



## **HXS100-A**

**ANSI Smart  
Single & Two Phase Meter  
(FM1S FM2S FM12S)**

*Focus on creating value for clients*

# HXS100-A

HXS100-A is a new generation of single&two phase smart meter which complies with FM1S,FM2S and FM12S, It meets the CA0.5 of ANSI C12.20 standard. With a 3G or RF(Wi-SUN) communication module, It is compatible with AMI software and provide remote energy consumption monitoring and meter configuration.



## ■ Highlights

- Multiple AMR/AMI Plug and Play (RS232) options - 3G, RF(Wi-SUN), etc.
- Open Communication Protocol
- ANSI C12.20 - Accuracy Class of CA0.5
- Time of Use metering
- Advanced metering functions such as reactive measurement and Power Quality Monitor.
- Load Profile
- Maximum Demand
- Event Log
- Anti-tamper design
- Remote Disconnect Switch (optional, 200A max)

## ■ Main Functionalities

### ➤ Measurement

- Active energy Measurement: import, export, import + export, import-export
- Reactive energy Measurement
- Instantaneous value measurement

### ➤ LCD Display

- Configurable measured data, Large digit LCD display, easy for reading
- Display of energy configurable to 4\5\6digits
- LCD backlights

### ➤ Time-Of-Use

- Up to 4 tariff rates
- Up to 8 weekly tables & 6 Seasons
- Up to 8 daily time tables & Up to 8 time periods

- Up to 50 programmable holiday schedule

- Up to 500 event Logs
- Battery can be replaced
- Maximum demand / Cumulative demand
- Up to 8 channels of load profile recording in 64MB data memory
- Up to 12-month billing data
- Detect exception tamper events: Device reconfigured, Power outage, Open cover, Magnetic Influence, etc.
- Power Quality Monitor: Under Voltage, Over Voltage, etc
- Load control with remote disconnect switch (optional)

## Specifications

**Accuracy** CA0.5

### Voltage

Reference voltage 120V for FM1S&FM12S  
240V for FM2S  
Operating voltage range 0.8Un-1.2Un

### Current

Basic current 15A for FM1S 30A for FM2S&FM12S  
Maximum current 100A for FM1S 200A for FM2S&FM12S

### Creep

0.000A(no current) No more than one pulse measured per quantity, conforming to ANSI C12.1 requirements

### Starting current

50mA for FM1S  
100mA for FM2S&12S

### Frequency

60Hz +/- 5%

### Temperature

Operation range -40°C to +85°C  
Limit range for storage and transport -40°C to +85°C

### Humidity

0% to 100% non-condensing

### Battery

Self-life time 10+ years.  
Work-life time 5+ years

### Power Consumption

Power consumption in voltage circuit (active) ≤1 W  
Power consumption in voltage circuit (apparent) ≤4 VA  
Power consumption in current circuit ≤0.5 VA

### Insulation Strength

Surge Voltage 2.5kV, 2500 strikes  
AC voltage test 4kV during 1min  
Impulse voltage test 1.2/50μs mains connections 6kV

### EMC

Electrostatic discharges(Contact discharges) 8kV  
Electrostatic discharges(Air discharges) 15kV  
Surge immunity test 4kV  
Fast transient burst test 4kV  
Electromagnetic RF fields (80MHz to 2000MHz) 10V/m(with current), 30V/m(without current)

### Housing

Protection class IP54  
Meter cover Transparent PC  
Meter base Opaque PC + fiber glass

### Display

Digit size 5.2mm x 11.4mm  
Number of digits 7

### Weight

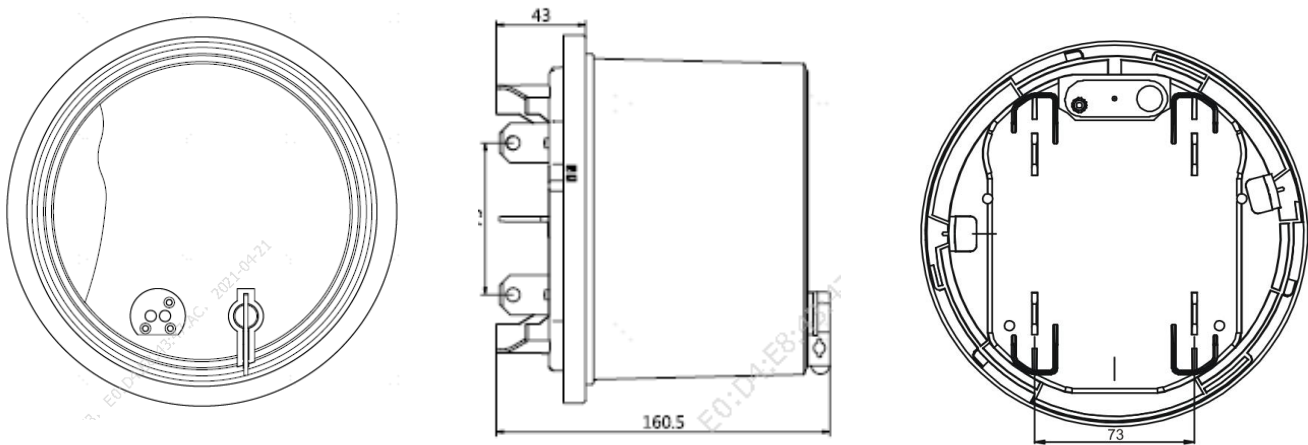
Net weight approx.1.58kg(with disconnect switch)

<b>Dimension</b>	approx.1.2kg(without disconnect switch) 177mm×177mm×160.5mm	
<b>Communication</b>	AMR/AMI Plug and Play Module(RS232)	3G/RF(Wi-SUN) etc

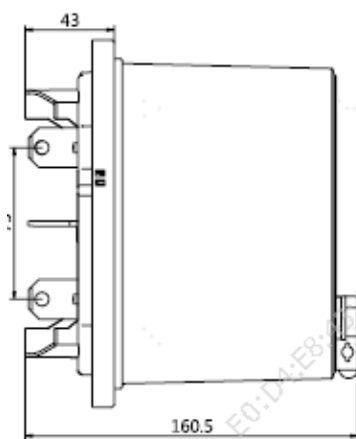
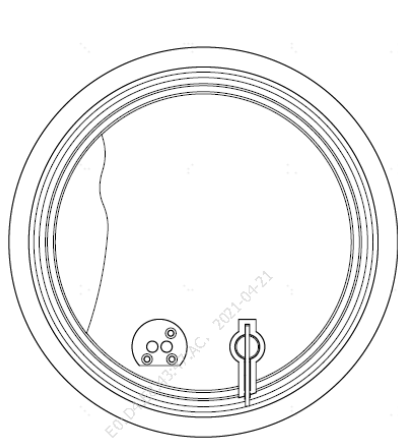
## ■ Standard

<b>ANSI C12.1</b>	American National Standard - for Electric Meters Code for Electricity Metering
<b>ANSI C12.10</b>	American National Standard - for Physical Aspects of Watthour meters Safety Standard
<b>ANSI12.20</b>	American National Standard for Electricity Meters - 0.2 and 0.5 Accuracy Classes
<b>ANSI12.18</b>	American National Standard Protocol Specification for ANSI TYPE 2 Optical Port
<b>IEC62056-21</b>	Electricity metering – Data exchange for meter reading, tariff and load control – Part 21:Direct local data exchange

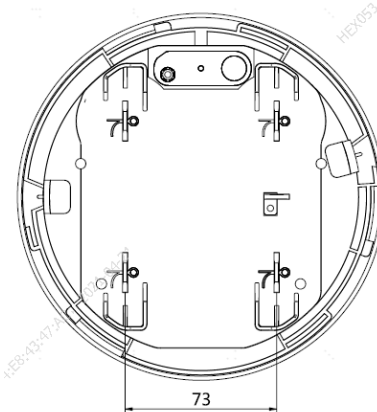
## ■ Dimensions



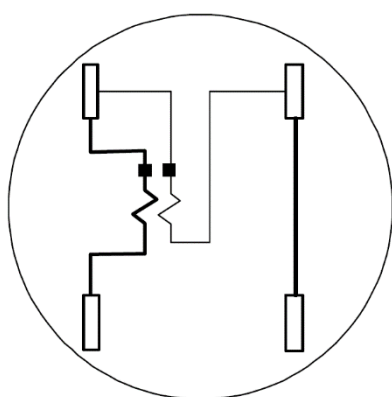
FM1S&FM2S



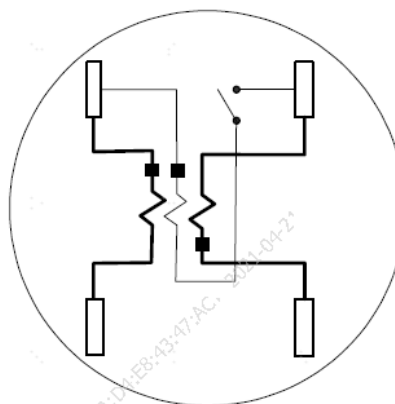
FM12S



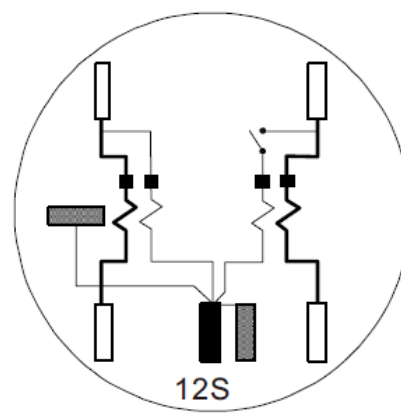
## ■ Connection Diagram



FM1S



FM2S



FM12S