



Bridge LR PSDC

Bridge LR PSDC, LoRa to RS-485 converter with DC power supply,

Code: D80111.

Description

Bridge LR is a physical media conversion gateway, designed to communicate Modbus RTU devices via a LoRa™ Private (P2P) long-range wireless network. It acts as a bridge between the RS-485 bus and the LoRa™ Private (P2P) network, eliminating the need for physical cabling between master and slaves. Its compact design, suitable for DIN rail mounting (1 module), enables a straightforward installation adaptable to multiple environments.

This solution simplifies installation, reduces costs, and enables coverage of hard-to-access areas or places without network infrastructure. Each gateway can manage up to 32 Modbus RTU devices connected locally and supports an unlimited number of **Bridge LR** gateways distributed over the LoRa™ Private (P2P) network.

Each gateway operates as a Modbus slave with its own identifier, allowing direct and seamless integration with the master system while adhering to network size limitations and other specifications of the Modbus standard Protocol.

- Wireless radio communication with LoRa™ Private (P2P) protocol.
- Serial RS-485 Communication for Modbus RTU with the master.
- Remote configuration.
- Detachable external antenna.
- Operation as a Modbus slave with its own identifier in the network.

Application

Due to their wireless architecture and extended range, **Bridge LR** are ideal for distributed installations or difficult-to-access locations where wiring is impractical or costly. Typical applications include:

- Monitoring in industrial buildings with cabling limitations.
- Network extensions Modbus in existing installations without requiring civil works.
- Consumption refactoring in multi-user spaces such as hotels, coworking spaces, campgrounds, marinas, etc.
- Control of remote pumping stations in irrigation or potable water networks.
- Management of sensors or devices in farms, greenhouses, or rural installations lacking 4G or internet connectivity.
- Monitoring of photovoltaic strings in solar fields.



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Specifications

DC power supply

Installation category	CAT III 300 V
Consumption	1 W
Nominal voltage	9 ... 36 Vdc

Environmental characteristics

Protection class	IP 20
Relative humidity (without condensation)	5 ... 95 %
Working temperature	-10 ... +60 °C

Mechanical characteristics

Envelope	Plastic UL 94 - V0 self-extinguishing
Fastening	DIN rail
Weight (kg)	0,08

Communication Network

Protocol	Modbus RTU LoRa™ Private (P2P)
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Standards

Electrical safety, Maximum height (m)	2000
Standards	EN 61010-1, EN 61000-6-2, EN 61000-6-4

Electrical safety

Insulation	Double-insulated electric shock protection class II (IEC 61010-1)
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User interface

LED	3 LED
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Radio communication -Antenna

	Tilttable omnidirectional SMA antenna
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Radio communication

Band	Banda ISM de 868 Mhz (9 canales)
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Serial communication

Technology / Type	RS-485
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Bridge LR
LoRa™ / RS-485 Converter (Modbus/RTU)

CODE	TYPE	Description
LoRa		
D80110.	Bridge LR PSAC	LoRa to RS-485 Converter (Modbus/RTU) . AC power supply (110...264 Vac)
D80111.	Bridge LR PSDC	LoRa to RS-485 Converter (Modbus/RTU) . DC power supply (9 ... 36 Vdc)

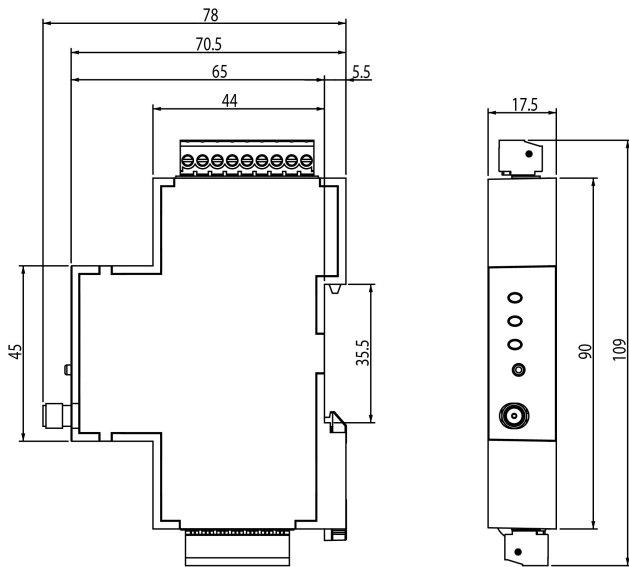


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Dimensions



Connections

