

LR1RS+

LoRa™ to RS-485 converter



Description

The **LR1RS+** is a device for converting between the RS-485 physical environment and the LoRa™ long-range wireless network. The unit is fully programmable through its software settings. Up to 32 slave devices can be connected to each communication bus. Communication between the master device and the slaves is completely wireless, thus allowing a more straightforward wireless installation which is also more economical.

- Wireless communication to LoRa™ protocol
- Modbus RTU/RS-485 protocol communication with the master
- Allows remote configuration
- Removable external antenna
- Unlimited number of slave converters per network, up to 32 devices per slave
- **LR1RS+ PSAC** DIN 46277 mounting (**EN-50022**), 1 Module **DIN 43880**
- **LR1RS+ PSDC** Adhesive fastening.

Applications

- For any installation that requires remote monitoring and low data refresh rates.
- Wireless monitoring of facilities, ensuring savings in the final cost.
- Ideal for monitoring photovoltaic strings, remote pumping stations, farms far from 3G coverage or with no Internet connection, industrial units without the option of wired connection.

Technical ratings

	Model	LR1RS+ PSAC	LR1RS+ PSDC
Power supply	Rated voltage	110...264 Vac	12 Vdc ±10%
	Frequency	47...63 Hz	-
	Maximum consumption	2.5...4.5 VA	1 W
	Installation category	CAT III 300 V	
Serial interface	Model	LR1RS+ PSAC	LR1RS+ PSDC
	Type	3-wire RS-485	2-wire RS-485
	Transmission rate	9600 - 19200 - 38400 - 57600 - 115200 bps	
	Data bits	8	
	Parity	none - even	
	Stop bit	1 - 2	
Wireless interface	Technology	LoRa™ ⁽¹⁾	
	Frequency (Europe)	868 MHz ISM band (9 channels)	
	Standard range	1 km indoors 20 km outdoors with direct line of vision	
User interface	LED	LED Power, Tx and Rx	
	Pushbutton	1	
Environmental ratings	Working temperature	-10...+60 °C	
	Relative humidity	5...95% without condensation	
	Maximum altitude	2000 m	
	IP rating	LR1RS+ PSAC IP 20	LR1RS+ PSDC IP 30
Electrical safety	Class II Double insulated		
Standards	EN 61010-1, EN 61000-6-2, EN 61000-6-4		

⁽¹⁾ The device is equipped with LoRa™ technology for private networks and is unable to connect to LoRaWAN networks.

LR1RS+

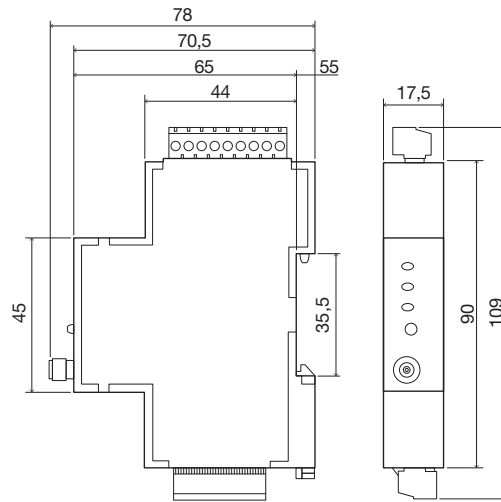
LoRa™ to RS-485 converter

References

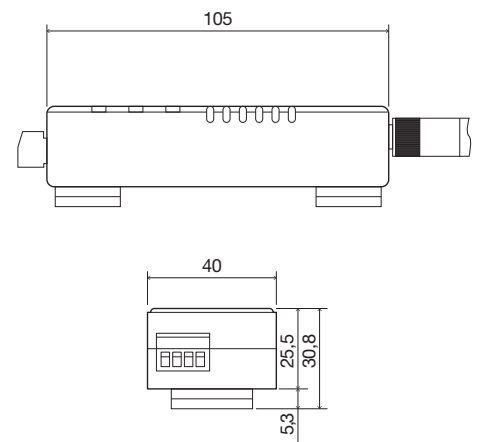
Type	Description	Code
LR1RS+ PSAC	LoRa™ to RS-485 converter with AC power supply	M6215A
LR1RS+ PSDC	LoRa™ to RS-485 converter with DC power supply	M6215C

Dimensions

LR1RS+PSAC

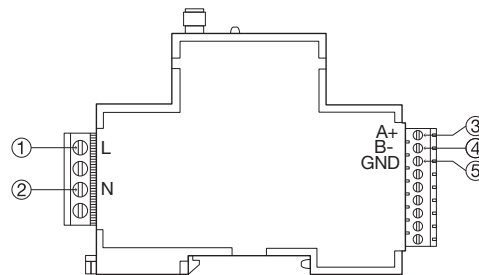


LR1RS+PSDC



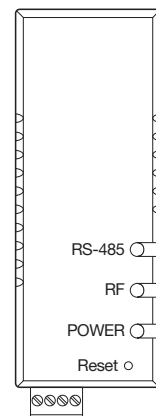
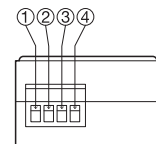
Connections

LR1RS+PSAC



- | | |
|---|--------------------|
| 1 | L, Auxiliary power |
| 2 | N, Auxiliary power |
| 3 | A(+), RS-485 port |
| 4 | B(-), RS-485 port |
| 5 | GND, RS-485 port |

LR1RS+PSDC



- | | |
|---|------------------------|
| 1 | 12(+), Auxiliary power |
| 2 | S(-), Auxiliary power |
| 3 | A(+), RS-485 port |
| 4 | B(-), RS-485 port |