

NIR-32-EU

IR Reader



The infrared meter reader monitors electricity meter system in a long-term and effective manner by collecting working status and electricity consumption of infrared electricity meter. It connects to a single infrared electricity meter via an "infrared interface", receives various consumption data from the meter, and transmits the data to local or remote software platforms through WiFi. The real-time status and historical data of the electricity meter can be presented in form of charts, which are intuitive and easy to understand. This allows users to monitor the electricity meter system at anytime and anywhere, greatly simplifying maintenance work.

I Applicable Scenarios

Suitable for household users with infrared electricity meters in Europe.

- No manual meter reading required, avoiding problems of inaccurate data and complex operations.
- Local API interface calling, obtaining consumption data quickly and access Home Energy Management System efficiently.
- Real time electricity meter data monitoring, realizing smart energy management.
- Accurate consumption data analysis, achieving revenue increasement and electricity cost control.

I Features

- Compact size, easy to install.
- Four-hole design to adapt to different electricity meter structures.
- Standard Bluetooth for fast network configuration with high success rate.
- Standard LoRa technology for easy remote relay communication.
- Optional RS485 interface for local data reading.
- Seamless communication with various smart electricity meter models.
- Compliant with EN 18031 IoT security standard.

Communication Parameters	
Remote Communication	WiFi
WiFi Standard	802.11 b/g/n
WiFi Frequency Range	2.412GHz-2.484GHz
WiFi Transmission Power	802.11b: +20.5dBm (@1Mbps) 802.11b: +20.5dBm (@11Mbps) 802.11g: +20.0dBm (@6Mbps) 802.11g: +18.0dBm (@54Mbps) 802.11n: +19.0dBm (@HT20, MCS0) 802.11n: +17.5dBm (@HT20, MCS7) 802.11n: +18.5dBm (@HT40, MCS0) 802.11n: +17.0dBm (@HT40, MCS7)
Bluetooth Standard	BLE 5.0
Bluetooth Operating Frequency	2.402GHz-2.480GHz
Bluetooth Transmission Power	Max 20dBm
LoRa Operating Frequency Band	864MHz~928MHz
LoRa Transmission Power	Max 22dBm
Antenna	Bluetooth/WiFi on-board antenna LoRa on-board antenna
Hardware Parameters	
Installation Method	Magnetic suction type: vertical installation, horizontal installation
Product Size	34mmx50mmx28.3mm (excluding power cable)
Power Interface	USB-C
Data Interface	Infrared transceiver @ wavelength 940nm
Communication Distance	≤10mm±1mm
Data Storage	8MB
Operating Voltage	DC 5.0V±5%
Operating Power	<3W
Indicator Lights	One for electricity meter connection status - infrared green light One for server connection status - WiFi blue light
Button	One reset button
Operating Temperature	-20°C~+50°C
Operating Humidity	10%-70% relative humidity, no condensation
Storage Temperature	-25°C~+60°C
Storage Humidity	<40%
Software Parameters	
Number of Connected Infrared Electricity Meters	1 unit
Data Collection Interval	SML protocol: 2s; OBSI protocol: 30s~2min
User Configuration	Local configuration, remote configuration
Firmware Upgrade	Local upgrade, remote upgrade
Restart Mechanism	Software watchdog, hardware watchdog
Others	Real-time control, break point resume

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