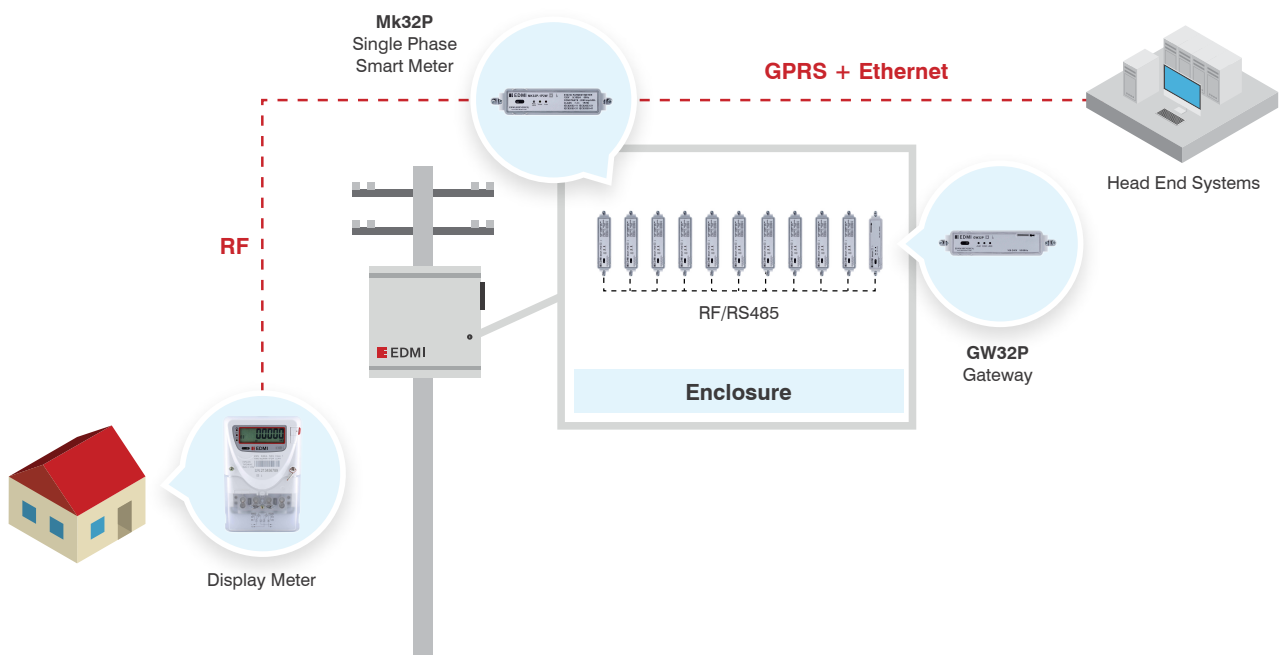


# Cluster Metering Solution (Plug-in Type)



Designed for residential use, the EDMI Cluster Metering Solution (Plug-in Type) is specially customized for Mk32P meters. It consists of an enclosure, maximum 10 units of plug-in type single phase meter, Mk32P (either 1 phase 2 wire or 1 phase 3 wire) and a GPRS Gateway, GW32P. It offers different communications such as RF or RS485 to meet different market requirements and provides an option to have CIU or display meter to be paired with each meter for anti-tamper purpose.

## I Key Benefits



### REDUCTION ON OPERATIONAL COSTS

Up to 10 units can be clustered with a single gateway in one enclosure to have space-saving and cost-effective metering setup.



### ANTI-TAMPERING

EDMI Cluster Metering Enclosure is equipped with automated tamper detection and alarm technology to protect against non-technical losses.



### 1 PHASE 2 WIRE & 1 PHASE 3 WIRE COMPATIBLE

The plug-in slots are designed to be used for either 1 phase 2 wire or 1 phase 3 wire meters and hence enable easy installation without the need to have specific plug-in slots for them respectively.



### SIMPLIFIED INSTALLATION

EDMI Cluster Metering Solution enables easy installation and allows customization according to customer's required application.



### METER READING OPTIONS

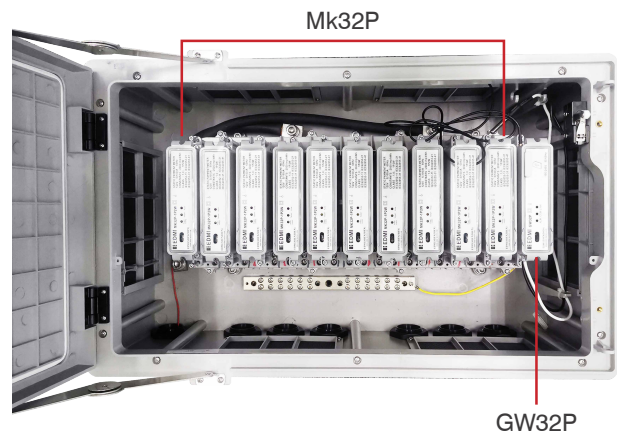
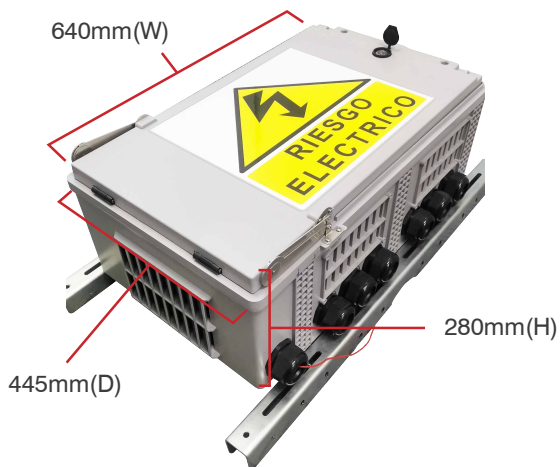
EDMI Cluster Metering Solution enables multiple data reading options such as data display for consumer as well as data reading by field service and GPRS communications.



### DISPLAY METER FOR ANTI-TAMPER

Optional display unit that looks like a meter to work with Mk32P for anti-tamper purpose.

## I Mk32P Meter Box (Enclosure)



Weight: about 50kg (1 Enclosure + maximum 10 units of Mk32P meters + 1 GPRS Gateway GW32P)

# Mk32P

Class 1 and Class 2

## Advanced Single Phase Plug-in Meter



### Standards and Compliance

- Class 1
- IEC 62052-11, 62053-21

### Measurement

- 1 phase 2 wire
- 1 phase 3 wire

### Voltage

- Nominal voltage (Un): 120V (1P2W)/ 240V (1P3W)
- Operating range: 0.8Un to 1.15Un

### Current

- 5/100A
- Current measurement sensor: Shunt (1P2W)
- L1 Current measurement sensor: Shunt;  
L2 Current measurement sensor: CT (1P3W)

### Power Consumption

- Voltage circuit: < 10VA/phase, 2W @ Vn
- Current circuit: < 2.5VA/phase @ In

### Frequency

- 50Hz - 60Hz

### Inputs/Outputs Configuration

- 4 x LED indicators

### Relay

- One internal disconnect relays (1P2W)
- Two internal disconnect relays (1P3W)

### Battery

- Internal lithium battery
- Backup time: 5 years without power or 10 years with power (Lithium Battery)

### Real-time Clock

- Precision clock accuracy: <5ppm (15 seconds per month) at 23°C

### Measured Values

- 1 element 4 quadrants
- Import/Export/Absolute Wh
- Per quadrant Wh
- Power: W, Vrms, Irms
- Power factor, frequency

### Load Survey/Profile

- Up to 8 channels and 2 independent surveys
- Intervals programmable from 1 to 60 minutes
- Energy, instantaneous readings, pulsings inputs as channel sources

### Tamper Detection and Alarms

- Reverse current detection
- Overload detection
- High Temperature alarm
- Alarms are stored in event logs

### Operation Mode

- Postpaid

### Communications

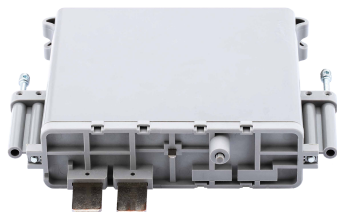
- Up to 3 independently working communication ports:
  - Optical port: FLAG (IEC 62056-21)
  - Built-in communication (both Meter & Gateway)
    - RF: 300MHz - 950MHz (configurable)
  - GPRS capable

### Protocol

- EDMl command line

### Environmental

- Specified operating range:
  - 25°C to +70°C
- Operating range limit:
  - 40°C to +70°C
- Storage range limit:
  - 40°C to +80°C
- Relative humidity:
  - Up to 75% mean, 95% non-condensing for 30 days
- Ingress protection: IP54 (Meter)



1 Phase 2 Wire



1 Phase 3 Wire

# GW32P

## GPRS Gateway



### Electrical

- Nominal voltage (Un): 110V - 240V
- Operating voltage: 96V - 312V

### Frequency

- 50 - 60 Hz

### Communications

- Optical Port
  - Type: Flag IEC 1107
  - Communication protocol: EDMl command line
- Radio Frequency (RF)
  - Type: RF 925MHz
  - Communication protocol: EDMl command line

- GPRS
- RS485

### Super Capacitor

- Support at least 2 minutes GPRS communication

# Global Energy Solution Leader

Since 1978, EDM I has been delivering the best of breed smart metering solutions with smart electricity and gas meters across transmission, commercial and industrial, residential and sub-metering markets.

EDMI prides itself on its dedication to quality, compliance and customer service. We are international leaders in smart metering innovation and recognise our obligation to combine the best of cutting-edge technologies with a strong commitment to quality and reliability.

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