SmartZone™ Gateway EP042

specifications

The gateway is installed as part of a primary/secondary topology, where the gateway retains all critical intelligence and monitoring power supply for up to two connected power devices and four environmental sensors through one single IP address. The gateway consolidates all data captured from connected devices and sensors and provides the ability to display baseline operational data through internal firmware or allow integration for sharing of data with Panduit® SmartZone™ Software platforms. The gateway provides simple network management protocol (SNMP) features that allows for the monitoring of conditions that warrant administrative attention, as well as HTTP/HTTPS protocols for remote management capabilities.

technical information

Dimensions:	9.17 in. x 3.11 in. x 1.46 in. (233mm x 79mm x 37mm)
Weight:	1.76 lbs (0.8 kg); 3.2 lbs (1.46 kg) packaged
Packaging:	1.46 lbs (0.66 kg)
Mounting:	Zero RU mounting

key features and benefits

Centralized device management	Captures inputs from up to two connected power devices and four environmental sensors into one intelligent gateway to consolidate monitoring and management of operational data, simplify troubleshooting and allow faster polling of data
Single IP address	Allows all connected power devices and sensors to be combined through one single gateway IP address, reducing the need for separate IP ports, IP capital costs, and management overhead
Primary/secondary network topology	Houses the intelligence and monitoring power supply for connected devices within the gateway itself to simplify the network architecture and lower overall power consumption
SNMP enabled	Uses SNMP technology to detect potential service impacting power and environmental conditions and send timely administrative alerts to mitigate operational downtime
HTTP/HTTPS web interface	Provides authentication safeguards to securely allow users to configure, monitor, and control the gateway through remote management
Zero RU form factor	Allows gateway to be mounted directly to or within a rack enclosure, simplifying and accelerating deployment time and reducing the need for valuable rack space
SmartZone™ Software platform integration	Consolidates power and environmental data to be utilized by SmartZone™ Software platforms for real-time monitoring and display, management, and automated documentation

applications

Panduit® SmartZone™ Solutions enable comprehensive energy and physical infrastructure efficiency in data centers, facility domains, and enterprise estates through intelligent software, hardware, and services that provide granular visibility of power, space, environmental, asset, and connectivity information that is accurate and actionable for operational optimization.

SmartZone™ Gateways enable a unique and cost-effective infrastructure topology that supplies intelligence and monitoring power to connected SmartZone™ Power Monitoring Devices and Sensors. This simplifies the network architecture by consolidating the monitoring, management, and control of these devices through one single IP address. This information can then be displayed via internal firmware or utilized by SmartZone™ Software platforms for real-time monitoring and display, management, and automated documentation of operational metrics. SmartZone™ Gateways are ideal solutions for brownfield and greenfield data centers and telco areas, large or small.

The SmartZone™ Gateway EP042 is a multipurpose gateway that supports up to two connected power devices and four environmental sensors. It can be installed on a per rack basis as a zero RU unit that can be mounted directly to, or within, the rack enclosure.

SmartZone™ Gateway EP042

Gateway EP042 test data

Power Supply	
Input Power	100~240 VAC
Input Connector	1 x IEC C14 Inlet
Power Consumption	(Max) 40W
Additional Information	Isolated supply
Internal PSU	Single
Operating Environment	
Operating Temperature	32°F to 113°F (0°C to 45°C)
Storage Temperature	14°F to 158°F (-10°C to 70°C)
Operating Humidity	15% to 85% RH
Storage Humidity	5% to 90% RH
MTBF	>100,000 Hrs
Connectivity and Networking	
Network Type	Fast Ethernet (802.3u)
Network Connection	RJ45
Link Speeds	10/100 Mbps with auto negotiation
Network Indications	Connection LED (Green); Network Speed LED (Yellow)
Sensors	
Number of Inputs	Four sensor inputs
Input Connector	8-way RJ45
Parameters Monitored	Temperature, humidity, airflow, external temperature, smoke, water, magnetic door contact, PIR, and any 0-10 VDC output sensor
Temperature Monitoring Range	32°F to 140°F (0°C to 60°C)
Temperature Monitoring Accuracy	±5% Standard Transducer @ 68°F (20°C)
Temperature Hysteresis	Programmable 32°F to 50°F (0.1°C to 9.9°C) in 0.1 increments
Humidity Monitoring Range	30% to 90% relative humidity
Humidity Monitoring Accuracy	±5% RH @ 77°F (25°C)
Humidity Hysteresis	Programmable 0.1% RH to 9.9% RH in 0.1 increments RH
Analogue Resolution	12 Bit A/D
Additional Information	Inputs are not isolated; auto detection of supported sensors
PDU Monitoring and Control	
Number of Inputs	Two single phase 110~250 VAC and/or three phase 208~415 VAC; star or delta power three-phase power strips; DC monitoring -48 VDC
PDU In/Out Connector	RJ45
Parameters Monitored	Volts, amps, total kVA, total kWh, total power factor and frequency
Voltage Monitoring Range	0V to 500V
Voltage Monitoring Accuracy	± 2%
Current Monitoring Range	0A to 65A
kWh Monitoring Range	0 kWh to 429496729 kWh
kWh Monitoring Accuracy	Dependant on PDU
Monitoring and Configuration	
The following monitoring and configuration methods are provided	Web management interface via HTTP or HTTPS (Secure); configurable SNMP and email alarm messages
LCD Status Monitor	
The optional backlit LCD status monitor can display the following	Summary page displaying configured PDUs and inputs 1 and 2; all 4 digital inputs; all 2 PDUs
The following system information is also available	Firmware version, IP address, subnet mask, gateway, MAC address
Additional Information	Backlit, powered from unit (no additional power source required)

SmartZone™ Gateway EP042

Gateway EP042 test data (continued)

Front Panel Indicators	
Green LED Network	Ethernet connection present (flashing indicates traffic present)
Yellow LED Network Speed	Off indicates 10Mbps network; On indicates 100Mbps network link
Green LED CPU Status	Flash indicates correct operation of the Gateway EP042 unit
Red LED Alarm Status	One or more sensor inputs has exceeded a pre-set threshold
Blue LED	Low voltage power supply pre-set
Yellow LED AC Feed A	Presence of AC power on Input Feed A
Rear Panel Indicators	
Green LED CPU Status	Flashing indicates PDU Expansion Units CPU alive
Green LED Power On	Low voltage power supply present
Red LED	One or more sensor inputs has exceeded a pre-set threshold
Network Indications	Connection LED (Green); Network Speed LED (Yellow)
Sensors	
Number of Inputs	4 sensor inputs
Input Connector	8 way RJ45
Parameters Monitored	Temperature, humidity, smoke, door contact, shock, water, PIR and airflow sensors, and any 0-10 VDC output sensor
Temperature Monitoring Range	32°F to 140°F (0°C to 60°C)

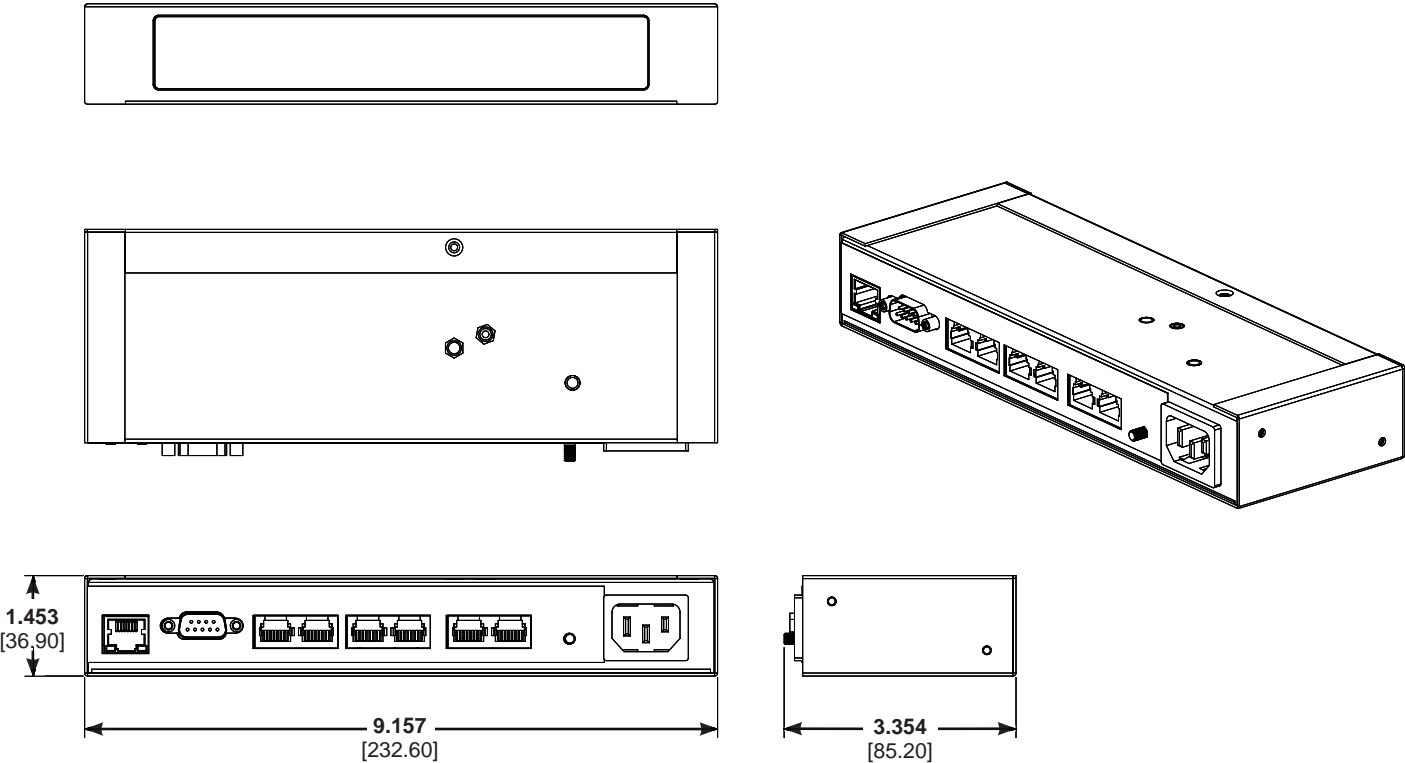## part numbers

Gateway EP042	
ZARKMS-01-99	SmartZone™ Gateway EP042 – no power cable
ZARKMS-01-NA	SmartZone™ Gateway EP042 – IEC - NEMA 5-15 power cable
ZARKMS-01-UNI	SmartZone™ Gateway EP042 – IEC-IEC power cable
Sensors	
ZEAIR-02	Air Flow Sensor
ZEDIC05-01	Digital Input Sensor
ZEDL05-02	Door contact sensor (magnetic type)
ZEDL05-01	Door contact sensor (micro switch)
ZAPDUMODKIT	External LCD Display Kit with case enclosure
ZETHL-13	External Temperature Sensor
ZETHL-10	Humidity Sensor
ZAPDUMOD-03	LCD Display Module with selector switches
ZEPIR-04	PIR Sensor
ZEDIFFPRESS01	Pressure Transducer (0 to 0.1)
ZEDIFFPRESS02	Pressure Transducer (0 to 1.0)
ZEDIFFPRESS04	Pressure Transducer (0 to 30)
ZEDIFFPRESS03	Pressure Transducer (0 to 5.0)
ZESS04-01	Shock Sensor
ZESMA05-01	Smoke Detector
ZETHL-12	Temperature Sensor
ZETHL-11	Temperature/Humidity Sensor
ZEWD3-05	Water Sensor (contact type)
ZEWS-03-03	Water Sensor (rope type)

part numbers (continued)

Included in all SmartZone™ Rack Energy Kits	
RMSC2T2PCLA01	(2) Clamp Meter (non-invasive), (1) Gateway, (2) Temperature Sensors, and Rack Monitoring Software
RMSQ2T2POB01	(2) Zero-RU In-line Meter, (1) Gateway, (2) Temperature Sensors, and Rack Monitoring Software
RMSL2T1POB09	(1) 1 RU In-line Meter (non-invasive), (1) Gateway, (2) Temperature Sensors, and Rack Monitoring Software
RMSP2T2POB17	(2) Rack PDUs, (1) Gateway, (2) Temperature Sensors, and Rack Monitoring Software

Gateway EP042 dimensions

1.453 [36.90]

9.157 [232.60]

3.354 [85.20]

Dimensions are in inches. [Dimensions in brackets are metric].

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or by phone: 800.777.3300

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