

RHF1S061-NB Product Specification

V1.0

**Document information**

Info	Content
Keywords	<i>RisingHF, NB-IOT, gas meter, technical specifications</i>
Abstract	This manual describes the technical specifications and specifications of the NB-IOT version gas meter RHF1S061-NB developed by RisingHF

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1 Overview

RHF1S061-NB gas meter supports periodic reporting meter reading, which can detect multiple alarms and report through NB-IOT communication network, supporting B3, B5, B8, B20 and B28 Bands with operation temperature range-10~40°C and IP67 waterproof level. The device can query and configure the working parameters of the device through USB infrared tools and modify the remote downstream commands.

1.1 Product Appearance

The RHF1S061-NB appearance diagram is shown below.

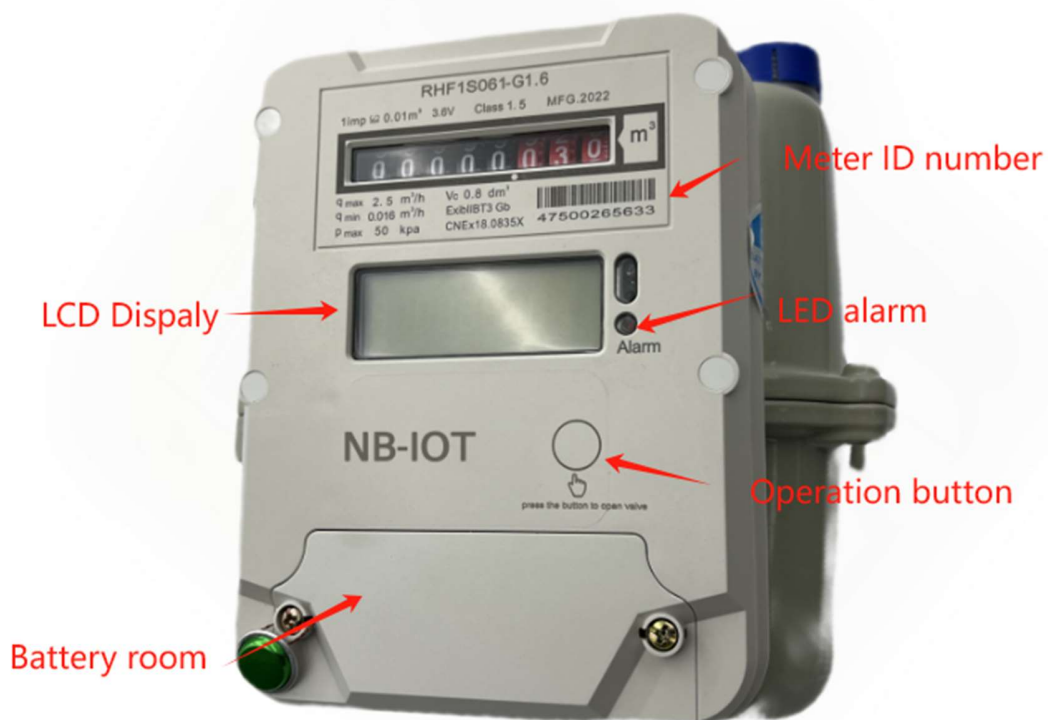


Figure 1 RHF1S061-NB-G1.6 outside appearance

1.2 Overview and Suitable Applications

Technical Features (G1.6 as example):

- ◆ NB Support frequency band:
 - CN: B3, B5, B8
 - EU: B3, B8, B20
 - AP: B3, B5, B8, B28
- ◆ Maximum flow: 2.5 m³/h
- ◆ minimum flow : 0.016 m³/h
- ◆ rated flow : 1.6 m³/h
- ◆ Pressure loss : ≤250 Pa
- ◆ Pressure Range 0.5 – 50 kPa
- ◆ Indication error
 - 0.1Q_{max}≤Q≤Q_{max} ±1.5%
 - Q_{min}≤Q≤0.1Q_{max} ±3%
- ◆ Data collection : Dual reed switch
- ◆ IP67 Protection level
- ◆ operating temperature range :
 - 10°C ~ +40°C
- ◆ Infrared query and configuration of the equipment parameters.
- ◆ Battery low power alarm
- ◆ External magnetic interference detection
- ◆ Alarm for opening the upper cover of gas meter
- ◆ Overflow alarm
- ◆ Low balance alarms
- ◆ Overdraft function
- ◆ Remote control, periodic reporting

Suitable Applications:

- Restaurant and commercial use
- Family kitchen

1.3 Technical Specifications

Table 1 RHF1S061-NB Product specifications

Model Technical Parameters	G1.6	G2.5	G4
Nominal flow (m ³ /h)	1.6	2.5	4
Maximum flow(m ³ /h)	2.5	4	6
Minimum flow (m ³ /h)	0.01	0.025	0.04
Pressure loss (Pa)	≤250		
Pressure Range (kPa)	0.5 – 50		
Indication error	0.1Q _{max} ≤Q≤Q _{ma}	±1.5%	
	Q _{min} ≤Q≤0.1Q _{ma}	±3%	
Data collection method	Dual reed switch		

Base meter material	Aluminium	
Shell Material	ABS+GF	
Static sleep current	≤17uA	
Working temperature range	-10°C ~ +40°C	
Storage Temperature Range	-20°C ~ +60°C	
Operating humidity range	5 – 95% non condensing	
Working voltage range	3.0V – 4.3V	
Battery specifications	ER26500, 3.6V, 8500mAh (replaceable)	
Battery life	Report data once a week, valve operates once a month, battery life can reach over 12 years	
Waterproof level	IP67	
Frequency bands supported	B3,B5,B8, or B3,B5,B8,B20, B28	
Product size	185.6mm*194.4mm*166.9 mm	250mm*259mm*193.4mm
Net weight of product	approximately 1.7 kg	approximately 2.0 kg

1.3.1 NB-IOT Spec

Table 2 NB-IOT technical specifications

NB-IOT specifications	
NB-IOT antenna	Built-in high-performance FPC + Cable antenna
frequency	B3/5/8 or B3/5/8/20/28
Maximum emission power	23 dBm
Impedance	50 Ω with VSWR< 2.0
Gain	+1dBi

2 Gas performance and reliability requirements

2.1 Electrical performance

2.1.1 Power supply requirements

Built-in battery power supply, 3.6V 8.5Ah lithium-thionyl chloride cylindrical battery.

Table 3 Battery parameters

O.	Item	General Parameter	Remark
	Nominal Capacity	8.5Ah	8.5A (discharge 3mA at 23 °C ± 2 °C to termination voltage of 2.0V) (The capacity of a battery is also related to discharge current, temperature, termination voltage, etc., and there may be differences in capacity.)
	Nominal voltage	3.6V	
	Maximum continuous discharge current	150mA	
	Maximum pulse current	300mA	
	Storage	≤30°C	
	Operating temperature	-55~85°C	When the working temperature is higher or lower than normal temperature, the capacity can be reduced and the voltage reading at the beginning of the pulse is low.
	Weight	Approximately 53g	

2.2 Compliance and Reliability

2.2.1 Compliance and Certificates

- EN 1359:2017
- OIML R 137 (2012)
- MID

2.2.2 Explosion-proof Grade

- Ex ib IIB T3 Gb

3 Mechanical size information

3.1 Mechanical size

G1.6 Mechanical size: 185.6mm*194.4mm*166.9mm

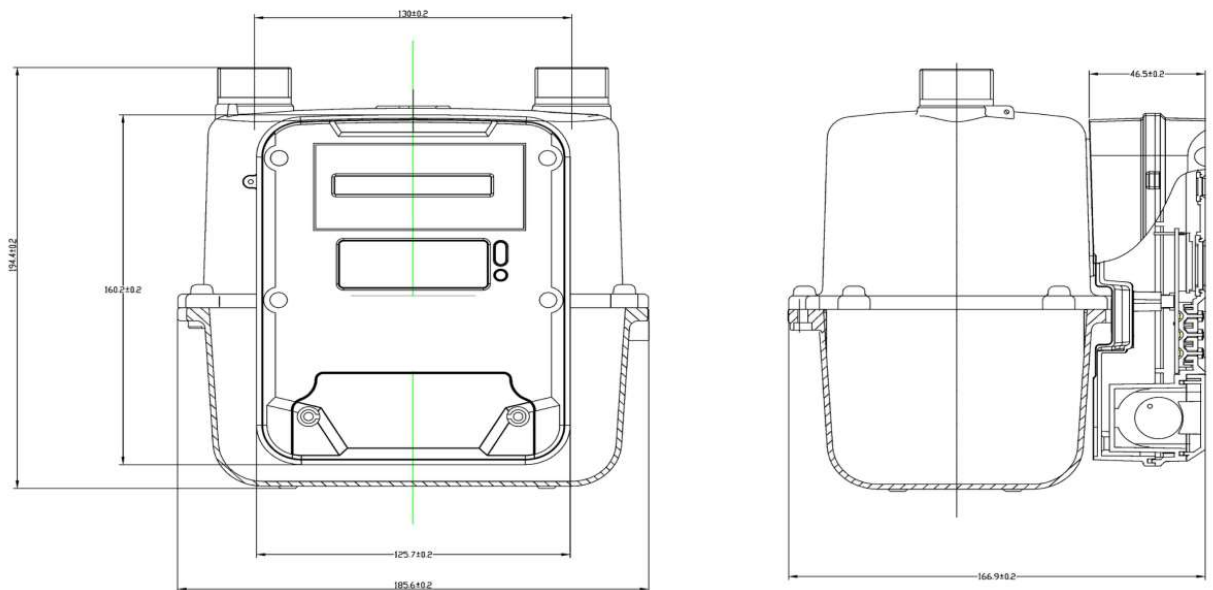


Figure 2 RHF1S061-NB mechanical size diagram

G2.5 Mechanical size: 185.6mm*194.4mm*166.9mm

G4.0 Mechanical size: 250mm*259mm*193.4mm

4 Contact information

E-mail for ordering information

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V1.0 2023-03-07

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