



DATA MONITOR

NWM-K130-RNY-1

INTRODUCTION

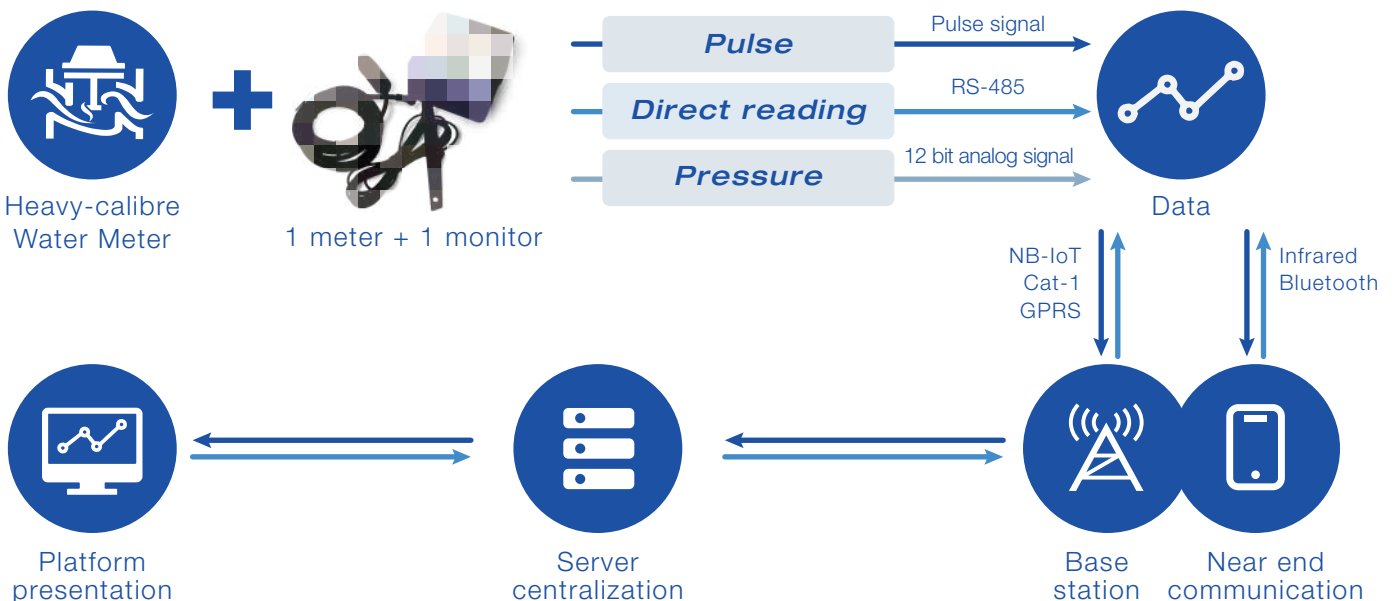
NWM-K130-RNY-1 data monitor is a device that collects and summarizes water meter flow data and pipeline pressure data, and uploads the data to the business platform for analysis and processing through NB-IoT network.

FUNCTIONS

► Data Acquisition

Collect the data of water metering instrument.

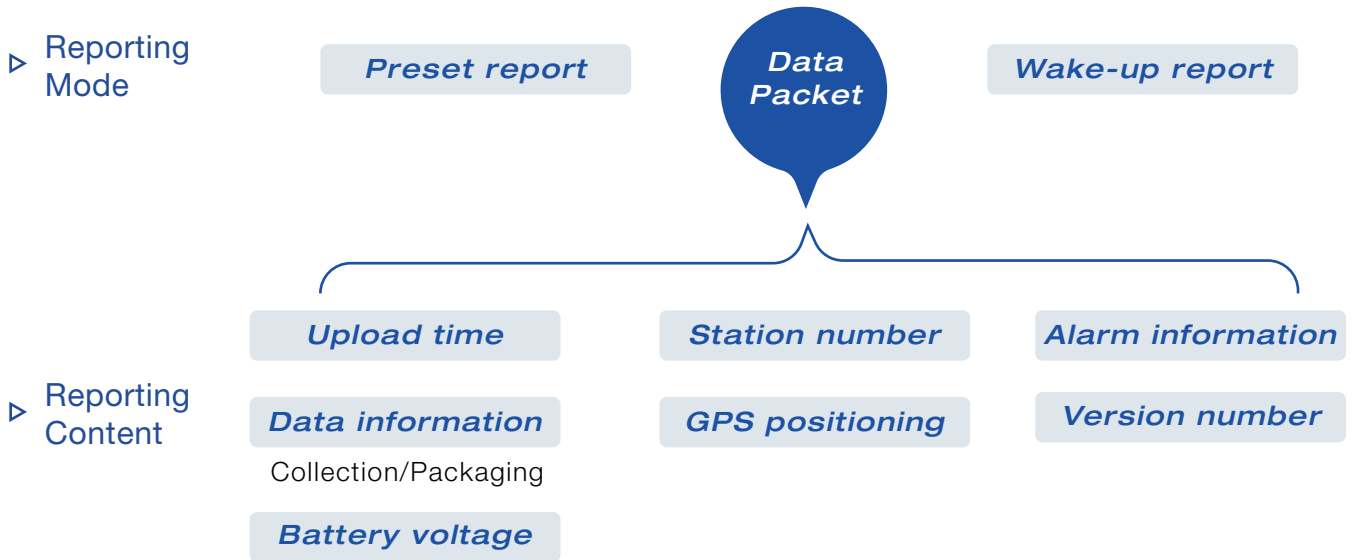
Supported signal types: RS-485, pulse signal, 12 bit analog signal...



EVERY DROP OF WATER WILL CREATE THE VALUE OF LIFE.

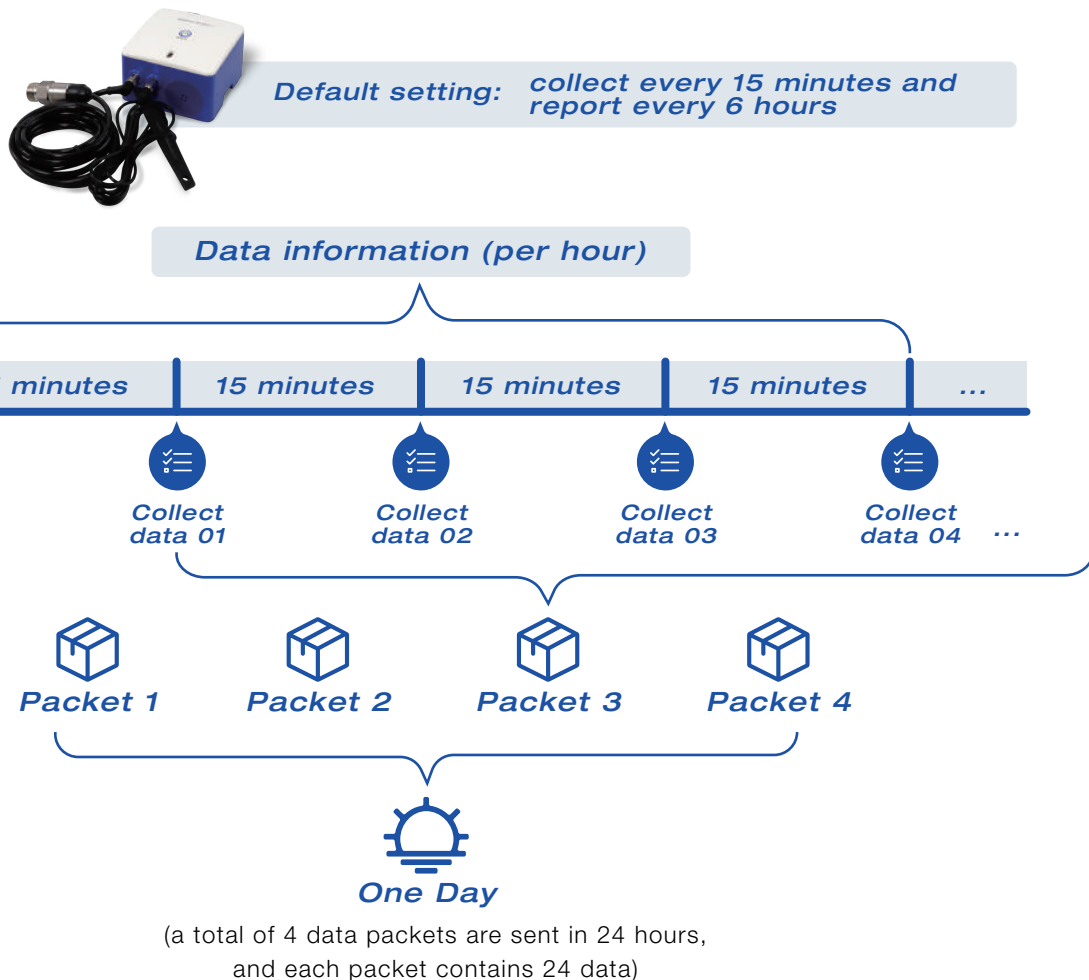
► Data Remote Transmission

Package and send the collected data to the data platform.



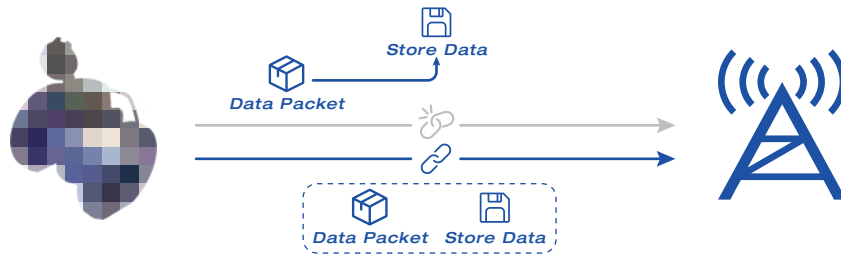
► Acquisition/Transmission Frequency

(could be changed according to actual needs)



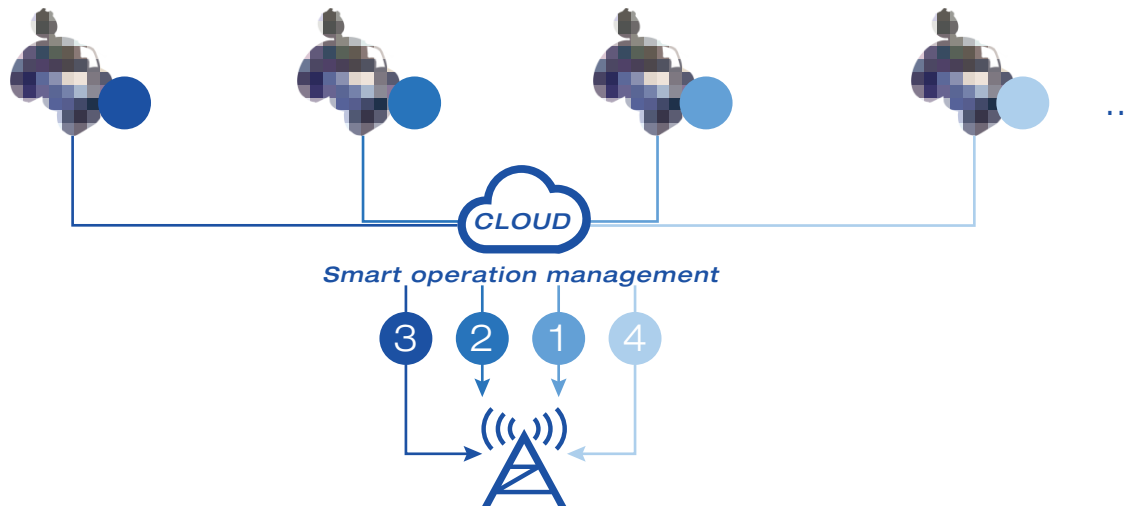
► Data Reissue

After the communication is successful, resend the cycle data that has not been reported and resend successfully, so as to ensure the reliability of data reporting.



► Discrete Reporting

In NB-IoT signal mode, discrete reporting mode will be enabled. Narrow band IoT has narrow bandwidth, and centralized reporting will lead to congestion.



► Endurance Guarantee

Battery life 12 years

The platform will alarm 6 months before the power is exhausted, and the battery is replaceable.



19000mAh
Battery capacity

2.585mAh
24-hour power consumption
(15min/6h)

570mAh
Annual self discharge

1519mAh
Annual equivalent power consumption

ELECTRICAL CHARACTERISTICS

Data acquisition mode	Non-magnetic/Hall/Dry reed	Working voltage	3.6V
Pressure acquisition mode	Voltage type acquisition	Storage environment	Relative humidity ≤ 90%
Data reporting method	NB-IoT	Installation environment	Class B
Ambient temperature	5°C ~ 55°C	Electromagnetic environment	E1
Waterproof grade	IP68	Low level pulse time	>200ms

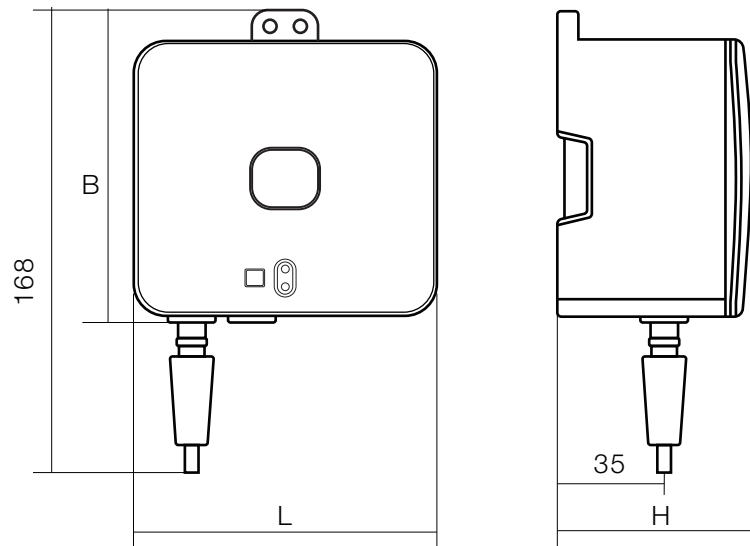
DESCRIPTION OF EXTERNAL WIRING

Function	Eight core wire
GND	Brown, white
VCC (pressure)	Yellow
Ain (pressure)	Pink
P1	Gules
P2	Blue
P3	Grey
3V0	Green



SIZE AND WEIGHT

L	mm	100
B	mm	100
H	mm	64
Weight	g	320

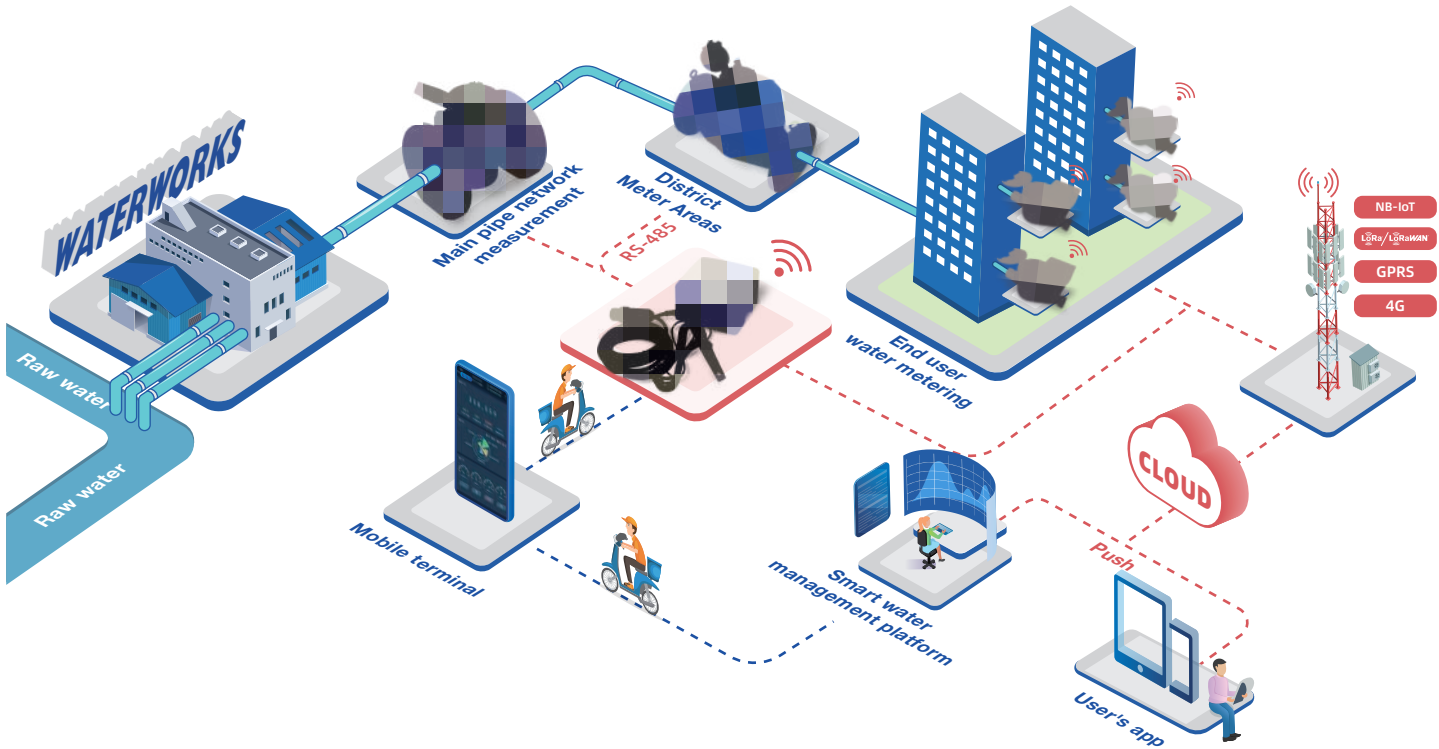


Dimensional drawing of NWM-K130-RNY-1

EQUIPMENT STRUCTURE



APPLICATION



EVERY DROP OF WATER WILL CREATE THE VALUE OF LIFE.

INSTALLATION AND USE

- 1 Before installation, connect the waterproof aerial wire with the sensor. The eight core wire can choose whether to connect the pulse or pressure sensor as required.
- 2 Wrap the connection with waterproof tape, and wrap the unused fracture with waterproof tape.
- 3 The installation position can be adjusted by the length of waterproof aviation line according to the site conditions; Try to avoid exposure, pollution and flooding for disassembly and maintenance.
- 4 Punch holes on the surface of the installation position with an impact drill, and fix the device and external antenna with expansion screws.
- 5 The fixed position of external antenna shall be close to the ground as far as possible to ensure qualified signal quality.
- 6 Due to the wireless transmission characteristics, when the built-in antenna device is installed in the well, try to keep the device close to the ground so that the device can better receive signals.

SOLUTIONS TO COMMON PROBLEMS

Low voltage alarm	Replace the battery
Communication failure	Check whether the platform software is normal, whether the NB-IoT network is normal, whether there are arrears, etc. Judge whether it is continuous communication failure or intermittent communication failure, and contact customer service personnel.
The electronic reading does not match the mechanical reading	Check whether the wiring and installation between the electronic module and the water meter are correct, and whether there are voltage alarms that have not been handled.
Abnormal pressure data	Check whether the wiring between the device and the sensor is correct, whether there is poor contact or water inflow at the wiring.



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