

LPWAN DIN ModBus/RS485

PRODUCT DESCRIPTION

The LPWAN DIN ModBus/RS485 device is engineered for seamless integration with various ModBus/RS485 devices, including electric meters, industrial water meters, and calorimeters. Customers can also connect a range of RS485 probes, provided that the appropriate firmware is available. Initially, this device was developed for compatibility with INEPRO electric meters, whether single-phase or three-phase; however, it can be adapted for use with any other ModBus equipment, given that the ModBus register structure is documented. The ModBus/RS485 device is offered in a housing designed for DIN rail mounting. It is intended for indoor installation with an IP20 protection rating. Users can easily connect the device to ModBus equipment via the A and B wires, and it is powered directly from a 230V source. An option for battery power is also available. Due to the limitations on message length imposed by Sigfox, we provide only essential parameters from the connected electric meter. Other technologies can accommodate significantly longer messages, allowing users to specify the registers of interest.

USAGE

- Measurement of electrical energy
- Invoicing for electrical energy consumption
- Critical energy consumption oversight



FEATURES	PARAMETERS
Protection	IP68 – all electronic components are encapsulated in resin by default.
Operating temperature	-40 to +85 °C
Power source	230V, or alternatively, a 3.6V lithium battery with a capacity of 9000mAh in C size (not compatible with GSM – 230V version only)
Energy consumption	<50 μ A in deep sleep / 80 mA during transmission (Sigfox, LoRa) / 500 mA (NBIoT)
Battery lifespan	Approximately 30,000 transmissions
Supported LPWAN Standards	Sigfox, LoRaWAN, NB-IoT, GSM (one of the selected options upon request)
Dimensions	86 x 60 x 34 + antenna 50 mm
Weight	75g, or alternatively 130g with the battery
ModBus	RS485 interface featuring A/B wiring, configurable registers for NBIoT, LoRaWAN, and GSM.
Accuracy	Characterized by an interconnected electric meter
Antenna/standard range	Helical, achieving 2.5 dBi gain over a range of 45 to 110 km, contingent upon LPWAN technology.