

PIKA Pro- LoRaWAN Modbus Specifications

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Overview

IoT device PIKA is an easy and intelligent device dedicated to collecting data from on-site Modbus RTU / Modbus TCP devices, and transmitting them to the Internet via LoRaWAN. It can read up to 200 Modbus register addresses on 8 Modbus devices with the same configuration. Besides, PIKA supports configuring Modbus warning trigger values which can immediately send a Lora packet when Modbus data is out of settings. The feature supports importing and exporting Modbus registers files to CSV format, allowing users to easily manage effectively.

Specifications

Category

Specification

Wireless Transmission

LoRaWAN

Frequency: EU433, CN470, IN865, EU868, AU915, US915, KR920, RU864, AS923-1/2/3/4 (default AS923-2)

Tx Power: 16dBm (923 MHz)

Sensitivity: -137 dBm

Modbus Interface

Modbus RTU (Waterproof connector, 1200-115200bps)

Modbus TCP/IP (RJ45, optional)

Data Configuration

Port: Waterproof Type-C

Tool: WNE PC Tool Software

Physical Characteristics

Power: 6-24VDC (<5W)

Connector: Waterproof

Material: UV-resistant ASA, White

Ingress Protection: IP67

Operating Temp: -20°C~60°C

Humidity: 0-95% RH

Dimensions: 150×100×55 mm

Installation: Wall mounting

Others

Reset Button: Internal

Lora Antenna: 3dBi

Software Features

The PIKA device is configured via the COM port using the WNE Tool software, which allows setting up all device parameters and features :

- [Status Tab](#) – Display device status information.
- [LoRaWAN Setting](#) – regional band, class (A/C), join mode (OTAA/ABP), device & network identifiers, session keys, application port, data rate, transmit power, ADR, and retry options.
- [Modbus Setting](#) – Configure Modbus RTU/TCP parameters, register tables, CSV import/export, connection test.
- [Pulse Setting](#) – For pulse counter option.
- [Pressure Setting](#) – For pressure sensor option.
- [Basic Setting](#) – Configure Device ID, reporting interval, and password.
- [Serial Log](#) – Enable/disable serial port logging.
- [Run/Stop](#) – For Runt/Stop mode option

PIKA device supports the following LoRaWAN Downlink Commands including:

- [Change Reporting Interval](#).
- [Send an Immediate Report \(Class C\)](#).

Package Inclusions

1. 1 pc PIKA device
2. 1 pc 12V/1A Power Adapter (optional)
3. 1 pc Lora Antenna
4. 1 Type-C USB cable
5. 2 pcs Waterproof connector

Documentation

PIKA Pro User Manual