

Product Brief ZOE-MP1, Model 5010P



Smart Energy Wireless Metering Smart Plug

This on/off plug adapter enables remote control and monitoring of lamps and appliances, making them part of a Home Area Network (HAN.) The device responds to Load Control and Price events sent by an electric utility and to On/Off commands from an Energy Service Portal (ESP) or other controllers in the network. The adapter also measures the power delivered enabling the intelligent management of lighting and other appliances to maximize energy conservation while taking advantage of the lowest rates offered by electric utilities. Use of the ZigBee® Smart Energy (SEP 1.1) Profile ensures compatibility with the emerging standards for smart homes/buildings being deployed around the world.



Benefits

- Remotely controls and monitors lighting and other appliances such as TVs, audio-visual equipment, lamps, etc.
- Measures the energy consumed by the appliance, allowing total energy management by the consumer or an electric utility.
- Controlled via ZigBee, a wireless RF protocol that is rapidly becoming the standard for energy management. Enables appliances to become part of the emerging smart ecosystems.
- Small size and convenient connectivity means easy retrofitability and low installation cost.
- Safety tested to UL and CSA standards.
- ZigBee Smart Energy certified.

SPECIFICATIONS:

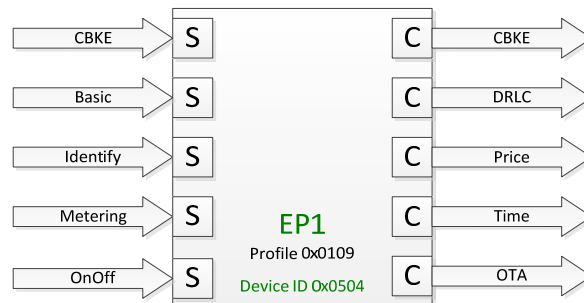
Electrical	
Operating Voltage:	95 - 240V AC
Operating Frequency:	47-63 Hz.
Max. Load Current:	15 Amps @ 120V AC (10 Amps @ 240V AC)
Operating power:	Load energized: < 0.65 Watts. Standby: < 0.2 Watts.
Surge protection:	MOV rated for 300V
Mechanical	
Size:	4.0" L X 2.5" W X 1.5" H
Weight:	4.1 Oz.
Mounting:	Through 3-prong plug
Local Load Control:	Yes, through pushbutton
Environmental	
Temperature:	-25—50 °C (-13—122 °F)
Humidity:	5—90 %RH (non-condensing)

OTHER SPECIFICATIONS:

Indicators:	Dual-color LED: Multi-function to indicate network status, binding mode, fault conditions, opt-in, opt-out, and load energized.
Local Control:	Multifunction pushbutton. Local load control. Used for joining network, permit joining, opt-in, opt-out, price update and binding.
ZigBee function:	Manufacturer ID: 0x1075; ZigBee Router
Calibrated Metering Accuracy:	As normally supplied accuracy is 1-3%. Calibratable to better than 0.5% 2W-1500W on special order. Supports IEC61036/60687, and IEC62053-22/-23.

SE Profile: (0x0109)		Device ID: 0x0504		Load Control
Cluster ID	Cluster Name	Client/Server	Cluster Description	
0x0000	Basic	Server	Attributes for determining basic information and setting and enabling device	
0x0003	Identify	Server	Attributes and commands for putting a device into Identification mode	
0x0006	On/Off	Server	Attributes and commands to turn relay ON and OFF	
0x000A	Time	Client	Attributes and commands to interface to a real-time clock	
0x0019	OTA	Client	Attributes and commands to enable over-the-air firmware upgrades	
0x0700	Price	Client	Provides mechanism for communicating electricity pricing information within the premise	
0x0701	Demand Response and Load Control	Client	Interface to the functionality of Smart Energy Demand Response and Load Control	
0x0702	Simple Metering	Server	Provides mechanism to retrieve electric power usage	
0x0800	Key Establishment	Client/Server	Attributes and commands necessary for managing secure communication between ZigBee devices	

ZOE-MP Device Definitions



Relay Logic

Relay R1 is normally on (load energized)
 On DRLC Event with 100% reduction, relay is off
 On DRLC event completion, load is energized
 OnOff Commands on endpoint 1 affect relay

