



DIRIS G

RS485 to Ethernet communication gateways



DIRIS G-30 / G-50
RS485 / Ethernet



Configuration with EasyConfig.

Function

With **DIRIS G** communication gateways, all the information from meters and power monitoring devices, communicating by RS485, is centralized and made available on the Ethernet Modbus (TCP).

DIRIS G gateways can retrieve data from meters or Socomec remote measuring points via Ethernet.

The gateway has an embedded WEBVIEW web server, allowing real time monitoring of electrical values and analysis of consumption data. The user can be alerted of any alarms via email.

Advantages

WEBVIEW⁽¹⁾ embedded web server

DIRIS G gateways include an embedded web server. Two versions are available:

- Power Monitoring:
 - Realtime measurements and alerts.
- Power & Energy Monitoring:
 - Realtime measurements and alerts.
 - Trends for selected parameters and energy consumption history and analysis.

Scalable

Several optional modules are available:

- Digital inputs/outputs.
- Analogue inputs/outputs.
- Temperature inputs.

Plug & Play

- Connected metering and measurement devices are automatically addressed and detected by the DIRIS G gateway. These integrate the following:
 - Automatic time synchronisation (SNTP) with battery recording
 - Synchronisation of connected devices
 - Warning messages in the event of an alert (e-mail SMTP)
 - Automatic recording and storage of measurements and consumption data
 - Automatic tariff changes (multi-tariff).
- Data exported automatically via FTP server.

(1) See "WEBVIEW" pages.

The solution for

- > Industry
- > Building
- > Infrastructure
- > Local authority



Strong points

- > WEBVIEW embedded web server
- > Scalable
- > Plug & Play

Compliance with standards

- > IEC 61010




- > ISO 14025



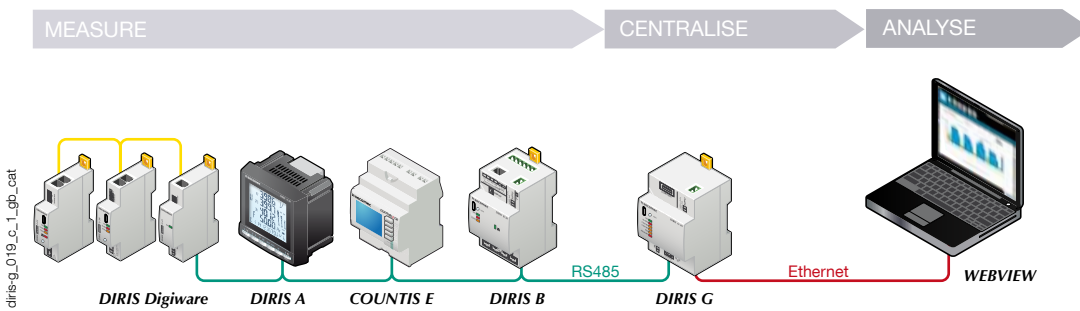
- > UL



	Communication gateways	
		
DIRIS	G-30	G-50
Communication		
RS485 Modbus	•	•
Ethernet	•	•
WEBVIEW embedded web server		
Power Monitoring	•	
Power & Energy Monitoring		•

Architecture

Example of communication architecture with DIRIS G gateway and WEBVIEW embedded WEB server



Embedded web server

WEBVIEW embedded web server

- Version Power Monitoring: embedded in DIRIS G-30.
- Version Power & Energy Monitoring: embedded in DIRIS G-50.
- 32 devices max.



DIRIS O optional modules

A maximum of 4 optional modules can be connected to a DIRIS G gateway in order to integrate controls/ commands.

DIRIS O-iod	2 digital inputs / 2 digital outputs
DIRIS O-ioa	2 analogue inputs / 2 analogue outputs
DIRIS O-it	3 temperature inputs
DIRIS O-m	Additional slave RS485 communication

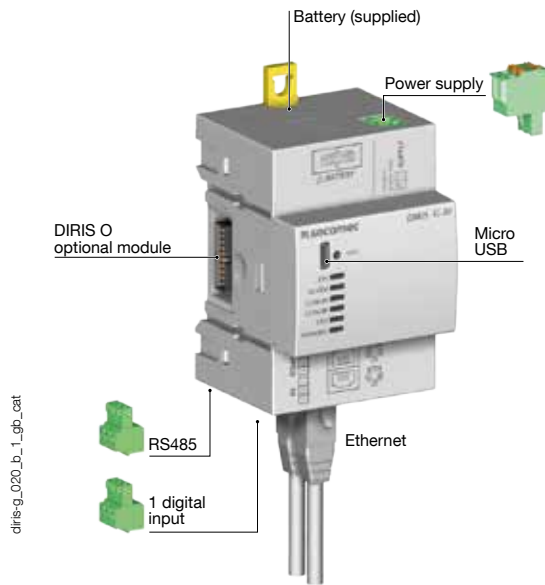


Accessories

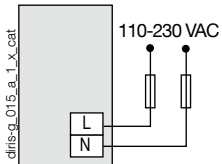
USB configuration cable

- Configuration of DIRIS G gateways can be achieved using EASY CONFIG software via Ethernet or direct USB connection.

DIRIS G terminals

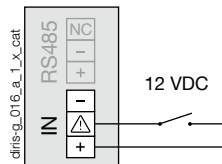


Power supply

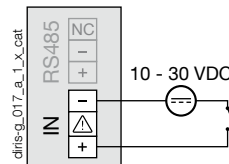


NC: not connected

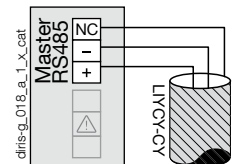
Input powered by the product



Input with external power supply



RS485

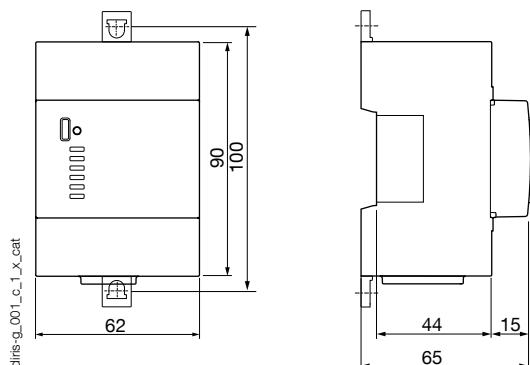


Terminals of DIRIS O optional modules

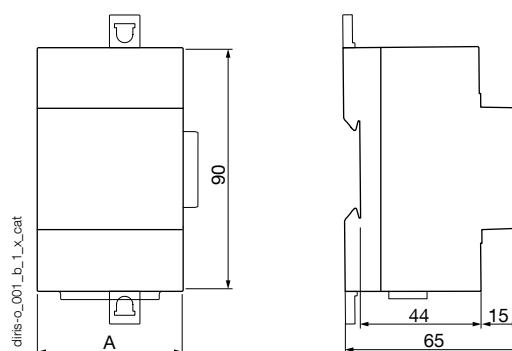
Optional modules are common to DIRIS B Power Monitoring Devices.
For a description of the terminals see "DIRIS B" pages.

Dimensions (mm)

DIRIS G-30 / G-50



DIRIS O optional modules



DIRIS O optional modules	A
DIRIS O-iod - DIRIS O-ioa - DIRIS O-it - DIRIS O-m	45 mm

Specifications

Mechanical specifications

Casing type	DIN-rail mounting module and base
Case degree of protection	IP20 / IK06
Front degree of protection	IP40 on the nose in modular assembly / IK08
Weight	DIRIS G-30, G-50 = 190 g

Electrical characteristics

Power supply	
Alternative voltage	110-230 VAC ±15% (Ph/N or Ph/Ph) Cat III
Frequency	50/60 Hz
Power consumption	6 VA
Battery	CR 1220 3 V lithium button cell battery

Input

Number	1
Type / Power supply	Optocoupler internal polarisation (12 VDC ±10%) or external (10-30 VDC ±10%)
Input function	Logic status, pulse meter or synchronisation pulse status

Communication specifications

DIRIS G	
Link	RS485
Connection type	2 ... 3 half duplex wires
Protocol	Modbus RTU
Baudrate	2400 ... 115200 bauds
Function	Communication with PMDs and meters

Ethernet

Link	Ethernet 10/100 base-T, 2 RJ45 bases with integrated switch
Protocol	Modbus TCP (port 502), Modbus RTU over TCP (port 503), HTTP, SMTP, SNTP, DHCP, FTP (G-50)
Clock	Internal
SNTP protocol	Gateway time updating from an NTP server. Connected PMDs time updating.
SMTP protocol	Sending of alarm emails from the gateway
Function	Configuration of the gateway, connected PMDs and meters Access to the WEBVIEW web server, data centralisation

USB

Connection type	USB 2 (required installation of Easy Config)
Protocol	Modbus RTU on USB
Function	Configuration of the gateway, connected PMDs and meters
Connection	Type B micro USB connector

Memory characteristics

Consumption history (memory extension for meters and measurement units)	1 year (1 hour period)
Electrical values	2 months (10 min period)
Number of events	Alarms 1000 Network quality according to EN 50160: 1000

Environmental specifications

Ambient operating temperature	-10 ... +70°C
Storage temperature	-25 ... +85°C
Operating humidity	55°C / 97% HR

References

DIRIS G gateways		Reference
DIRIS G-30	RS485 / Ethernet - WEBVIEW Power Monitoring	4829 0300
DIRIS G-50	RS485 / Ethernet - WEBVIEW Power & Energy Monitoring	4829 0302
DIRIS O optional modules		Reference
DIRIS O-iod	2 digital inputs / 2 digital outputs	4829 0030
DIRIS O-ioa	2 x 4-20 mA analogue inputs / 2 x 4-20 mA analogue outputs	4829 0031
DIRIS O-it	3 temperature inputs, PT100/PT1000	4829 0032
DIRIS O-m	RS485 modbus slave communication	4829 0033
Accessories		To be ordered in multiples of
USB configuration cable		4829 0050
Fuse holders to protect the auxiliary power supply (type RM) 1 pole + neutral		6 5601 0017
gG 10x38 0.5 A fuses		10 6012 0000