

Split Type STS Prepaid AMI Water Meter

The Split Type STS Prepaid AMI Water Meter consists of two parts, a Prepaid Water Meter, which complies to STS standard IEC 32055-41, and a separate Customer Interface Unit (CIU) with RF Wireless Communication and Dot Matrix Type LCD.

In addition, it supports Automated Metering Infrastructure (AMI) functions by way of a Data Concentrator Unit (DCU) that enables remote management and data collection.



Features

- STS Prepaid working mode
- Meter recharge & data query via CIU
- Remote meter data collection via AMI functions
- Supports leak and meter tamper detection

Functionalities



Real Time Clock

The meter includes a separate Real Time Clock (RTC) chip to ensure accuracy to an error margin of <math><0.5s/day</math>

Step Tariff

Support for 10 stepped Water Tariff to assist in realisation of real time monetary calculations in meter.*

When consumed credit exceeds the fixed water volume, the credit will be deducted according to the latest price multiplied by the consumed volume. Calculating billing is done according to the monthly accumulated water consumption on the different steps.

Flexible Water Recharge Methods

STS Credit Tokens can be input to the meter using the traditional CIU Keypad.

Parameter Inquiry

Meters' corresponding parameters could be queried via CIU by LoRa RF Wireless Communication or Infrared Communication through TWO digits Data Query Token Group.

Recharge Limitation

Anti-water storage, if remaining water + current recharged water > recharge limitation, it shall reject the recharge operation, to prevent water storage.

Valve auto-clean

Meter's valve will be opened and closed or closed and opened once at a defined time interval to prevent the valve from being stuck and to check whether the valve is working.

AMR Functions:

- Meter Installation Location (GIS) information Collection
- Automatic Meter Data Collection and upload to Meter Data Management System (MDM)
- Remote Meter Parameter Checking & Valve Control

AMI Functions:

- Automatic Meter Data Upload like Hourly/Monthly Consumption Data Record, Battery Voltage, Meter Alarm Event etc.
- Automatic Real Time Clock (RTC) Calibration
- Remote Meter Parameter Checking & Valve Control
- 10 years historical meter data storage
- Prepaid and Postpaid Working Mode switchable

*This function only be available for meters with measure mode of By Amount.

Technical Specifications

SMART Prepaid Water Meter

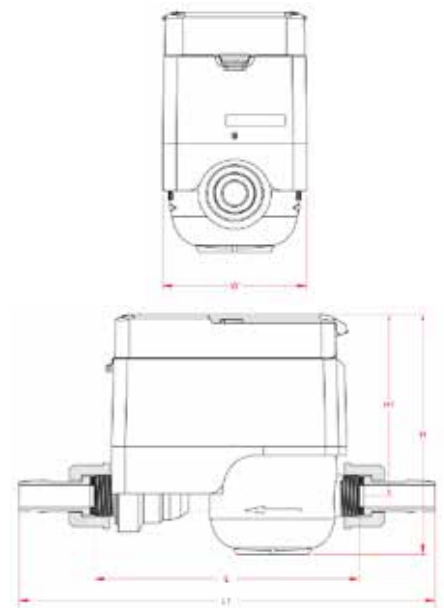
ITEMS	UNIT	PARAMETERS	
		DN15	DN20
Diameter	mm	15	20
Permanent Flow Rate Q3	m ³ /h	2.5	4.0
R (Q3/Q1)		100/160	
Permissible Error	Q ₂ ≤ Q < Q ₄	2%	
	Q ₁ ≤ Q < Q ₂	5%	
Working Temperature	°C	0 - 30 or 0 - 50	
Max. Working Pressure	MPa	1.0	
Rated Working Voltage	V	3.6V	
Battery Lifespan	Year	≥ 6 years (Typical)	
Pulse Equivalent	m ³	0.01 (10 liters)	
IP Level		IP68	
Communication Method		<ul style="list-style-type: none"> LoRa RF Wireless Com. Infrared Com. 	
LoRa RF Wireless Com. Frequency		<ul style="list-style-type: none"> 470Mhz, 433Mhz, 868Mhz etc. optional. 	
Communication Distance		<ul style="list-style-type: none"> 100-200m by LoRa RF Wireless Com. 5m by Infrared Com. 	

Dimensions of Meter

	L	L1	H	H1	W
DN15	165	225	150	113	90
DN20	195	295	150	113	90



PPLA23LR-PL DN15
PPLA23LR-PL DN20



Customer Interface Unit (CIU)

- ⦿ AC Power and Dry Battery Power (4pcs AAA) Solution optional
- ⦿ Touchable Keypad for Token input
- ⦿ LoRa RF Wireless Communication & Infrared communication integrated in ONE
- ⦿ Firmware Upgrade Port reserved

