0.25 ... 2.5 mm <sup>2</sup> stranded or solid cable
Connection with adaptor	Adaptor input: Removable screw terminal block, 2 positions, AWG 14 ... AWG 24 / 0.25 ... 2.5 mm <sup>2</sup> stranded or solid cable Adaptor output: Removable screw terminal block, 2 positions, AWG 14 ... AWG 24 / 0.25 ... 2.5 mm <sup>2</sup> stranded or solid cable
Power consumption	0.6 VA

### Mechanical characteristics

Mounting	DIN-rail or back plate
Protection degree	IP20, front face
Weight	2.26 oz / 64 g

### Environmental characteristics

Operating temperature	+14 °F ... +158 °F / -10 ... +70 °C
Storage temperature	-13 °F ... +158 °F / -25 ... +70 °C
Operating humidity	0% to 97% RH / +131 °F / +55 °C, non condensing
Operating altitude	≤ 6560 ft / 2000 m

### Communication characteristics

<b>USB</b>	
Connection type	USB Type Micro-B
Protocol	Modbus RTU over USB
Function	Firmware upgrade and configuration
<b>Digiware bus</b>	
Connection type	Socomec RJ45 cable
Function	Proprietary bus connecting Digiware units

## References

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

Accessories		Reference
Digiware Bus terminating resistor (already supplied with DIRIS Digiware C, M & D)		4829 <b>0180</b>
6.5-ft USB Cable for configuration - Type A to Type Micro-B		4829 <b>0050</b>

Digiware bus cables <sup>(1)</sup>		Reference
RJ45 cables for Digiware Bus	Length 0.20 ft / 0.06 m	4829 <b>0189</b>
	Length 0.32 ft / 0.10 m	4829 <b>0181</b>
	Length 0.66 ft / 0.20 m	4829 <b>0188</b>
	Length 1.64 ft / 0.50 m	4829 <b>0182</b>
	Length 3.28 ft / 1 m	4829 <b>0183</b>
	Length 6.56 ft / 2 m	4829 <b>0184</b>
	Length 9.84 ft / 3 m	4829 <b>0190</b>
	Length 16.4 ft / 5 m	4829 <b>0186</b>
	Length 32.8 ft / 10 m	4829 <b>0187</b>
	164.04 ft / 50 m reel + 100 connectors	4829 <b>0185</b>

*(1) To guarantee the proper operation of the DIRIS Digiware system, do not substitute Socomec Digiware bus cables with standard Ethernet RJ45 cables.*

Commissioning		Reference
1/2 day remote commissioning	Remote commissioning including installation verification, programming and communication testing	92301 <b>00027</b>
1/2 day on-site commissioning	On-site commissioning including installation verification, programming and communication testing	92301 <b>00004</b>

## Expert Services

Our service engineers are an essential part of our team, and they are dedicated to ensuring your power monitoring system provides accurate and reliable measurements to your EPMS software or SCADA system.

Our services include:

- > Site audits to verify the proper wiring of your system
- > Personnel training on how to configure, operate and maintain power monitoring equipment and associated software
- > Remote and on-site commissioning to ensure that your system is up and running quickly, with peace of mind.

For further information, please contact your nearest SOCOMEC branch.

