

BACnet Protocol Implementation Conformance Statement

Product

Date:	21/02/2019	Vendor Name:	Magnum Innovations
Product Name:	Motion/Lux Sensor	Application Software V.:	n/a
Product Model Number:	Mx-ML2	Firmware Revision:	x.x.x.x
Product Description:	Motion/Lux Sensor	BACnet Protocol Revision:	n/a

Vendor Information

Magnum Innovations LLC 5675 Hudson Industrial Parkway #3 Hudson, OH 44236 USA www.magnum-innovations.com
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Product Description

The Mx-ML2 is a wireless, self powered, passive infrared sensor that ensures reliable detection of occupant presence, and is ideally suited for occupancy-based lighting control.

BACnet Standardized Device Profile (Annex L):

<input type="checkbox"/> BACnet Operator Workstation (B-OWS)	<input type="checkbox"/> BACnet Advanced Application Controller (B-AAC)
<input type="checkbox"/> BACnet Advanced Operator Workstation (B-AWS)	<input type="checkbox"/> BACnet Application Specific Controller (B-ASC)
<input type="checkbox"/> BACnet Operator Display (B-OD)	<input checked="" type="checkbox"/> BACnet Smart Sensor (B-SS)
<input type="checkbox"/> BACnet Building Controller (B-BC)	<input type="checkbox"/> BACnet Smart Actuator (B-SA)

BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-B	Data Sharing, Read Property B
DS-RPM-B	Data Sharing, Read Property Multiple B
DS-WP-B	Data Sharing, Write Property B
DS-WPM-B	Data Sharing, Write Property Multiple B
DS-COV-B	Data Sharing, COV B
DS-COVP-B	Data Sharing, COVP N

Segmentation Capability:

<input checked="" type="checkbox"/> Able to transmit segmented messages	Window Size: 1515 bytes
<input checked="" type="checkbox"/> Able to receive segmented messages	Window Size: 1515 bytes

Standard Object Types Supported (A5-06-02):

Object	Optional Properties Supported	Writeable Properties	Property Range Restrictions
Binary Input Range selection	Description Inactive Text Active Text Reliability	None	Range 0 – 1020, Range 0 - 510
Analog Input Illumination 0-1020lx	Description Reliability	None	0 – 1020 lux
Analog Input Illumination 0-510lx	Description Reliability	None	0 – 510 lux
Analog Input Supply voltage (linear)	Description Reliability	None	0 – 5.10 V
Analog Output {HeartBeat}	Description	Present Value	0 – 1000
Analog Input {RSSI}	Description	none	0 – 255
Binary Input {Signal}	Description Inactive Text Active Text Change State Time Change State Count Time State Count Reset	none	Invalid, Valid
MultiStateInput {Manufacturer}	Description	none	EnOcean Manufacturer List

Standard Object Types Supported (A5-07-01):

Object	Optional Properties Supported	Writeable Properties	Property Range Restrictions
Binary Input Supply voltage availability	Description Inactive Text Active Text Reliability	None	SV is not supported, SV is supported
MultiStateInput PIR Status	Description Reliability	None	PIR off PIR on
Analog Input Supply voltage (linear)	Description Reliability	None	0 – 5.0 V
Analog Output {HeartBeat}	Description	Present Value	0 – 1000
Analog Input {RSSI}	Description	none	0 – 255
Binary Input {Signal}	Description Inactive Text Active Text Change State Time Change State Count Time State Count Reset	none	Invalid, Valid
MultiStateInput {Manufacturer}	Description	none	EnOcean Manufacturer List

Standard Object Types Supported (A5-07-02):

Object	Optional Properties Supported	Writeable Properties	Property Range Restrictions
Binary Input PIR Status	Description Reliability	None	Uncertain, Motion detected
Analog Input Supply voltage (linear)	Description Reliability	None	0 – 5.0 V
Analog Output {HeartBeat}	Description	Present Value	0 – 100
Analog Input {RSSI}	Description	none	0 – 255
Binary Input {Signal}	Description Inactive Text Active Text Change State Time Change State Count Time State Count Reset	none	Invalid, Valid
MultiStateInput {Manufacturer}	Description	none	EnOcean Manufacturer List

Standard Object Types Supported (A5-07-03):

Object	Optional Properties Supported	Writeable Properties	Property Range Restrictions
Binary Input PIR Status	Description Reliability	None	Uncertain, Motion detected
Analog Input Illumination (linear)	Description Reliability	None	0 – 1000 lux
Analog Input Supply voltage (linear)	Description Reliability	None	0 – 5.0 V
Analog Output {HeartBeat}	Description	Present Value	0 – 255
Analog Input {RSSI}	Description	none	0 – 1000
Binary Input {Signal}	Description Inactive Text Active Text Change State Time Change State Count Time State Count Reset	none	Invalid, Valid
MultiStateInput {Manufacturer}	Description	none	EnOcean Manufacturer List

Standard Object Types Supported (A5-08-01):

Object	Optional Properties Supported	Writeable Properties	Property Range Restrictions
Binary Input Occupancy button	Description Reliability	None	Button pressed, Button released
Binary Input PIR Status	Description Reliability	None	PIR on, PIR off
Analog Input Temperature (linear)	Description Reliability	None	0 – 51°C 32 – 124°F
Analog Input Illumination (linear)	Description Reliability	None	0 – 510 lux
Analog Input Supply voltage (linear)	Description Reliability	None	0 – 5.10 V
Analog Output {HeartBeat}	Description	Present Value	0 – 1000
Analog Input {RSSI}	Description	none	0 - 255
Binary Input {Signal}	Description Inactive Text Active Text Change State Time Change State Count Time State Count Reset	none	Invalid, Valid
MultiStateInput {Manufacturer}	Description	none	EnOcean Manufacturer List

Standard Object Types Supported (A5-08-02):

Object	Optional Properties Supported	Writeable Properties	Property Range Restrictions
Binary Input Occupancy button	Description Reliability	None	Button pressed, Button released
Binary Input PIR Status	Description Reliability	None	PIR on, PIR off
Analog Input Temperature (linear)	Description Reliability	None	0 – 51°C 32 – 124°F
Analog Input Illumination (linear)	Description Reliability	None	0 – 1020 lux
Analog Input Supply voltage (linear)	Description Reliability	None	0 – 5.10 V
Analog Output {HeartBeat}	Description	Present Value	0 – 1000
Analog Input {RSSI}	Description	none	0 – 255
Binary Input {Signal}	Description Inactive Text Active Text Change State Time Change State Count Time State Count Reset	none	Invalid, Valid
MultiStateInput {Manufacturer}	Description	none	EnOcean Manufacturer List

Data Link Layer Options:

<input type="checkbox"/> BACnet IP, (Annex J)	<input type="checkbox"/> MS/TP slave (Clause 9)
<input type="checkbox"/> BACnet IP, (Annex J), Foreign Device	<input type="checkbox"/> Point-To-Point, EIA 232 (Clause 10)
<input type="checkbox"/> ISO 8802-3, Ethernet (Clause 7)	<input type="checkbox"/> Point-To-Point, modem
<input type="checkbox"/> ATA 878.1, 2.5 Mb. ARCNET (Clause 8)	<input type="checkbox"/> LonTalk, (Clause 11)
<input type="checkbox"/> ATA 878.1, EIA-485 ARCNET (Clause 8)	<input type="checkbox"/> BACnet/ZigBee (ANNEX O)
<input type="checkbox"/> MS/TP master (Clause 9)	<input checked="" type="checkbox"/> Other: EnOcean wireless

Device Address Binding:

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Networking Options:

<input type="checkbox"/> Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.	
<input type="checkbox"/> Annex H, BACnet Tunneling Router over IP	
<input type="checkbox"/> BACnet/IP Broadcast Management Device (BBMD)	
Does the BBMD support registrations by Foreign Devices?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does the BBMD support network address translation?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Network Security Options:

<input type="checkbox"/> Non-secure Device - is capable of operating without BACnet Network Security
<input type="checkbox"/> Secure Device - is capable of using BACnet Network Security (NS-SD BIBB)
<input type="checkbox"/> Multiple Application-Specific Keys:
<input type="checkbox"/> Supports encryption (NS-ED BIBB)
<input type="checkbox"/> Key Server (NS-KS BIBB)

Character Sets Supported:

<input checked="" type="checkbox"/> ISO 10646 (UTF-8)	<input type="checkbox"/> IBM™/Microsoft™ DBCS	<input type="checkbox"/> ISO 8859-1
<input type="checkbox"/> ISO 10646 (UCS-2)	<input type="checkbox"/> ISO 10646 (UCS-4)	<input type="checkbox"/> JIS X 0208