

# BACnet Protocol Implementation Conformance Statement

## HPD3 IP

**Date:** 6. 12. 2022

**Vendor Name:** STEINEL GmbH

**Product Name:** 1128

**Application Software Version:** 1.4

**BACnet Protocol Revision:** 19

### Product Description:

Next Level Sensor Technology. The HPD3 is designed for ceiling mounting and detects the presence of people in the room, counts and locates them within flexibly definable detection zones. The optical sensor HPD3 offers the possibility to measure temperature and humidity. It is the ideal solution for efficient floor space utilisation and the needs-based operation of light, heating and air conditioning. With integrated HF detector and IP interface. IoT link through REST API, MQTT and BacNet. Available in surface-mounted and flush-mounted versions.

### BACnet Standardized Device Profiles Supported (Annex L):

- BACnet Cross-Domain Advanced Operator Workstation (B-XAWS)
- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Workstation (B-OWS)
- BACnet Operator Display (B-OD)
- BACnet Advanced Lighting Workstations (B-ALWS)
- BACnet Lighting Operator Display (B-LOD)
- BACnet Advanced Life Safety Workstation (B-ALSWS)
- BACnet Life Safety Workstation (B-LSWS)
- BACnet Life Safety Annunciator Panel (B-LSAP)
- BACnet Advanced Access Control Workstation (B-AACWS)
- BACnet Access Control Workstation (B-ACWS)
- BACnet Access Control Security Display (B-ACSD)
- BACnet Advanced Elevator Workstation (B-AEWS)
- BACnet Elevator Workstation (B-EWS)
- BACnet Elevator Display (B-ED)
- BACnet Advanced Lighting Control Station (B-ALCS)
- BACnet Lighting Control Station (B-LCS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Actuator (B-SA)
- BACnet Smart Sensor (B-SS)
- BACnet Lighting Supervisor (B-LS)
- BACnet Lighting Device (B-LD)
- BACnet Advanced Life Safety Controller (B-ALSC)
- BACnet Life Safety Controller (B-LSC)
- BACnet Advanced Access Control Controller (B-AACC)
- BACnet Access Control Controller (B-ACC)
- BACnet Advanced Elevator Controller (B-AEC)
- BACnet Elevator Controller (B-EC)
- BACnet Elevator Monitor (B-EM)
- BACnet Router (B-RTR)
- BACnet Gateway (B-GW)
- BACnet Broadcast Management Device (B-BBMD)
- BACnet Access Control Door Controller (B-ACDC)
- BACnet Access Control Credential Reader (B-ACCR)

BACnet Secure Connect Hub (B-SCHUB)

BACnet General (B-GENERAL)

**BACnet Interoperability Building Blocks Supported (Annex K):**

DS-RP-B

DS-RPM-B

DS-WP-B

DS-WPM-B

DS-COV-B

**Segmentation Capability:**

Able to transmit segmented messages

Window Size \_\_\_\_\_

Able to receive segmented messages

Window Size \_\_\_\_\_

**Standard Object Types Supported:**

**Device Object:**

<b>Properties</b>
Object Identifier
Object Name
Object Type
Active COV Subscriptions
APDU Timeout
Application Software Version
Database Revision
Description
Device Address Binding
Firmware Revision
Max APDU Length
Model Name
Number of APDU Retries
Object List
Object Types Supported
Protocol Revision
Protocol Version
Segmentation Support
Services Supported
System Status
Vendor Identifier
Vendor Name

**Analog Input Object:**

<b>Properties</b>
Object Identifier
Object Name
Object Type
COV Increment
Description
Event State
Out of Service
Present Value
Status Flags
Units

**Binary Input Object:**

Properties
Object Identifier
Object Name
Object Type
Description
Event State
Out of Service
Polarity
Present Value
Status Flags

**Analog Value Object:**

Properties
Object Identifier
Object Name
Object Type
COV Increment
Description
Event State
Out of Service
Present Value
Status Flags
Units

**BACnet Data Link Layer Options:**

- ARCNET (ATA 878.1), 2.5 Mb. (Clause 8)
- ARCNET (ATA 878.1), EIA-485 (Clause 8), baud rate(s) \_\_\_\_\_
- BACnet IP, (Annex J)
- BACnet IP, (Annex J), BACnet Broadcast Management Device (BBMD)
- BACnet IP, (Annex J), Network Address Translation (NAT Traversal)
- BACnet IPv6, (Annex U)
- BACnet IPv6, (Annex U), BACnet Broadcast Management Device (BBMD)
- BACnet/ZigBee (Annex O) \_\_\_\_\_
- Ethernet, ISO 8802-3 (Clause 7)
- LonTalk, ISO/IEC 14908.1 (Clause 11), medium: \_\_\_\_\_
- MS/TP master (Clause 9)
  - Master     Slave
  - Non-isolated transceiver     Isolated transceiver
  - Local 47K ohms bias resistors     None     Other: \_\_\_\_\_
  - Transceiver unit loading:  1     1/2     1/4     1/8
  - Data rates:  9600     19200     38400     57600     76800     115200
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): \_\_\_\_\_
- Point-To-Point, modem, (Clause 10), baud rate(s): \_\_\_\_\_
- BACnet Secure Connect (Annex AB)
  - BACnet Secure Connect Node

If direct connections are supported:

Maximum number of simultaneous direct connections initiated: \_\_\_\_\_

Maximum number of simultaneous direct connections accepted: \_\_\_\_\_

BACnet Secure Connect Hub Function

Maximum number of simultaneous hub connections accepted: \_\_\_\_\_

HTTPS Proxy Support

List the types of HTTPS proxies supported: \_\_\_\_\_

Additional cipher suites supported beyond those required for TLS V1.3

The additional cipher suites supported using the cipher suite names as of the TLS Cipher Suite Registry at IANA (See RFC 8446):  
\_\_\_\_\_  
\_\_\_\_\_

Additional Transport Layer Security versions other than V1.3 supported

The TLS versions other than V1.3 that are supported, including the supported cipher suites for the version beyond those required, using the cipher suite names as defined by the TLS version supported:  
\_\_\_\_\_  
\_\_\_\_\_

Generates private keys internally, and provides matching certificate signing requests.

DNS host name resolution supported (RFC 1123)

mDNS host name resolution supported (RFC 6762)

Other:

#### Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)  Yes  No

#### Networking Options:

Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.

Annex H, BACnet Tunneling Router over IP

#### Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

ISO 10646 (UTF-8)

IBM™/Microsoft™ DBCS

ISO 8859-1

ISO 10646 (UCS-2)

ISO 10646 (UCS-4)

JIS X 0208

#### Gateway Options:

N/A

**Object Instance Summary:**

Object Name	Object ID	Object Type	Min	Max	Unit	Access
Motion1	50	BI				R
Presence1	70	BI				R
Presence1HoldTime	71	AV	500	3600000	ms	RW
Brightness1	170	AI	0	2000	lx	R
Sensitivity1	190	AV	1	100	%	RW
ZonePeople0	430	AI	0	100		R
ZonePeople1	431	AI	0	100		R
ZonePeople2	432	AI	0	100		R
ZonePeople3	433	AI	0	100		R
ZonePeople4	434	AI	0	100		R
ZonePeople5	435	AI	0	100		R
ZonePeople6	436	AI	0	100		R
ZonePeople7	437	AI	0	100		R
ZonePeople8	438	AI	0	100		R
ZonePeople9	439	AI	0	100		R
ZoneBrightness0	520	AI	0	2000	lx	R
ZoneBrightness1	521	AI	0	2000	lx	R
ZoneBrightness2	522	AI	0	2000	lx	R
ZoneBrightness3	523	AI	0	2000	lx	R
ZoneBrightness4	524	AI	0	2000	lx	R
ZoneBrightness5	525	AI	0	2000	lx	R
ZoneBrightness6	526	AI	0	2000	lx	R
ZoneBrightness7	527	AI	0	2000	lx	R
ZoneBrightness8	528	AI	0	2000	lx	R
ZoneBrightness9	529	AI	0	2000	lx	R
Temperature	250	AI	-40.00	85.00	°C	R
Humidity	230	AI	0.00	100.00	%RH	R
TemperatureCorrection	270	AV	-12.00	12.00	°C	RW
NumberOfPeopleTotal	470	AI	0	100		R
VOC	280	AI	-2	5000	ppb	R
CO2	300	AI	-2	5000	ppm	R
LowAmbientLight	680	BI				R
IAQ	700	AI	-1	32767		R

