

DIRIS Digiware U

Voltage measurement module



DIRIS Digiware U-10/U-30



Configuration with Easy Config System

Function

The **DIRIS Digiware U** module is designed to accurately measure voltage for the entire DIRIS Digiware system.

The Digiware RJ45 Bus facilitates the transmission of voltage measurements, power supply, and communication to all connected Digiware modules.

Advantages

Safe

No hazardous voltage on panel doors, as the DIRIS Digiware U module is DIN rail mounted inside the electrical panel.

Flexible

Compatible with all electrical service types up to 520 VAC L-L:

- single phase
- two-phase (with or without neutral)
- three-phase (with or without neutral)

Compact for multi-circuit applications

- A single voltage reference point for the entire DIRIS Digiware system
- Eliminates the need for redundant protective devices, a single protection is needed for the entire system

Comprehensive

A complete solution for metering, monitoring and power quality analysis of the supplied voltage.

The solution for

- > Industry
- > Building
- > Infrastructures
- > Data center



Strong points

- > Safe
- > Compact
- > Flexible
- > Comprehensive

Conformity to standards

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



- > IEC 61557-12



- > ISO 14025



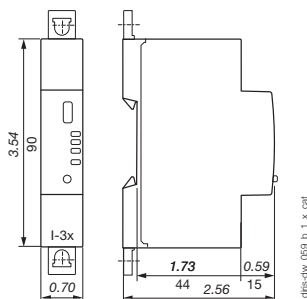
Create your project

- > Find the best DIRIS Digiware configuration: www.meter-selector.com



| Application | Voltage measurement module | |
|---|---|---|
| | Metering | Analysis |
| |  |  |
| DIRIS Digiware U | U-10 | U-30 |
| Electrical | | |
| Voltage Measurement | 50 - 300 VAC L-N 87 - 520 VAC L-L | 50 - 300 VAC L-N 87 - 520 VAC L-L |
| Multi-measurement | | |
| U12, U23, U31, V1, V2, V3, f | • | • |
| U system, V system | | • |
| Unbalance U, V | | • |
| Power Quality | | |
| THD U, V | | • |
| Individual Harmonics U, V (up to 63rd) | | • |
| PQ Events (sags, swells, interruptions) | | • |
| Waveform capture | | |
| Alarms | | |
| Measurement Threshold | | • |
| System alarms | • | • |
| History | | |
| Average values | | • |

Dimensions (in/mm)



Technical Characteristics

| Mechanical characteristics | |
|-----------------------------------|---|
| Mounting type | DIN-rail or back plate |
| Ingress protection | IP20, front face |
| Electrical characteristics | |
| Voltage range | 50-300 VAC (Ph/N) - 87-520 VAC (Ph/Ph) - CAT III |
| Permanent overload | 300 VAC (Ph/N) |
| Electrical Network (Service) type | Single-Phase - Two-Wire, Line-to-Neutral Single-Phase - Two-Wire, Line-to-Line Single-Phase - Three-Wire (Split-Phase) Three-Phase - Three-Wire (Delta) Three-Phase - Four-Wire (Wye) Three-Phase - Four-Wire High-Leg Delta |
| Frequency range | 45 ... 65 Hz |
| Input consumption | ≤ 0.1 VA |
| Connection | Removable screw terminal block, 4 positions, AWG 14 ... AWG 24 / 0.25 ... 2.5 mm ² solid cable or stranded cable with ferrule |

| Measurement characteristics | |
|--------------------------------|---|
| Sampling rate | 9.6 kHz |
| Voltage measurement accuracy | Class 0.2 |
| Frequency measurement accuracy | Class 0.02 |
| Communication characteristics | |
| Digiware Bus | |
| Connection type | Socomec RJ45 cable |
| Function | Proprietary bus connecting Digiware units |
| USB | |
| Connection type | USB Type Micro-B |
| Protocol | Modbus RTU over USB |
| Function | Firmware upgrade and configuration |
| Environmental characteristics | |
| Storage temperature | -4 to +158 °F / -20 to +70°C |
| Operating temperature | +14 to +158 °F / -10 to +70°C |
| Humidity | 0% to 97% RH / +131°F/+55°C, non condensing |
| Operating altitude | ≤ 6560 ft / 2000 m |

References

| DIRIS Digiware U | | Reference |
|------------------|---------------------------------------|-----------|
| U-10 | Basic - voltage measurement | 4829 0105 |
| U-30 | Analysis - power quality and alarming | 4829 0102 |

| Accessories | To be ordered in multiples of | Reference |
|---|-------------------------------|-----------|
| 3-pole RM Class CC fuse holder to protect voltage inputs | 4 | 5705 0003 |
| Digiware Bus terminating resistor (already supplied with DIRIS Digiware C, M & D) | 1 | 4829 0180 |
| 6.5-ft USB Cable for configuration - Type A to Type Micro-B | 1 | 4829 0050 |

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

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