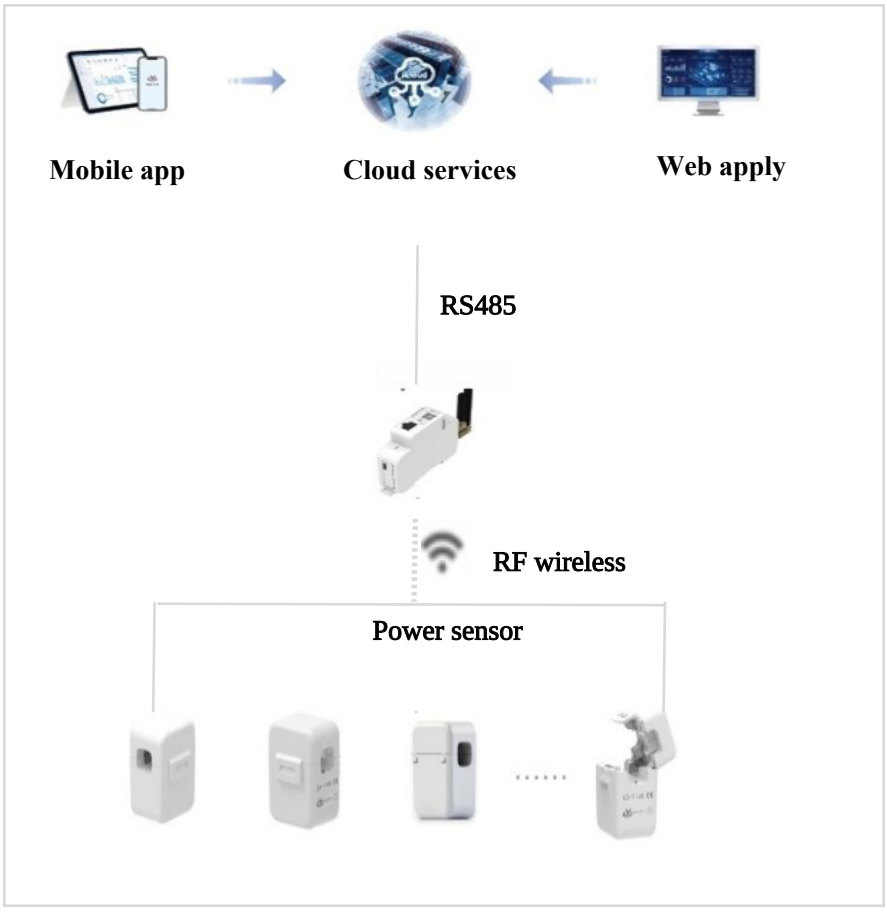
Non-Invasive Passive Wireless Current &Temperature Sensor and Gateway

Performance Features

- No power supply, self-service power, no battery
- Non-invasive, power-free, snap-on installation
- Electrical Parameters monitoring (current, temperature, etc.)
- Open-close monitoring and real-time abnormal alarms
- High sensitivity and wide coverage of wireless networking communication
- Supports RF wireless (433MHz), RS485 Modbus RTU

Product topology



Application scenarios

- **Energy efficiency analysis**
- **Device status monitoring**
- **Carbon inventory for electricity consumption**
- **Electricity conservation monitoring**
- **Electrical safety monitoring**
- **Smart energy management**
- **Smart elderly care monitoring**
- **Electrical Fire Alert**
- **Smart Manufacturing Monitoring**

Non-Invasive Passive Wireless Current &Temperature Sensor

The HYLR-W series is a wireless smart current&temperature sensor developed with core technologies including micro-energy harvesting. Featuring a non-invasive snap-fit installationmethod, it eliminates the need for wiring or power outages.
Its self-powered electromagnetic induction design requires no external power source or batteries. The system provides precise monitoring of current, temperature across various electrical loads. Data is transmitted via RF wireless communication to smart gateways then processed through big data cloud platforms for data storage, alrorithminc computation, in depth analysis, and visualization.

Description	HYLR-W/30A	HYLR-W/200A
Power supply mode	Self-service electricity	
Rated current	30A	200A
Minimum startup current	0. 4A	0. 4A
Sampling period	Adjust in 1 seconds	
Measurement Parameters	current, power factor, power, energy, temperature, etc	
Current measurement range	0~36A	0~240A
Communication mode	RF wireless	
Wireless transmission cycle	Default is 15 seconds. Wireless configuration is supported.	
Accuracy	±1%	
Normal working temperature	-25℃~65℃	
Working temperature limit	-40℃~70℃	
Storage temperature	-40℃~70℃	
Working humidity	No condensation at 5% to 95%RH	
Waterproof and dustproof	IP5X protection rating	
Outline dimension	25×30. 5×41. 8mm	44×32. 6×60mm
Wire diameter	1. 5-35mm²	10-125mm²
Net weight	45±2g	110±2g

Smart Gateway

The HYTR-DE series edge computing gateway supports wireless and wired data collection for edge computing, storage, and big data cloud platform upload. Featuring high-sensitivity RF wireless technology with strong anti-interference capability, it enables wireless monitoring of device data and operational status while supporting wired data retrieval from local devices. Compact in size yet powerful in computing capacity, it supports various flexible east-west and west-east communication methods such as ETH、RF、RS485.

Description	
Working power supply	DC Input: 5V/2A Type-C AC Input: 90~380VAC (with AC power module)
Way to install	DIN rail, wall mount, desktop
Platform	Heyuan Cloud platform
LED pilot lamp	Main power, RF, RS485
Key	Reset button. Press and hold for 3 seconds to reset.
Communication	RS485 Modbus RTU RF wireless
Device management	Number of wireless devices ≤128
Normal working temperature	-25℃~65℃
Working temperature limit	-40℃~70℃
Storage temperature	-40℃~70℃
Working humidity	No condensation at 5% to 95%RH
Waterproof and dustproof	IP5X protection rating
Outline dimension	78×20×65㎜
Net weight	70±2g

Certainty of Measurement

Measurement Parameters	Accuracy
Current	±1%
Temperature	±1%
Temperature	±1%

(Note: In: Rated current of the carbon sensor)

Selection and ordering (supporting product customization)

Power curent sensor

(HYLR-W/30A)

Power current sensor

(HYLR-W/200A)

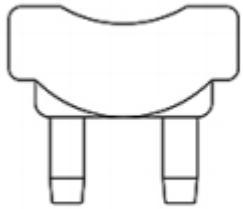
Smart Gateway

(HYTR-DE.V2.0)

Installation Instructions

HYLR-W/30A

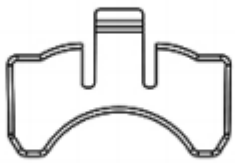
Power current sensor



Cable fixing accessory

HYLR-W/200A

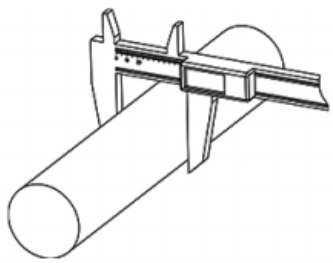
Power current sensor



Cable fixing accessory 1

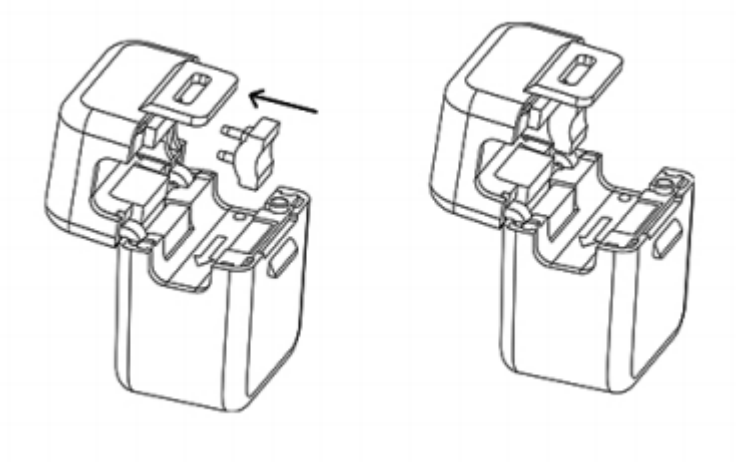
Cable fixing accessory 2

Please determine whether to install accessories based on the diameter of the cable.



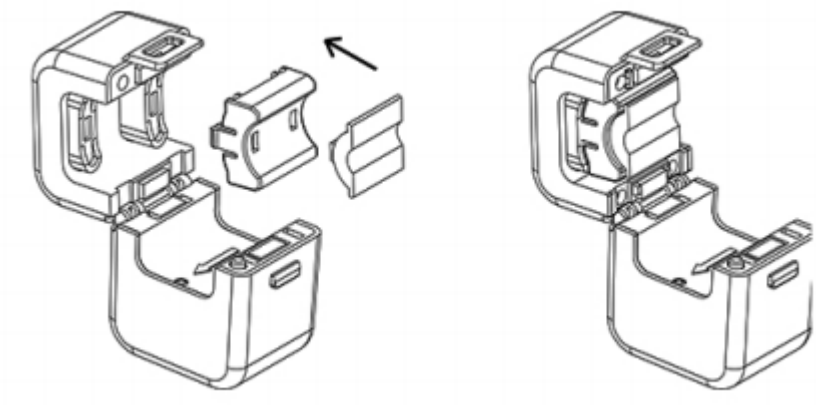
HYLR-W/30A

If the wire diameter is less than 7mm, need to install the accessoriy.

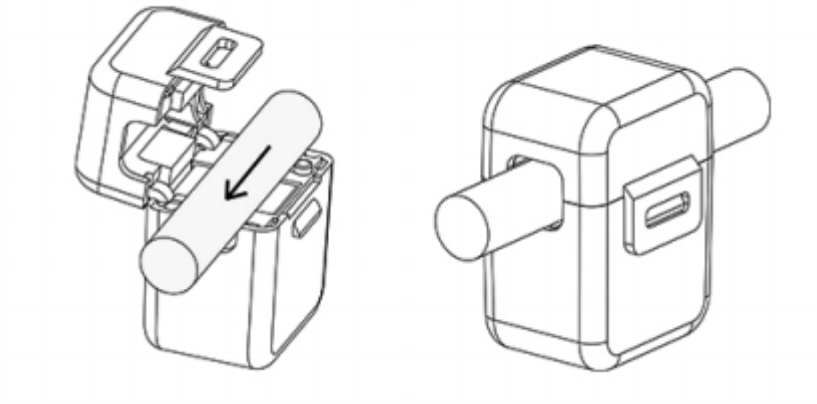


HYLR-W/200A

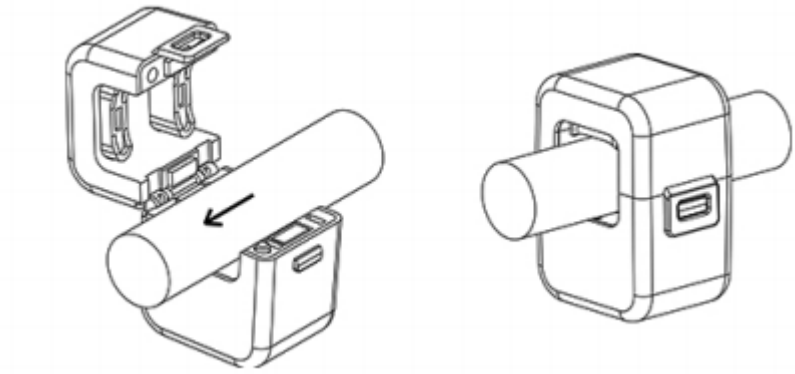
If the wire diameter is less than 17mm, need to install the accessoriy 1.
If the wire diameter is less than 10mm, need to install the accessoriy 1 and accessory 2.



Open the snap-on cover of the power sensor and observe the current direction of the sensor(it should be consistent with the actual current flow in the positive direction). When installing, it should be done according to the wiring direction. Select the line to be installed(the live wire), install the power sensor onto the line. When the current in the line reaches the sensor's startup current, the sensor will start to operate, and the indicator light will flash.



HYLR-W/30A



HYLR-W/200A