PREPAID / POSTPAID METERS

Single Device for Electricity , Gas and Water Measurement.
For a smarter way of energy and revenue management.



ELMEASURE®
Possibilities...Infinite



PREPAID/POSTPAID METERING

The PE 51XXP Series is a range of prepaid/Postpaid meters equipped with Advanced Metering Infrastructure (AMI) for accurate measurement of electricity, gas, or water in residential settings. These meters use LoRa communication to transmit data in real time, enabling efficient resource management and accurate billing.

Meet Standards
IS 13779
IS 15884

Certified products

CONNECTIVITY
LoRa | RS485

GAS
Electricity | Water | Gas

Empowering individuals to transform the way they manage electricity at homes.



BENEFITS

- **Improved accuracy:** Prepaid/Postpaid meters can accurately measure and record energy usage in real-time, which eliminates the need for manual meter readings and reduces the risk of billing errors.
- **Cost savings:** Prepaid/Postpaid meters can help utility companies reduce costs associated with manual meter readings and improve their operational efficiency.
- **Better energy management:** Prepaid/Postpaid meters provide customers with real-time data about their energy usage, which can help them identify ways to save money and reduce their carbon footprint.
- **Detection and prevention of fraud:** Prepaid/Postpaid meters can detect and prevent energy theft by identifying abnormal usage patterns.
- **Remote management:** Prepaid /Postpaid meters enable utility companies to remotely manage and control the energy grid, reducing the need for on-site visits.

One simple solution for energy monitoring, remote control, and bill management.

MOBILE APP



FEATURES

- Prepaid and postpaid direct energy metering.
- Dual and tri-source energy measurement (Utility/Genset/Solar).
- Mobile application for end-users to remotely monitor energy usage.



Residential Energy Management: Prepaid/Postpaid meters are used for real-time monitoring and management of energy consumption in homes and apartments.



Commercial and Industrial Energy Management: Used to monitor and manage energy usage in commercial buildings suchs office spaces, shopping malls, employee quarters, factories, and other industrial facilities.



Energy Efficiency Programs: Prepaid/Postpaid meters enable energy providers to implement energy efficiency programs, encouraging consumers to reduce their energy usage and lower their bills.



Grid Management: Prepaid/Postpaid meters provide real-time energy consumption data that helps energy providers balance energy demand and supply, avoid power outages, and optimize grid efficiency.

REMOTE DISPLAY UNIT

RU 1000 Series remote display can be used for live Monitoring of Prepaid/Postpaid meters.

- Allowing customers to monitor Consumption.
- Elegant design and no separate power is required.
- Display all parameters including balance.
- Display blanks and buzzer beeps in frequent to Indicate low balance.





Prepaid meter

REVENUE MANAGEMENT

- Low credit alerts via SMS.
- Non-disconnection of power during holidays or non-working hours.
- Negative credit as an emergency feature during zero balance.
- Payment options for consumer - online gateways / offline transactions
- Multiple Tariff options - Fixed/maintenance charges, slab tariff & source wise tariff
- Online meter readings & easy utility billing, eliminating manual readings and human errors.
- Single-click tariff updates across the entire network from a remote/centralized location.
- Recharge history along with the payment mode details.
- Monthly bills available via email.

PREPAID/POSATPAID MONITORING

- Real time data collection and transmission of consumption
- Remote monitoring with strong cyber security measures.
- LoRa and Rs485 for local communication.
- Automated meter reading and online bill payment through PPS software (Theiox) provide ease and convenience for consumers.
- Analyze energy usage patterns, identify gaps to reduce consumption and energy bills
- Easy energy audit and load analysis on-the-go through Theiox platform.
- Meter Data Management with Advance Metering Infrastructure (AMI)

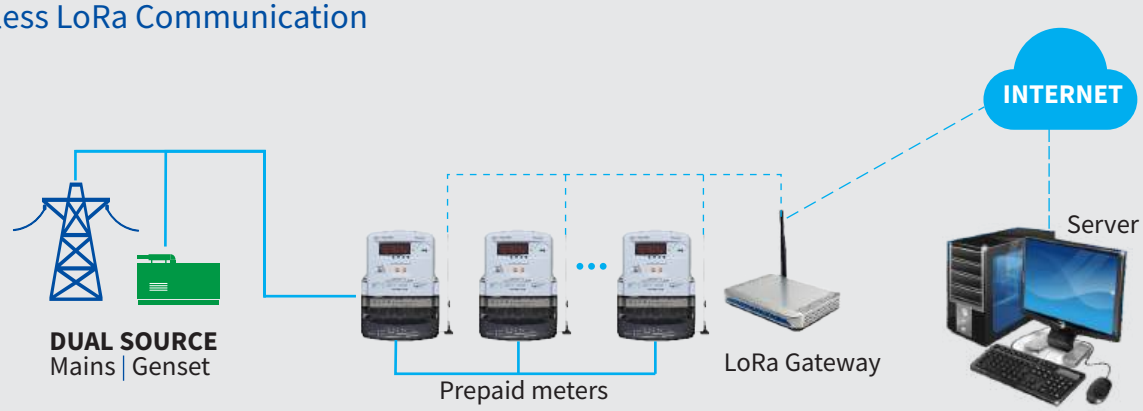
ENERGY & POWER MONITORING

- 4 quadrant Import/Export direct metering and prepayment based disconnection functionality.
- An Intelligent disconnection mechanism for protection against high voltages or for controlling loads on genset/utlity.
- LED output for on-field accuracy testing, based on impulses for KWh
- Remote meter reading over RS485 interface or LoRa network for local communication.

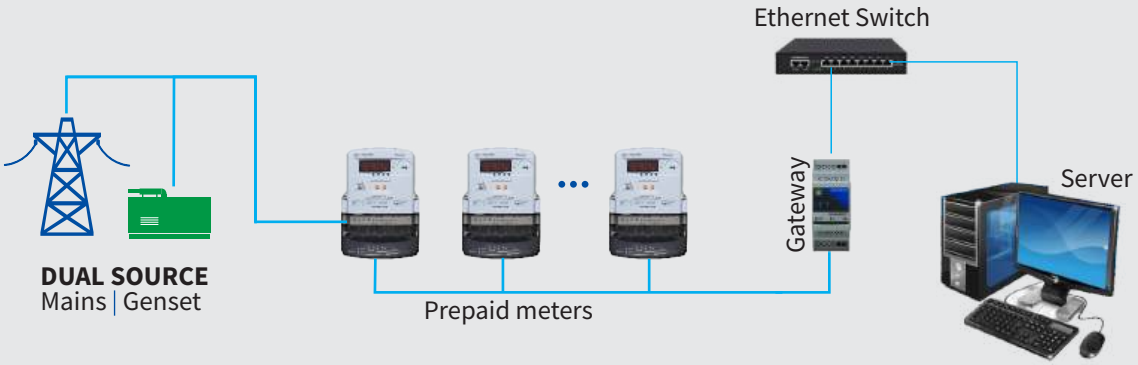
NOTE :- For LoRa communication contact regional head office.

ARCHITECTURE

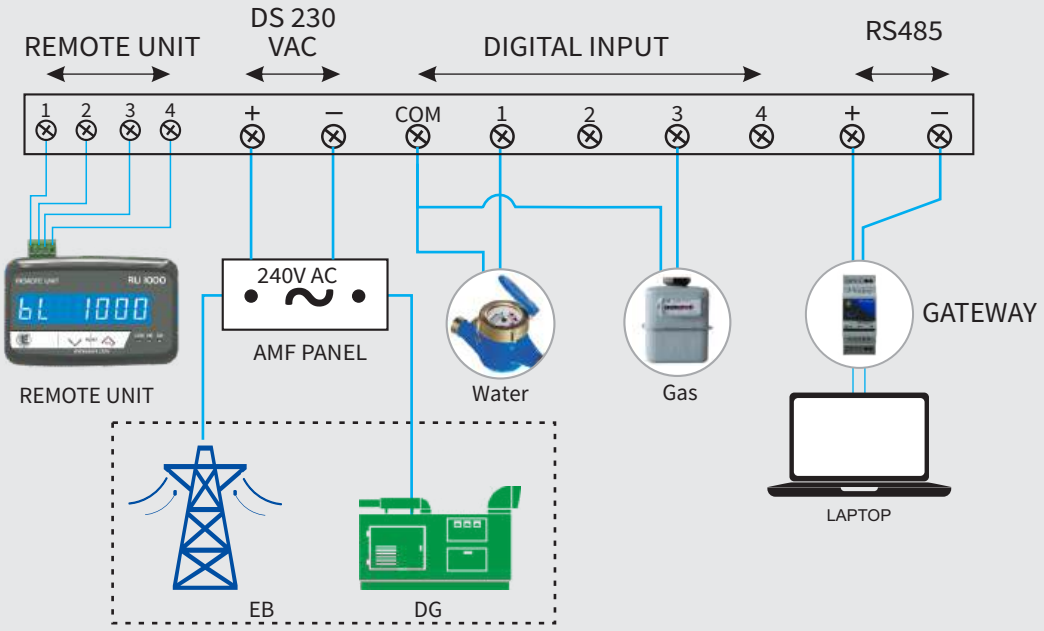
Wireless LoRa Communication



Wired RS 485 Communication



CONNECTION DIAGRAM

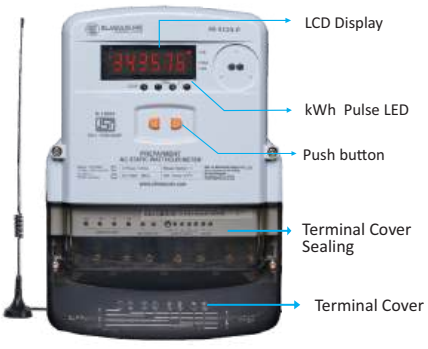


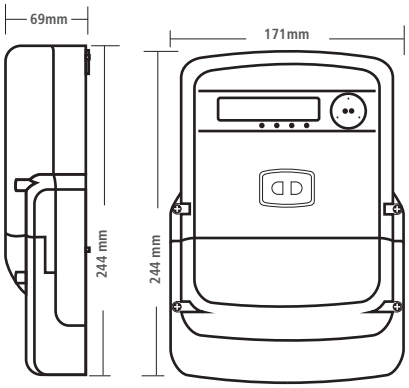
TECHNICAL SPECIFICATION

Specification	Three Phase (PE 5120P)	Single Phase (PE 5121P)
Connection Type	3-Phase, 4-wire AC Static Energy Meter	1-Phase, 2-wire AC Static Energy Meter
Accuracy	Class 1.0 Compliance as per IS 13779, IS 15884	
Rated Current	Whole Current: 10/60A, 20/80A, CT Operated: -/5A	Whole Current: 10/60A
Rated Voltage	3 X 240V (P-N) (-40% to + 20%), Frequency: 50 Hz + 5%	240V (P-N) (-40%to + 20%), Frequency: 50 Hz + 5%
Power Consumption	As Per Standards	
Display Type	7 Segment LED Display - 1 row, 6 Digits, (Integrated 6 Digits), 10mm Height	
LED Indicators	Pulse LED for kWh	
Communication Port Options	LoRa Communication with External Antenna & RS 485	
Communication Protocol	Modbus RTU	
Ingress Protection	IP 51	
Temperature	- 10 C to +55 C(Operating), -25 C to +70 C(Storage),Relative Humidity Up to 95% Non Condensing	
Standards	IS 13779, IS 15884, IEC62052-11	
Others Features	Load Control for Power Connect / Disconnect, Over Voltage, Over kVA	
Sensing / Measurement	True RMS, 1Sec update time. 4 Quadrant Power & Energy	
Input Current	Whole current 10/60A, Starting current 0.4% of Basic Current	
Input voltage	3 X 240V (P-N) (-40%to + 20%) (415 VLL)	240V (P-N) (-40%to + 20%)
Input Frequency	45 - 65Hz	
Display Mode	Auto Scroll, Push Buton	
Wire gauge	6 AWG	
Operating temp	-10°C to +55°C	
Digital Inputs	4DI - Can be used for Water/Gas/BTU Integration Factory Configure Digital input with maximum Frequency 3 Hz for up to 4 Channels	

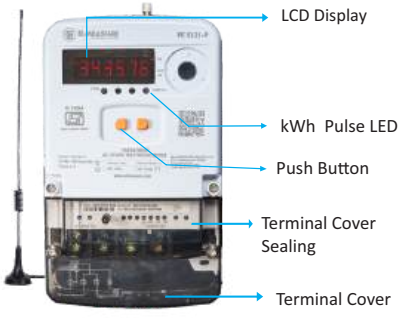
Mechanical Specification:

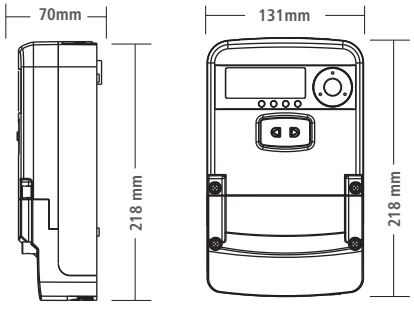
Three Phase (PE 5120P)





Single Phase (PE 5121P)







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