



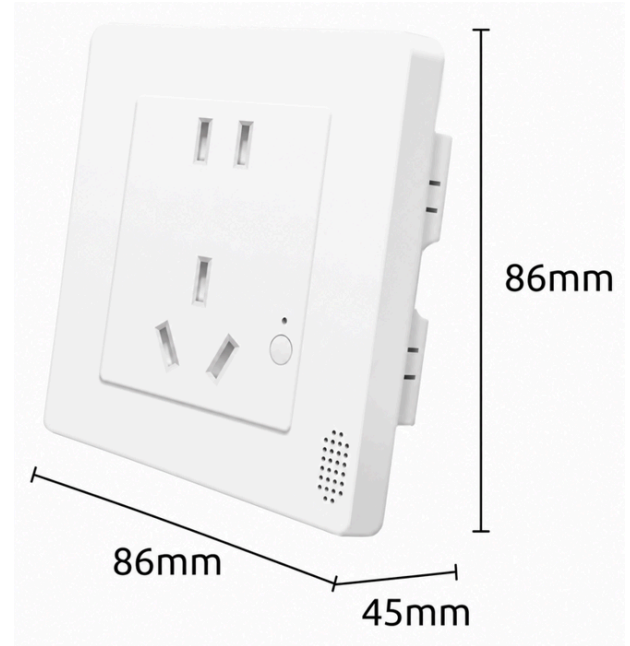
Smart Power Monitoring Socket

- RansNet Smart Energy Series

Model: **SE-PW1B2**

The RansNet SE-PW1B2 is a smart power monitoring socket designed to integrate with RansNet mfusion and customer-hosted MQTT/TCP platforms. It supports self-hosted MQTT/TCP servers — fully self-managed and suitable for private LAN and dedicated network environments.

With WiFi wireless communication, the SE-PW1B2 enables remote switching control and real-time voltage, current, power and cumulative energy monitoring — ideal for detecting whether a socket's connected load is operating normally.



KEY FEATURES

- Device status query
- Energy information query (V, A, W, kWh)
- Remote ON/OFF control
- Network config lock setting
- Button lock setting
- Timed energy data reporting
- Device soft restart
- Factory reset / restore defaults
- Input voltage: 85Vac – 265Vac
- Max load current: 10A
- Relay: 16A Omron G5RL-1A-E-HR-DC5
- Comms module: ESP32
- Communication: WiFi 2.4GHz
- Protocol: MQTT / TCP
- Remote monitoring via RansNet mfusion or customer-hosted IoT platform

APPLICATIONS

- Smart home & building automation
- Office equipment power management
- Remote facility & retail outlet monitoring
- Server room & IT equipment management
- Industrial device power control

CERTIFICATIONS & COMPLIANCE

- CE Certified
- RoHS Compliant
- IEC 62368-1 (Safety standard)
- WiFi: IEEE 802.11 b/g/n

ORDERING INFORMATION

Model	Description	Max Load Current
SE-PW1B2	Smart Power Monitoring Socket, WiFi, Single Phase	10A

TECHNICAL SPECIFICATIONS

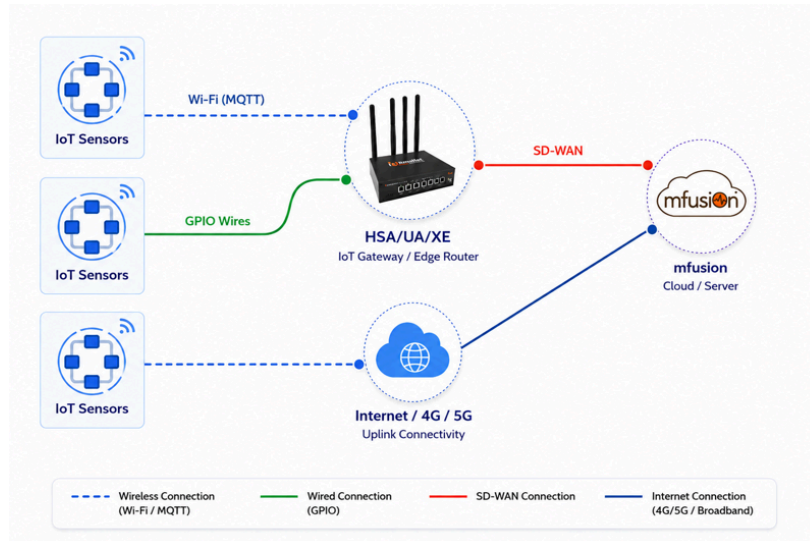
Electrical Parameters	
Input Voltage	85Vac – 265Vac
Maximum Load Current	10A
Relay Rating	16A (Omron G5RL-1A-E-HR-DC5)
Metering	Voltage, Current, Power, Cumulative kWh

Field	Type	Description / Notes
info	String	Device type, MAC, firmware version, switch state, config lock & button lock status
statistic	String	Current voltage, current, power, cumulative energy (kWh)
key	int	Control power ON/OFF — 0: OFF, 1: ON
setting	String	Modify config lock, button lock, timed reporting interval, etc.
wifiLock	int	Config lock — 0: Off, 1: On
keyLock	int	Button lock — 0: Off, 1: On
restart	String	Device soft restart
reset	String	Factory reset / restore defaults

Communication	
Communication	2.4GHz WiFi
Comms Module	ESP32
Protocol	MQTT / TCP
Server Support	RansNet mfusion Cloud or self-hosted MQTT/TCP
Transmission Range	Global (via IoT cloud platform)

Communication & Control	
Communication	WiFi 2.4GHz, IEEE 802.11 b/g/n
Protocol	MQTT / TCP
Server Support	mfusion or customer-hosted MQTT/TCP
Remote Control / Metering	Yes — app/web; Voltage, Current, Power, kWh

DEPLOYMENT ARCHITECTURE



Layer	Function
SE-PW1B2	Measures electrical data including voltage, current, power and cumulative energy, and supports remote ON/OFF control via WiFi using MQTT/TCP.
RansNet Edge Router	Secure WiFi/4G/5G/VPN uplink for distributed sites. Bridges SE-PW1B2 to MQTT broker and mfusion.
SD-WAN	Securely transport IoT data across any private/public underlay infrastructure.
mfusion Platform	Centralized monitoring, alarms, energy trends, remote ops, multi-site & tenant management, API integration.

