LP-C01

Industrial IoT Receiver

- Easy Plug & Play Integration into any control system via Modbus Communications
- High Dependability – Rugged Design for tough environments
- Improved Safety & Data Transfer Reliability
- Overall savings in capital investment cost
- Full AES 128-bit Encryption
- LoRa based Wireless technology
- Up to 2.5 mile range with 4dbi Fiberglass Antenna
- Connect Up to 128 LP Sensor Tech compatible devices and sensors
- Modbus Extender Bypass functionality – Easily extend your Modbus reach up to 10 mile

Key Features

Flexible Monitoring Application

Employ hardwired contact inputs, output controls, raw analog signals, or any custom device sensor from remote locations to the Control house or central PLC location without the need for new cables, digging trenches, or adding conduit. The encrypted communications provide a secure and reliable communication.

Easy Integration

LP-C01 supports plug and play setup to minimize parameter settings workload compared to other wireless data concentrator. It supports Modbus TCP/RTU which easily compatible with any PLC / Automation Controller.

Rugged Industrial Presentation

Rugged case design suitable for tough environments. Conformal coating on all electronic circuit boards.

Improved Safety & Data Transfer Reliability

Secured and encrypted wireless communications.
Replace control wiring to outside cabinets with wireless antenna, eliminating unnecessary outages or the need to go through existing paths with dangerous voltage levels.

Savings on Capital Cost Investments

Reduce project costs and time using wireless communication instead of traditional wired applications. No trench, conduit, or raceway requirements, less labor for design, documentation, installation, testing and maintenance. Additionally, with the Modbus communication, this device can be used for virtually any application in the automation and control industry.

Specifications

Compliance

Designed and manufactured under an ISO 9001 certified quality management system.

Notes:
It is a Class A product, and it may cause interference if used in residential areas. Such use should be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the RF source's radiating structure(s) and the body of the user or nearby persons.

SIMPLIFIED EU DECLARATION OF CONFORMITY: Hereby, LP Sensor Technology declares that the radio equipment type LP-C01 is in compliance with Directive 2014/53/EU.

Frequency Band:
Uplink: 868.1 MHz, 868.3MHz, 902.5 MHz, 914.9 MHz

Downlink: 868.1 MHz, 868.3MHz, 903 MHz, 914.2 MHz

Power Supply
10-30VDC, 3 Watts maximum

Communications
Wireless communication encryption: AES 128-bit

Supported LoRa Wireless Frequencies:
915MHz (US), 868 MHz (EU)

Wireless Channel: Single (72 Different Frequency Channels selectable for US915)

Antenna: External
128 maximum nodes supported at each channel.
Latency between node switching: <10ms
Spread Factor: SF7- SF12
Maximum wireless communication range:
2.5 mile (with 4db Antenna installed)

Output Protocols:
- Modbus TCP
- Modbus RTU

Ports:
Ethernet RJ45 10/100 Mbps
RS485 Serial Port: 9600 bps - 115200 bps
USB-C: Settings port

Dimensions
6.02"(L)*5.62mm(W)*1.62(H)
153mm(L)*143mm(W)*41.2(H)

Operating Temperature
–40°C to +85°C (–40°F to +185°F)

Weight
452g