



STS Keypad Prepaid Water Meter

Lora/GSM Wireless

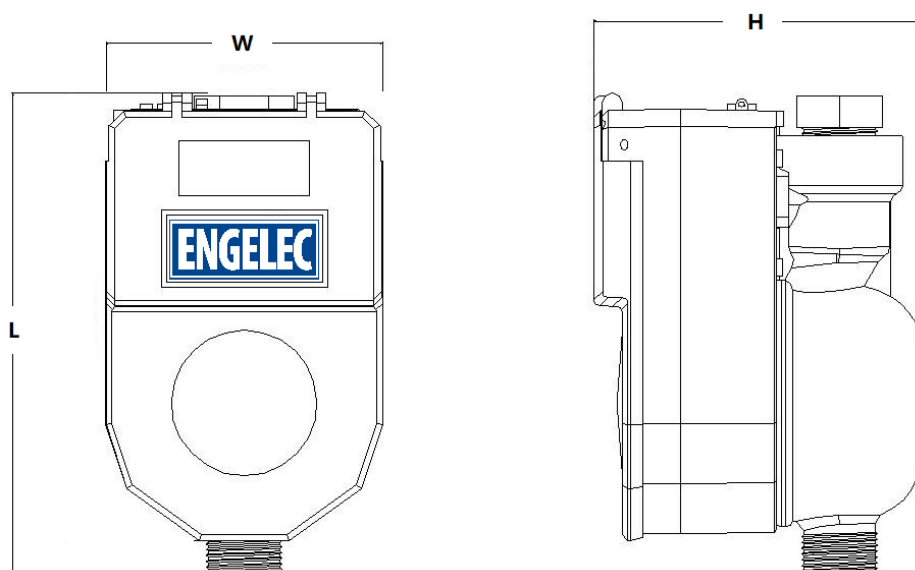
User Manual



Structure & Main Components:


- The stainless steel ball valve and brass body has good property of anti-rust and anti-corrosion, and they are durable of switching frequently and effectively. The protection level of our prepaid water meter is level IP68, which can be used in harsh environment.
- Water flow direction and is clearly indicated on the side of body. The user need install the water meter in the direction of the arrow to avoid measuring errors.
- The digital power is supplied by a replaceable and waterproof 3.6V ER18505 lithium battery.
- The water meter is horizontally installed and the measurement accuracy R100 (R160 optional).
- The prepaid water meter has three sizes DN15/DN20/DN25 for options, it equips with pipe joints accessories.

Technical Parameters




Prepaid Water Meter			
Sizes	DN15	DN20	DN25
Measurement Accuracy	Class 2.0	Class 2.0	Class 2.0
Display Mode	LCD, Digital, Pointer		
Communication	433MHz LORA-RF		
Communication Distance with DCU	1000m		
Maximum Reading	99999.9m ³		
Battery	3.6V Lithium Battery		
Current in Working/Sleeping State	≤1.1mA / ≤12uA		
Working Temperature	<50°C (cold water meter)		
Working Pressure	0.02MPa-1MPa		
Total Length	165±0.5mm	195±0.5mm	225±0.5mm
Pipe Diameter	DN15	DN20	DN25
Dimensions of shell	148.3*94.7*64.4mm		

Functions:

- The keypad prepaid water meter is compliance with STS standard, users need to input the 20 digits token to recharge, clear credit and clear tamper for the water meter.
- It supports LORA-RF wireless operation by data collector with GSM, the communication distance reaches 1000m.
- The high-capacity battery integrating with a power management program make the battery service life above 5 years under normal condition. The meter has low-battery/non-battery reminder function. The user only need to change the battery when seeing the reminder symbol "  " on the LCD screen.
- The water meter can be monitored and recharged remotely by ENGELEC vending system.
- It supports prepaid and postpaid mode switching. The overdraft amount can be
- The LCD will show the error and the meter will close the valve automatically when the signal distracted by the magnetic field or the battery was removed illegally.

Display Codes:

S/N	Description	LCD Display
1	"ACCEPT": It means that the Token could be accepted by water meter.	ACCEPT
2	"REJECT": It means that the Token refused by water meter, the Token may not for the meter ID or the Token has at least one input errors.	REJECT
3	"USED": It means that the input Token has been used before and cannot be reused.	USED
4	"OLD": It means that the input Token is expired and need to generate new token.	OLD
5	"NULL": It means the input command is not defined.	NULL
6	It means the meter battery is low power or the battery is disconnected.	
7	It means the meter valve is in the open state currently.	Valve Open
8	It means the meter valve is closed currently.	Valve Close
9	It means the entered token is wrong	Err_06
10	It means there's a measurement error or the signal distracted by the magnetic field	ACTErr1
11	The valve is abnormal.	ACTErr5

Operation Codes:

Keypad input code	Functions
00	Update the data of water meter (m ³)
01	Show the cumulative water consumption (m ³)
06	Show the cumulative purchased amount (m ³)
07	Show the residual amount (m ³)
65	Show the first 6 digits of meter ID number (SN)
66	The last 6 digits of meter ID number (SN)

Installation Notices:

- Before using the water meter, the anti-tamper token should be input to make the meter in the working state.
- Generating a recharge token by vending software, then input the token by meter keypad. The LCD shows “RECEP” , it means the meter accept the token. The user can input “07+Enter” on keypad to check the residual credit.
- Now the meter starts to work normally.