



# DATA MONITOR

## NWM-D110-2

### INTRODUCTION

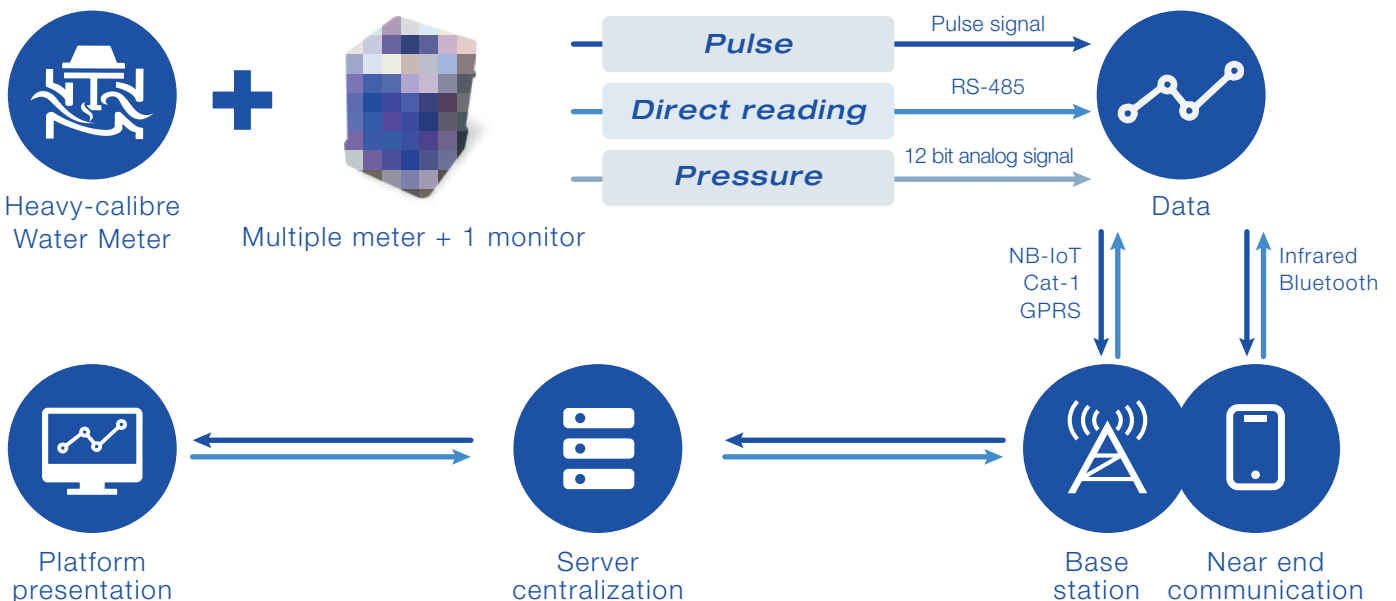
NWM-D110-2 data monitor can collect multi-channel pulse quantity, switching quantity and analog quantity at the same time, realize data exchange between wireless communication network and data server by means of NB-IoT, GPRS and 4G, and automatically complete the functions of water meter data acquisition, transmission, storage, control and encryption.

### FUNCTIONS

#### ► Data Acquisition

Collect the data of water metering instrument.

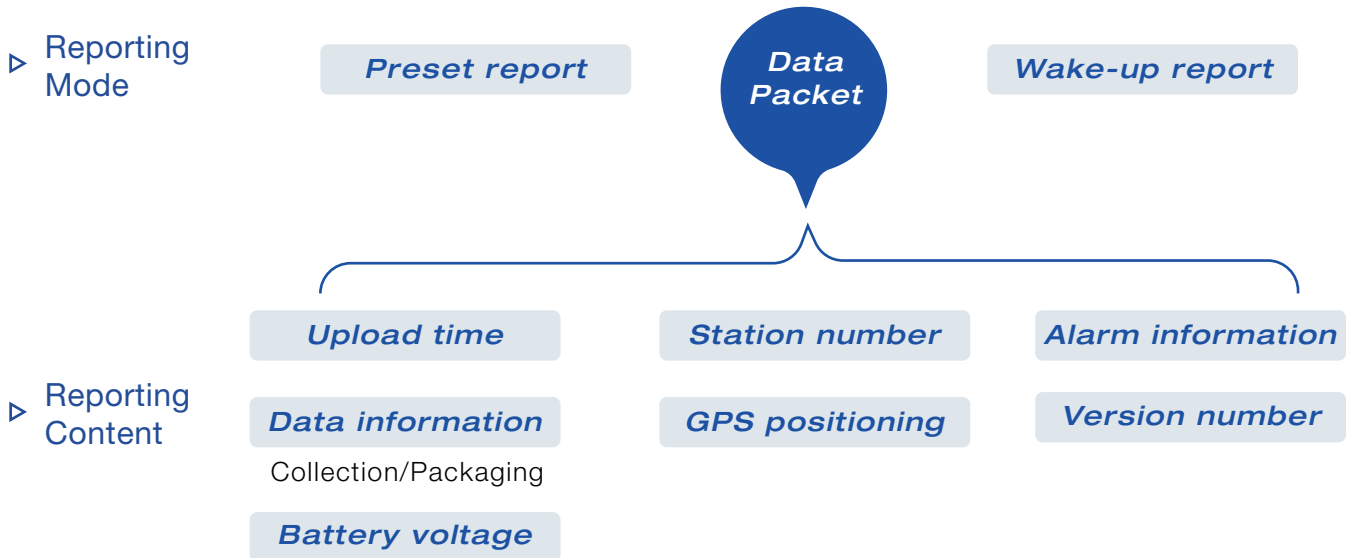
Supported signal types: RS-485, pulse signal, 12 bit analog signal...



EVERY DROP OF WATER WILL CREATE THE VALUE OF LIFE.

## ► Data Remote Transmission

Package and send the collected data to the data platform.

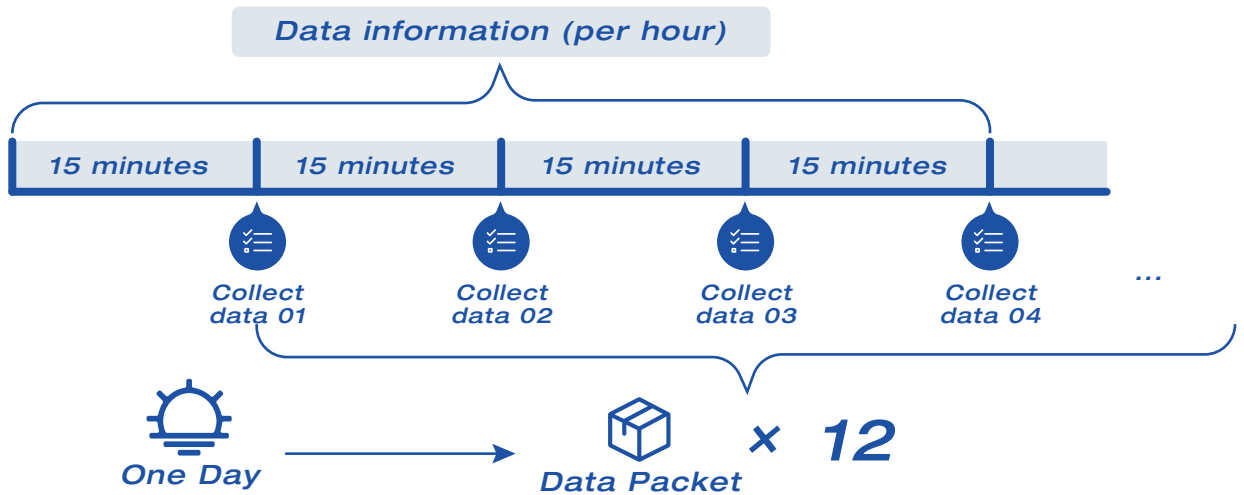


## ► Acquisition/Transmission Frequency

(could be changed according to actual needs)



**Default setting:** collect every 15 minutes and report every 2 hours



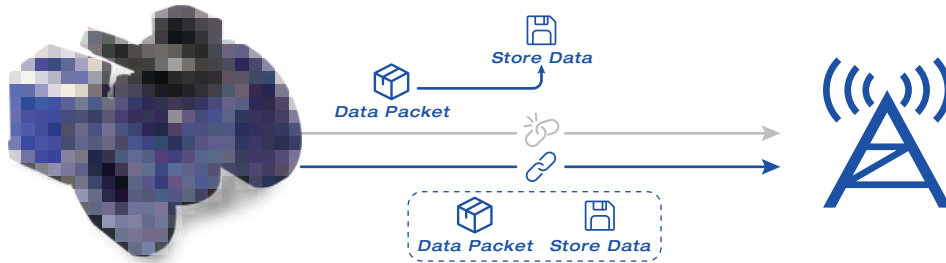
(a total of 12 data packets are sent in 24 hours, and each packet contains 24 data)

## ► Storage Mode

When the product leaves the factory or is not used, it is not reported to save battery power.

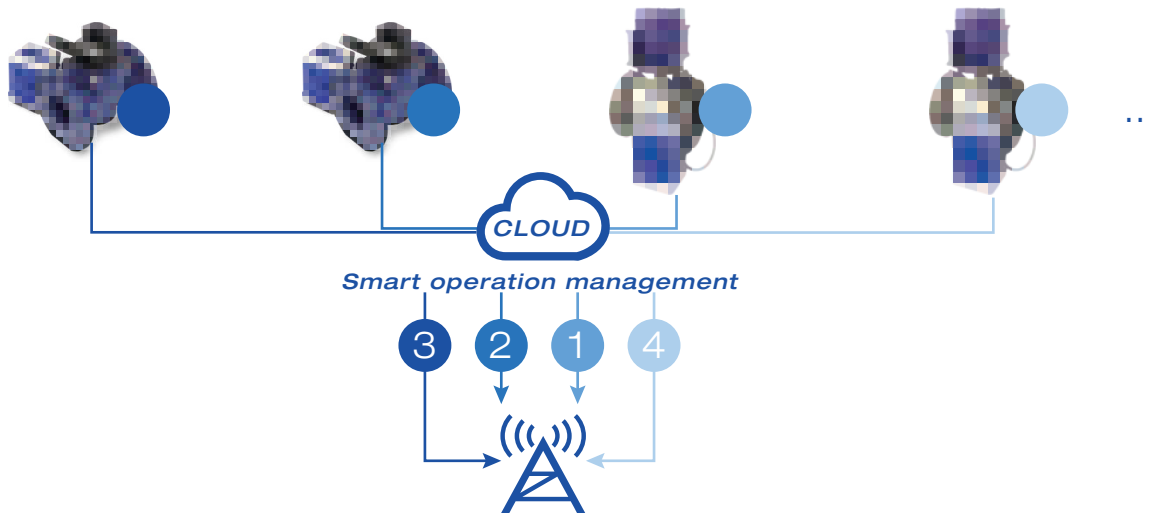
### ► Data Reissue

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 **7.5** years

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

**76000mAh**  
Battery capacity

**18.49mAh**  
24-hour power consumption  
(15min/6h)

**3420mAh**  
Annual self discharge

**10168.85mAh**  
Annual equivalent power consumption

## ELECTRICAL CHARACTERISTICS

Communication mode	NB-IoT	GPRS	4G
Power waste	Normal standby state < 25μA; The working current during communication < 85mA; The average current during communication is about 19mA; The power consumption of primary communication is about 405.6μAh.	Normal standby state < 25μA; The working current during communication < 970mA; The average current during communication is about 45.8mA; The power consumption of primary communication is about 977.5μAh.	Normal standby state < 25μA; The working current during communication < 805mA; The average current during communication is about 47.6mA; The power consumption of primary communication is about 1026.1μAh.
Acquisition mode	Passive pulse (effective resistance<10kΩ, invalid resistance>1mΩ)		
RS-485 frequency	The default baud rate is 1200bps, even check, 1-bit stop bit, and supports baud rates of 1200, 2400, 4800 and 9600. When used for direct reading, it can be determined according to the secondary instrument. The check bit supports no check, odd check and even check.		
Voltage	DC3.6V lithium battery		
Waterproof grade	IP68		
Explosion proof grade	ExdIIBT4		
Working temperature	-25~+55°C		
Storage temperature	-40~+70°C		
Relative humidity	<95% (no condensation)		

## DESCRIPTION OF EXTERNAL WIRING



**Position 1: connected to 8-core connecting wire.**

Colour	Signal	Signal description
Red	PI1	Pressure sensor input of the first water meter
Pink	PI2	Second water gauge pressure sensor input
Yellow	VCC	Battery DC output - pressure sensor power supply
Brown	GND	Systematically
Blue	485-A	485-A end
Grey	485-B	485-B end
Green	7V6	7.6v DC power output - direct reading meter power supply
White	GND	Systematically

**Position 2: connected to 8-core connecting wire.**

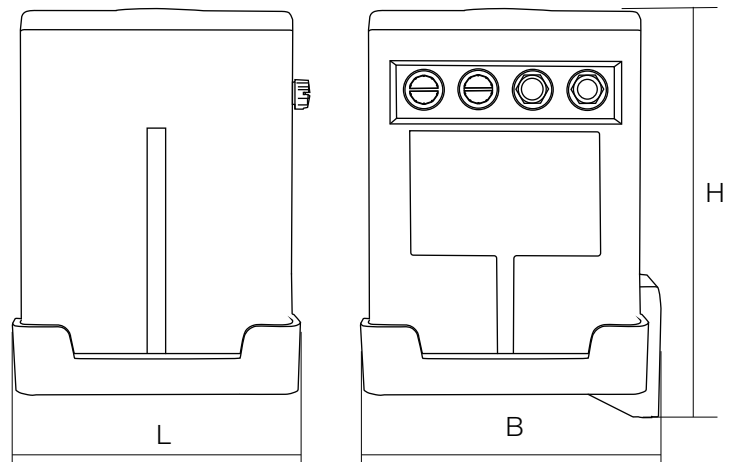
Colour	Signal	Signal description
Red	P1	The first pulse input terminal of the first water meter
Pink	P2	The first channel of water meter and the second channel of pulse input terminal
Yellow	P3	The third pulse input terminal of the first water meter
Brown	P4	The second channel of water meter and the first channel of pulse input terminal
Green	P5	The second channel of water meter and the second channel of pulse input terminal
White	P6	The second channel of water meter and the third channel of pulse input terminal
Blue	3V	3V DC output - pulse sensor power supply
Grey	GND	Systematically

**Position 3: reserved.**

**Position 4: connected to external antenna.**

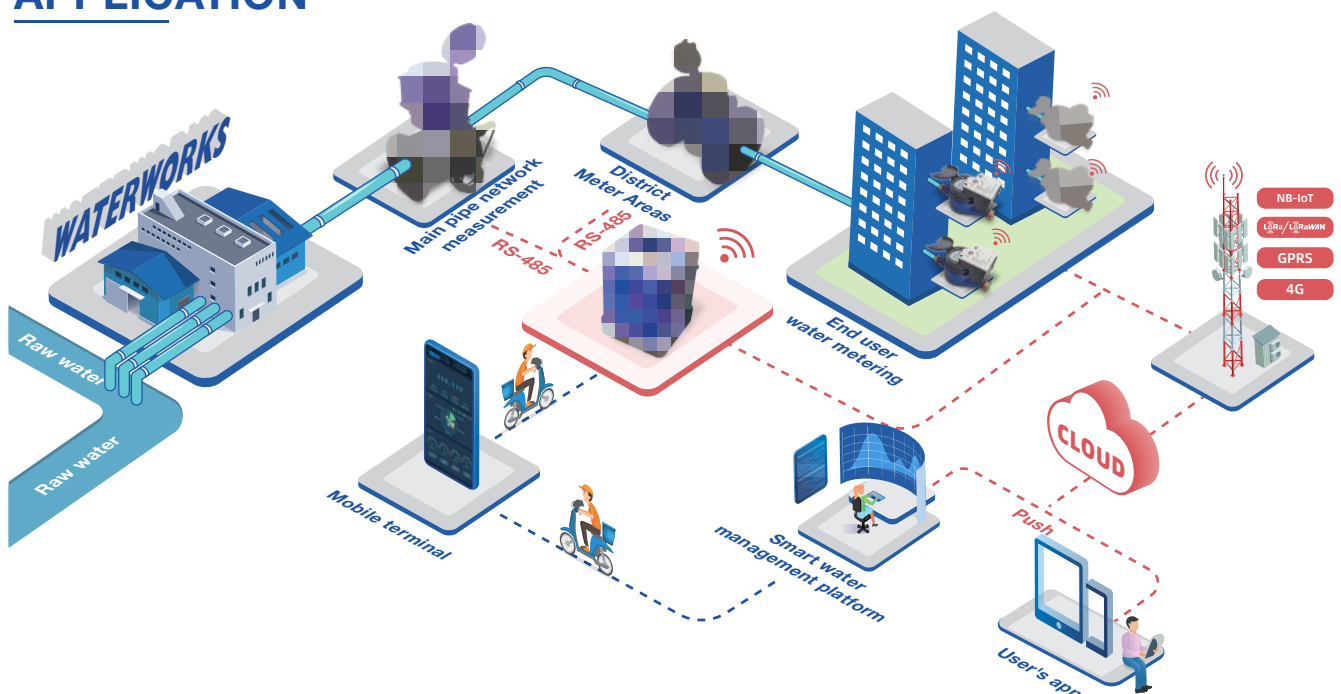
## SIZE AND WEIGHT

L	mm	100
B	mm	107
H	mm	135



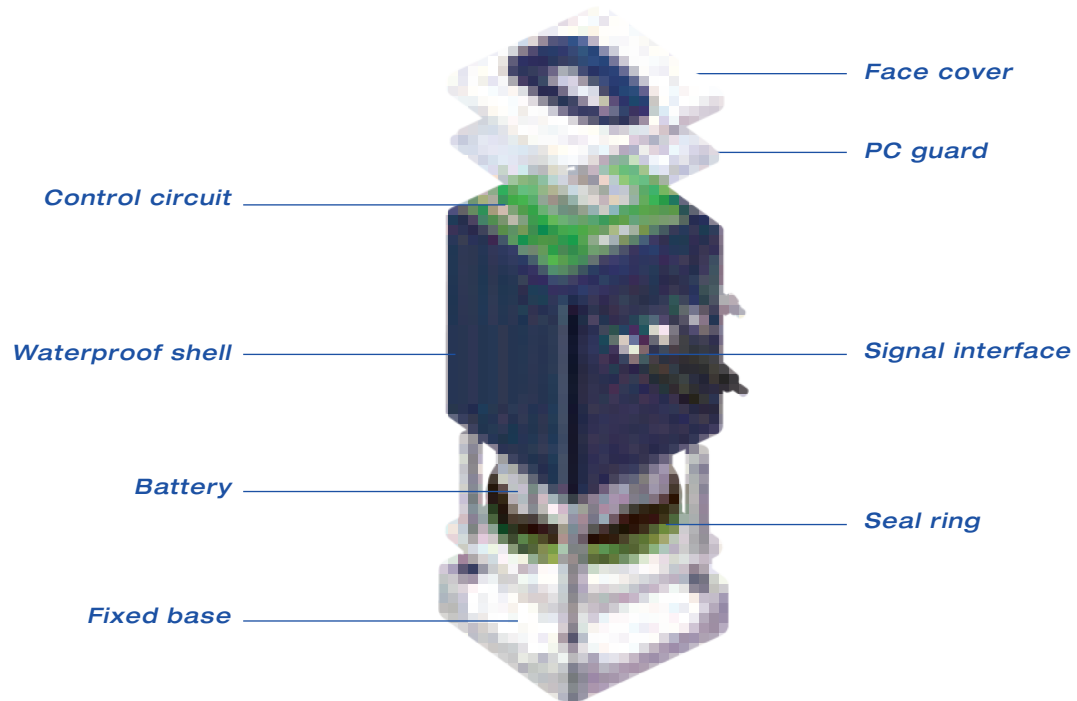
Dimensional drawing of NWM-D110

## APPLICATION



EVERY DROP OF WATER WILL CREATE THE VALUE OF LIFE.

## EQUIPMENT STRUCTURE



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Version No.: NWM-D110/1.0

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