Product Datasheet

GDS100LG · GDS100LL

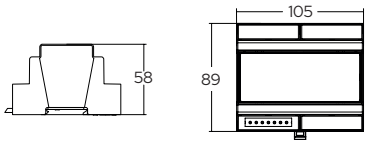
Multifunctional electrical panel controller

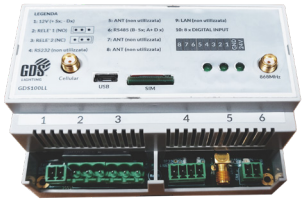
ModBUS · 12-24 V · Monitoring · IP20

Product available in 2 models: GDS100LG for the control of electrical panels only and GDS100LL for the control of electrical panels and nodes. Both equipped with 4G (LTE) connectivity, they were created for the local or remote management of small, medium and large-sized systems. With the RS485 port, the devices can communicate with any device that uses the ModBUS protocol, in reading and writing. For example: MID meters for detecting the electrical quantities of the panel. The devices are able to send alarms coming from the system via 8 available open contacts, as well as processing data coming from the power meter. The GDS100LL model is able to communicate with the GDS nodes installed on the devices via radio waves in the 868 MHz frequency.

This allows timely monitoring of the status of the devices installed to adopt predictive diagnostic and management policies for the public lighting system.

- Panel remote control functions
- Public lighting management
- Suitable for industrial, tertiary and tunnel use
- ModBUS RTU
- 8 entrances
- Optional 868 Mhz communication functionality

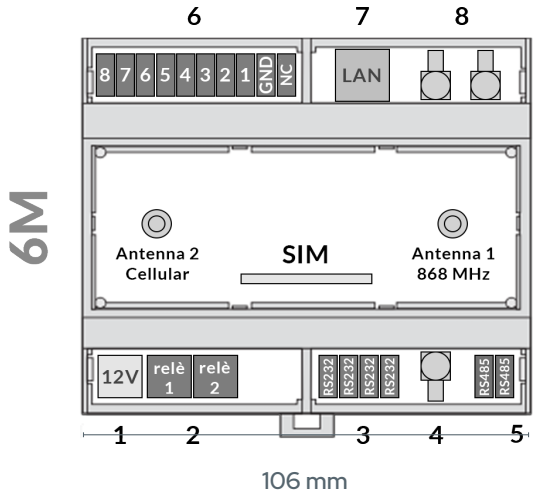




GDS100LL Model

TECHNICAL FEATURES	
General	• Processor: ARM Cortex - A7 • RAM: 512 MB • Non-volatile memory: 4 GB • Linux OS
Astronomical clock	Automatic calculation of the moments of switching on and off of the systems based on the latitude and longitude of the installation site with automatic adaptation to the different length of the day during the year. Possibility of inserting personalized "offsets" to delay or bring forward switching on and off
Power meters	Through RS485 ModBUS: • Voltage of each phase; • Absorbed current of each phase; • PF, of each phase and total; • Active power absorbed, of each phase and total; • Reactive power absorbed, of each phase and total; • Apparent power absorbed, of each phase and total; • Active energy absorbed, total; • Reactive energy absorbed, total
Alarm management	• Alarms for voltage and differential current values higher and/or lower than expected data; • Phase-by-phase differentiated alarms for values higher and/or lower than the expected data of the absorbed current and active power; • Possibility of distinguishing threshold alarms between day and night regimes (identifiable based on the astronomical clock): in daytime mode, possibility of enabling energy theft even during the day and alarms relating to consumption outside the threshold, currents and televisions; • Alarms from GDS nodes
Connectivity	RS485 port for connection with ModBUS RTU modules; USB local programming port; 100Mbps Ethernet port; integrated 4G (LTE) module
Expandability	RS485 port that can be configured to manage ModBUS expansion modules
Operating temperature	-20°C +45°C
Accessories	MID power meter; 230 Vac power supply; Backup battery (up to half an hour of autonomy via integrated backup battery in case of absence of primary power)

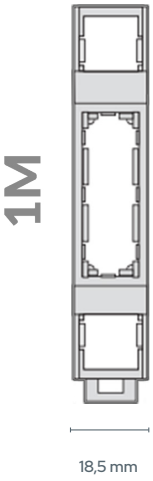
CONNECTIONS



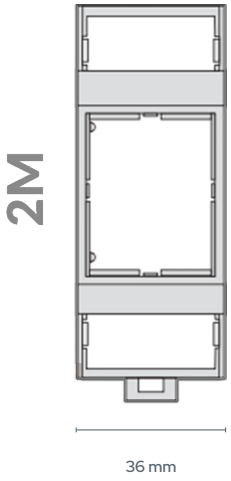
1. 12V power supply
2. Relè 1 e Relè 2
3. RS232
4. SMA
5. RS485 (ModBUS)
6. 8 INPUT + GND
7. LAN
8. 2 x SMA

ACCESSORIES

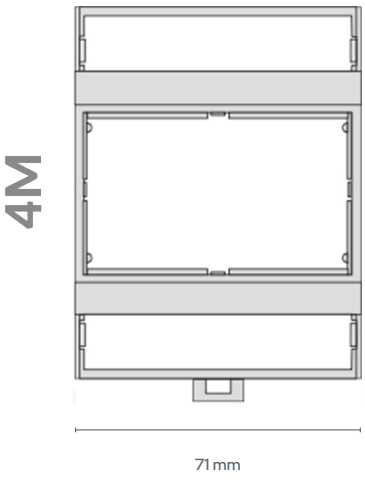
Power supply
220 Vac - 12 Vdc



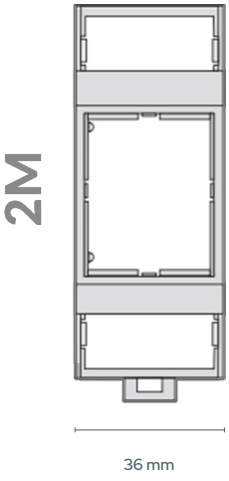
Battery
Backup



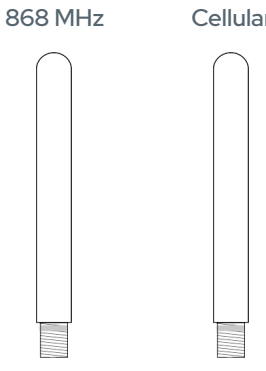
Meter MID
Three-phase



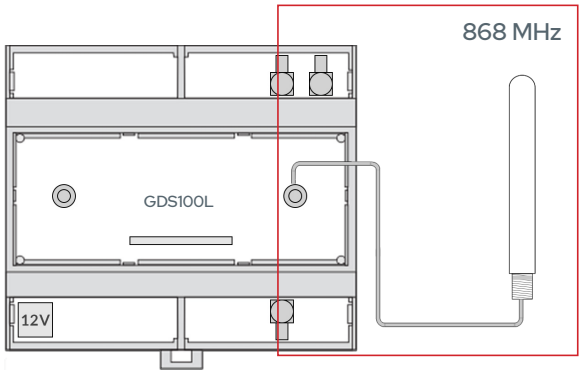
Meter MID
Single phase



ANTENNAS

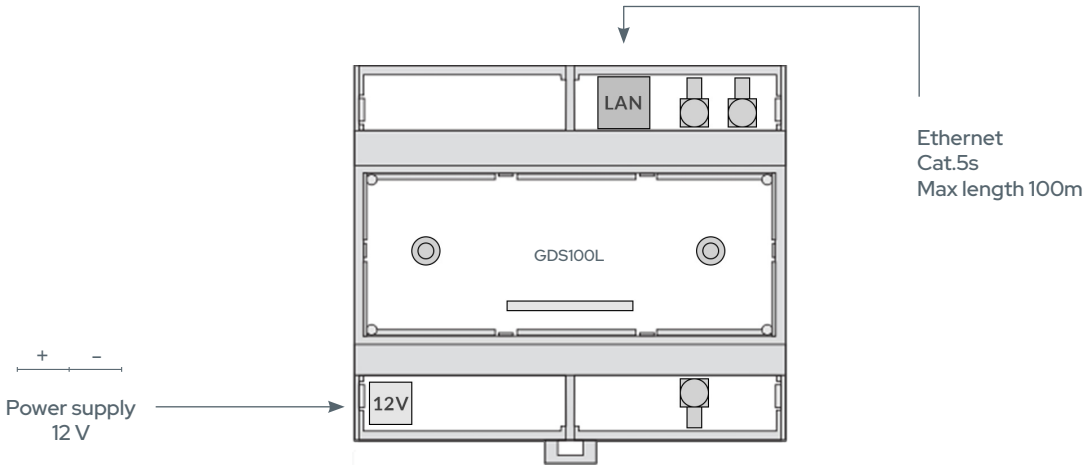


Antennas included:
IP20



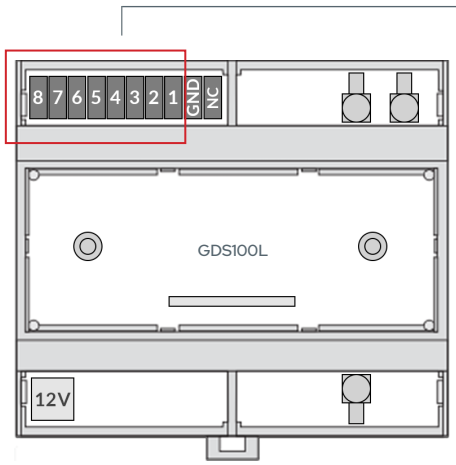
Antenna excluded:
868 MHz outdoor antenna - IP67 with mounting bracket

POWER AND ETHERNET



DIGITAL INPUTS

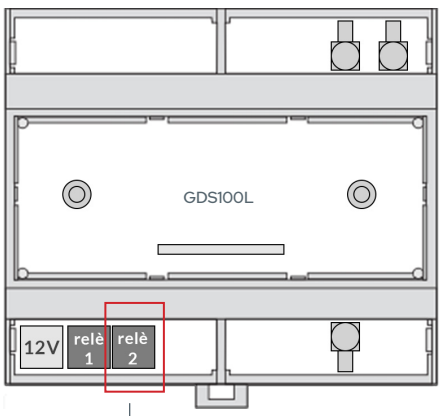
CONTROL BUTTONS



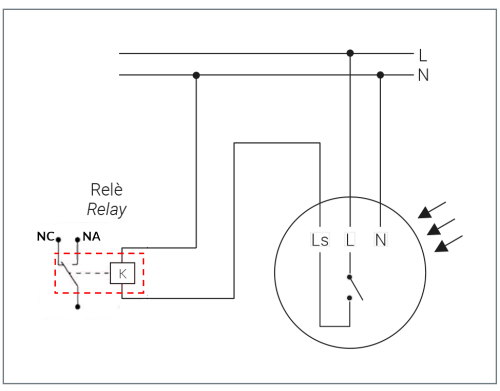
Potential-free digital inputs
for standard NO buttons.
Cat.5 or 5x0.35mm2 type cable.

1-8
INPUT

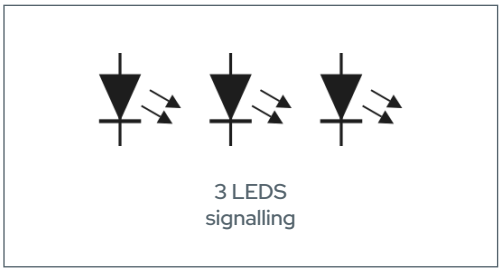
TWILIGHT SWITCH

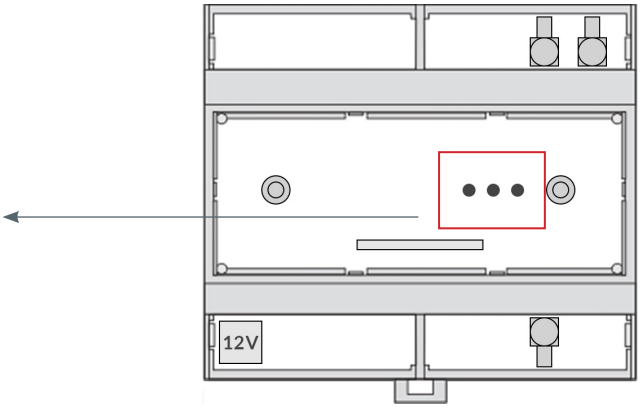


Astronomical switch backup connection



SIGNAL LED





LED 1

	LoRa
On	OK
Off	NOK
Flashing	Battery operated

LED 2

	4G
On	OK
Off	NOK
Flashing	Battery operated

LED 3

On	Power supply not usable