

SmartStruxure™ Lite Solution

MPM Series

Multi-purpose Manager (MPM-UN)

SmartStruxure™ Compatible

Site and zone managers providing wired and wireless integrated control solutions for HVAC, lighting, and metering, as well as remote management via StruxureWare™ Building Expert.



Get Control. Get Efficient. Get Value.

Schneider
Electric

SmartStruxure Lite solution Multi-Purpose Manager Features



Multi-Purpose Management devices (MPM) enable the control, monitoring, and management of entire sites via StruxureWare Building Expert. They can also be used for wired and wireless zone control in larger buildings.

Control features

- Control of wired end-devices (6 inputs, 6 outputs)
- Wireless control of EnOcean end-devices (optional, 128 points per MPM)
- Wireless control of ZigBee Pro end-devices (optional, 30 peripherals per MPM)
- Modbus (optional)
- Programmable via StruxureWare Building Expert
- Points visible through BACnet®, EcoStruxure® Web Services (EWS), and oBIX®
- Real-time response to scripting/graphical programming

Applications

Supports HVAC, lighting, and metering application including:

- HVAC and lighting room and zone control
- Unitary equipment such as rooftop HVAC units, air handling units, heat pumps, and dehumidification units
- Mechanical rooms and equipment cabinets
- Metering: Modbus option enables management of a wide variety of power meters and other metering devices. Can also manage wireless meters and sub-meters

Networking Between Units

- Wireless: ZigBee Pro wireless mesh network (self-forming/healing, 25 nodes per network)
- Wired: Daisy chain
- IP/Ethernet: Ethernet port

Embedded Gateway

- EnOcean (wireless) to BACnet IP/oBIX/EWS
- ZigBee Pro (wireless) to BACnet IP/oBIX/EWS
- Modbus to BACnet IP/oBIX/EWS

StruxureWare Building Expert

All MPM models have an embedded web server hosting Building Expert, a web-based intelligent building management system that allows complete configuration and management of small sites. Building Expert offers dashboards, maps, graphical programming, scripting, scheduling, trend logging and more. It is the perfect mini-iBMS for small and medium buildings. It can also be integrated with other SmartStruxure solutions.



AT A GLANCE

Networking

- Ethernet connector for BACnet Ethernet/IP
- 802.15.4 wireless mesh (25 nodes/network)
- Wired serial bus for daisy chain (CANbus)

Third-party interoperability

- BACnet, EWS, oBIX, FTP
- EnOcean (wireless)
- ZigBee Pro (wireless)
- Modbus
- CANbus

Inputs/Outputs

- Inputs: 6 universal (analog: 4-20mA, 0-10V, digital: dry contact, thermistor: 1-100K)
- Outputs: 2 relay, 4 analog
- EnOcean (wireless): 128 points
- ZigBee Pro (wireless): 30 peripherals

Other

- Real-time clock
- 400MHz processor
- 64MB of RAM
- 2GB of Flash for local storage
- StruxureWare Building Expert

SmartStruxure Lite solution Multi-Purpose Manager Specifications

Specifications

Power

Voltage

24VAC; $\pm 15\%$; 50/60HZ
24VDC $\pm 10\%$

Typical consumption

5 VA + Output (VAC)
1.6 W + Output (VDC)

General

Processor

ARM9 32-bit, 400MHz

Memory

64MB flash

Storage

2GB flash for local storage

Real-time clock

Battery backed (10,000 hours)

Communication

ZigBee Pro, EnOcean, BACnet
CANbus (125-500 Kbps)
Ethernet (10/100 Mbps)

Enclosure

Material

Rigid ABS

Dimensions

132mm (5.20 in) x 126mm (4.96 in)

Rating

UL94V0-5VB

Mounting

Din-rail, wall or ceiling mount

Environmental

Operating Temperature

0°C (32°F) - 60°C (140°F)

Storage Temperature

-20°C (-4°F) - 60°C (140°F)

Relative Humidity

0 to 90% non-condensing

Inputs

Quantity

6 universal inputs (configurable)

Analog inputs

Current: 4-20mA with 249 external resistor
Voltage: 0-10V

Digital inputs

Dry contacts

Thermistor

1 k - 100 k

Resolution

14-bit

Outputs

Analog (x4)

0-12V, nominal 50mAmax each, 12-bit resolution

Relay (x2)

24V, 1.1 Amp per relay

RS485 (optional)

Supported protocols

Modbus

EnOcean (optional)

Frequency

315MHz, 868MHz, 902MHz

Receiver Sensitivity

-95dBm

Conducted Output Power

5dBm

Range

Recommended: 45ft/15m
Line of sight: 100ft/30m

Antenna

External whip, RP SMA 0dBi

ZigBee Pro (optional)

Frequency

2400 - 2483.5MHz, 16RF channels

Data rate / Mod.type

250Kbps

Receiver Sensitivity

-101dBm/-105dBm (amplified)

Nominal Output Power

8dBm/18dBm (amplified)

Range

Recommended to MPM: 150ft/50m
Line of sight to MPM: 300ft/100m
Recommended to peripherals: 50ft/17m
Line of sight to peripherals: 100ft/30m

Antenna

External whip, RP SMA 2.5dbi

StruxureWare™ Building Expert

Software type

Embedded web interface

Local installation

None necessary

PDA/Tablet/Smartphone compatible

Yes, using compatible browsers

Browser compatibility

Firefox ESR

Agency approvals

Energy Management Equipment, UL 916, Fourth Edition, December 23, 1998, rev. December 17, 2007

CSA Standard for Signal Equipment C22.2 No. 205-M1983 (R2004)

CFR47 FCC Part15, Subpart B:2009

ICES-003: Issue 4 (2004)

CE

Japanese Radio Law

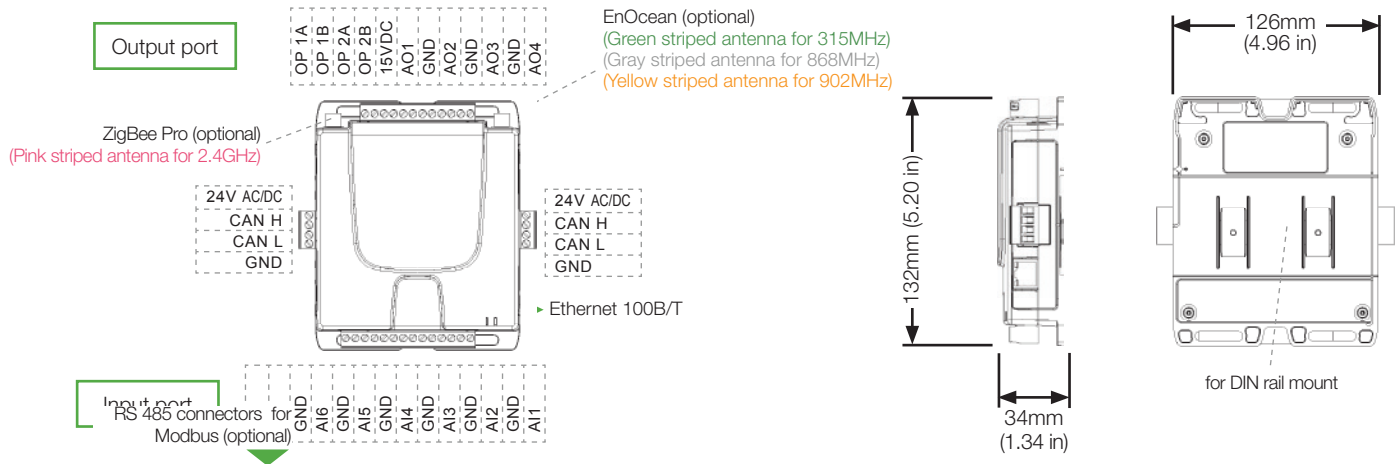
RoHS

Disclaimer

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.



SmartStruxure Lite solution Multi-Purpose Manager Specifications (continued)



Ordering information

Part numbers	Manager		EnOcean*			ZigBee Pro	I/O			VAV	
	Building Expert	StruxureWare integration	315 MHz	868 MHz	902 MHz	High power	6 inputs	6 outputs	Modbus	Flow sensor	Actuator
MPM-UN-004-5045	x	x					x	x	x		
MPM-UN-014-5045	x	x				x	x	x	x		
MPM-UN-C00-5045	x	x	x				x	x			
MPM-UN-C04-5045	x	x	x				x	x	x		
MPM-UN-CI4-5045	x	x	x			x	x	x	x		
MPM-UN-D04-5045	x	x		x			x	x	x		
MPM-UN-DI4-5045	x	x		x		x	x	x	x		
MPM-UN-E00-5045	x	x			x		x	x			
MPM-UN-E04-5045	x	x			x		x	x	x		
MPM-UN-EI4-5045	x	x			x	x	x	x	x		

*EnOcean: Contact EnOcean for the latest information about the frequency in your country.
 315MHz: Americas, Hong Kong, India, Japan, Thailand, Taiwan
 868MHz: Europe, China, Malaysia, Singapore, Vietnam, New Zealand
 902MHz: USA has transitioned to 902 MHz in 2013. Other countries may do so as well.

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