

## SINGLE-PHASE ELECTRONIC METER



**(Extend Terminal Cover)**

# SX1 SERIES



**(Side-Wiring)**



**(Normal)**

## DESCRIPTION

The **SX1** is a single-phase electronic meter implemented with digital signal processing techniques to measure active energy (kWh), voltage, and current. It is integrated with anti-tampering and event log recording features.

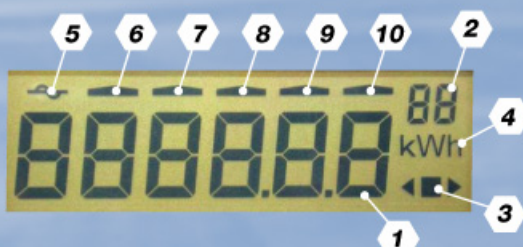
## APPLICATIONS

The **SX1** is true-outdoor electricity meter designed to meet residential metering requirements. It is suitable for power utility revenues as well as complex/apartment billings and power/energy monitoring.

## FEATURES

- Up to 6 Anti-tampering functions: Over current, Bypass, Earth load, Reverse, Terminal cover opening, and Front cover opening detections with event log data
- 6 Digits high reliable LCD display suitable for outdoor use
- kWh, kW, kVA, Voltage, Current, Frequency, and Power Factor measuring and display
- Bi-directional energy metering
- Class 1 accuracy (IEC 62053-21)
- Long-time free maintenance with digital calibration
- IEC 62056-21 optical communication port (300 / 9600 bps) for data programming and reading
- RS-485 communication port for AMR integration (option)
- Rugged construction with UV Resistant plastic cover and Steel base
- Weather-proof enclosure with IP 54
- 6kV Impulse withstanding and full compliance with EMC standard

## DISPLAY DESCRIPTIONS



1. Measurement Values
2. Display Code
3. Energy Direction and Indicator
4. kWh unit
5. Over current alarm

6. Front cover opening alarm
7. Bypass Tamper alarm
8. Earth Load Tamper alarm
9. Reverse Current alarm
10. Terminal cover opening alarm

## TECHNICAL DATA

## ACCURACY

Class 1

IEC 62053-21

OPERATING RANGES		Basic / Reference	Range
Voltage		220 V, 230, or 240 V	176 - 264 V
Current	5 (15) A	5 A	15 A (Maximum)
	5 (30) A	5 A	30 A (Maximum)
	15 (45) A	15 A	45 A (Maximum)
	20 (60) A	20 A	60 A (Maximum)
	5A - CT type	5 A	6 A (Maximum)
Frequency		50 or 60 Hz	45 - 65 Hz
Temperature		25°C	-25 °C to +55 °C (Standard) -25 °C to +70 °C (Extend Type)
Humidity			≤ 98%RH

### ABSOLUTE MAXIMUMS RATTING

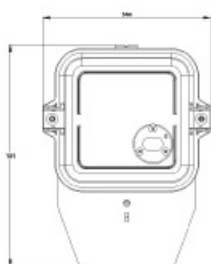
Voltage		288 V
Impulse voltage withstand		6 kV
Current	Continuous	1.2 I <sub>max</sub> @ 30 minutes
	Temporary	30 I <sub>max</sub> @ 10 milliseconds

## GENERAL CHARACTERISTICS

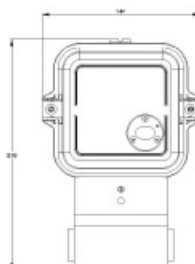
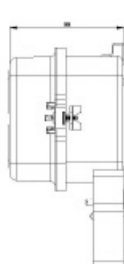
Power burden	Voltage Circuit	Less than 2 W/10 VA	
	Current Circuit	Less than 2 VA (at basic current)	
Starting current		0.4% of basic current	(e.g. 20mA for 5(15)A model)
No-load condition	(Creep)	No change more than 1 unit of register	
Startup delay		Less than 3 seconds	
Test LED output	Pulse rate	6000 imp/kWh	for 5(15)A/ 5(30)A/ 5A-CT Type
		2000 imp/kWh	for 15(45)A/ 20(60)A

AVAILABLE MODEL	Number of Sensors	Wiring Connection	Anti-Tampering Features						kWh Relay Output	AMR Port	Terminal Cover
			OL	BP	ET	RE	TB	FC			
SX1-B00E	2	Direct	O	O	O	O	O	O	-	-	Extended
SX1-B01E	2	Direct	O	O	O	O	O	O	-	RS-485	Extended
SX1-A20S	1	Direct	O	-	-	O	O	-	-	-	Side-wiring
SX1-A31N	1	Direct	-	-	-	-	-	-	-	RS-485	Normal
SX1-A50N	1	CT	-	-	-	-	-	-	O	-	Normal
SX1-A40N	1	CT	-	-	-	-	-	-	-	-	Normal
SX1-A70N	1	Direct	-	-	-	-	-	-	O	-	Normal

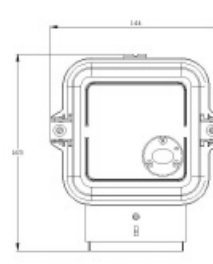
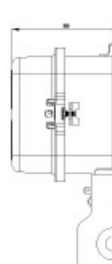
REMARK: OL: Over Load, BP: Bypass, ET: Earth, RE: Reverse, TB: Terminal Cover Opening, FC: Front Cover Opening



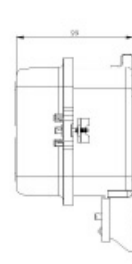
**Terminal Cover : Extended**



### Terminal Cover : Side-Wiring



**Terminal Cover : Normal**



Specifications subject to change without notice  
MEATH-E-09 07-L