FieldServer Protocol Driver Sheet
BACnet PIC Statement

Rev. 3.D

1 BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

Date	May 2018
BACnet Vendor Name	MSA Safety
BACnet Vendor ID	37
Product Name	QuickServer, ProtoCessor, ProtoCarrier, ProtoNode, ProtoAir, EZ Gateway
Product Model Number	QuickServer (FS-QS-1XYZ), ProtoNode (FPC-NXY), ProtoCarrier (FPC-CXY), ProtoCessor FFP (FPC-FD2 + FPC-ED2), ProtoAir (FPA-XY4), EZ Gateway KNX to BACnet (FS-EZX-KNX-BAC), EZ Gateway M-Bus to Modbus & BACnet (FS-EZX-MBUS-MOD-BAC), EZ Gateway Modbus to BACnet (FS-EZX-MOD-BAC)
Product Description	This software product will provide bi-directional communication between various RTU, DCS, SCADA and PLC using most common protocols and a BACnet system. The FieldServer can perform protocol conversion (as opposed to routing) between the different BACnet Data Link Layer options. This is arranged by way of static mappings.
Protocol Conversions	See MSA Safety's list of protocol drivers to determine available protocol conversions.
BACnet Protocol Version	Version 1 Revision 16

1.1 BACnet Standardized Device Profile (Annex L)

NOTE: The FieldServer is a gateway device.

- [X] BACnet Application Specific Controller (B-ASC)

1.2 BACnet Interoperability Building Blocks Supported (Annex K)

- [X] K.1.1 BIBB - Data Sharing - ReadProperty-A (DS-RP-A)*
- [X] K.1.2 BIBB - Data Sharing - ReadProperty-B (DS-RP-B)
- [X] K.1.3 BIBB - Data Sharing - ReadPropertyMultiple-A (DS-RPM-A) *
- [X] K.1.4 BIBB - Data Sharing - ReadPropertyMultiple-B (DS-RPM-B)
- [X] K.1.7 BIBB - Data Sharing - WriteProperty-A (DS-WP-A)
- [X] K.1.8 BIBB - Data Sharing - WriteProperty-B (DS-WP-B)
- [X] K.1.9 BIBB - Data Sharing – WritePropertyMultiple-A (DS-WPM-A)*
- [X] K.1.10 BIBB - Data Sharing - WritePropertyMultiple-B (DS-WPM-B)
- [X] K.1.11 BIBB - Data Sharing - COV-A (DS-COV-A)*
- [X] K.1.12 BIBB - Data Sharing - COV-B (DS-COV-B)
- [X] K.2.2 BIBB - Alarm and Event-Notification Internal-B (AE-N-I-B)
- [X] K.2.5 BIBB - Alarm and Event-ACK-B(AE-ACK-B)
- [X] K.2.11 BIBB - Alarm and Event-Information-B (AE-INFO-B)
- [X] K.4.2 BIBB - Trending – Viewing and Modifying Trends Internal-B (T-VMT-I-B)
- [X] K.4.5 BIBB - Trending – Automated Trend Retrieval-B (T-ATR-B)
- [X] K.5.1 BIBB - Device Management - Dynamic Device Binding-A (DM-DDB-A)
- [X] K.5.2 BIBB - Device Management - Dynamic Device Binding-B (DM-DDB-B)
- [X] K.5.3 BIBB - Device Management - Dynamic Object Binding-A (DM-DOB-A)*
- [X] K.5.4 BIBB - Device Management - Dynamic Object Binding-B (DM-DOB-B)
- [X] K.5.6 BIBB - Device Management - DeviceCommunicationControl-B (DM-DCC-B)
- [X] K.5.12 BIBB - Device Management - TimeSyncronization-B (DM-TS-B)
- [X] K.5.16 BIBB - Device Management-ReinitializeDevice-B (DM-RD-B)
- [X] K.5.20 BIBB - Device Management-Restart-B (DM-R-B)
- [X] K.5.22 BIBB - Device Management – List Manipulation-B (DM-LM-B)
- [X] K.5.38 BIBB - Network Management-BBMD Configuration-B (NM-BBMDC-B)

* Client functionality not part of B-ASC profile tested by BTL.

1.3 Segmentation Capability

None

1.4 Object Types and Optional Properties Supported

Object Type	Optional Properties Supported
[X] Device Object	Location Description UTC Offset Active COV Subscriptions Database Revision
[X] Analog Input	Reliability Description
[X] Analog Output	Reliability Description Max_Pres_Value Min_Pres Value
[X] Analog Value	Reliability Description
[X] Binary Input	Reliability Description Active_Text Inactive_Text
[X] Binary Output	Reliability Description Active_Text Inactive_Text
[X] Binary Value	Reliability Description Active_Text Inactive_Text
[X] Multi State Input	Reliability Description State_Text
[X] Multi State Output	Reliability Description State_Text
[X] Multi State Value	Reliability Description State_Text
[X] Notification Class Object	
[X] Trend Log	Description Log_Interval
[X] Life Safety Point	Description

Object Type	Optional Writable Properties
[X] Device Object	Object_Name
[X] Analog Input	Object_Name
[X] Analog Output	Object_Name
[X] Analog Value	Object_Name
[X] Binary Input	Object_Name
[X] Binary Output	Object_Name
[X] Binary Value	Object_Name
[X] Multi State Input	Object_Name
[X] Multi State Output	Object_Name
[X] Multi State Value	Object_Name
[X] Notification Class Object	Object_Name
[X] Life Safety Point	Object_Name
[X] Trend Log	Object_Name

1.5 Unsupported Properties and Restrictions

- Does not support BACnet CreateObject
- Does not support BACnet DeleteObject
- Does not support any optional properties
- No additional writeable properties exist
- No proprietary properties exist
- No range restrictions exist
- Client Driver can only read Present Value property

1.6 Data Link Layer Options

- [X] BACnet/IP, (Annex J)
- [X] ANSI/ATA 878.1, 2.5 Mb, ARCNET (Clause 8)
- [X] Point-to-Point, EIA 232 (Clause 10), baud rate up to 57.6 Kbps
- [X] ISO 8802-3, Ethernet (Clause 7)
- [X] MS/TP master (Clause 9), baud rate up to 76.8 Kbps
- [X] MS/TP slave (Clause 9), baud rate up to 76.8 Kbps

1.7 Device Address Binding

Not supported

1.8 Networking Options

[ ]	Router, Clause 6 – List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
[ ]	Annex H, BACnet Tunneling Router over IP
[X]	Annex H.2, Multiple "Virtual" BACnet Devices in a Single Physical Device
[X]	BACnet/IP Broadcast Management Device (BBMD)
[X]	Registrations by Foreign Devices

1.9 Character Sets Supported

Where support for multiple character sets is indicated, this does not imply that they can all be supported simultaneously.

[X]	ISO 10646 (UTF-8) ANSI X3.4
[ ]	ISO 10646 (UCS-2)
[X]	IBM/Microsoft DBCS
[ ]	ISO 10646 (ICS-4)
[X]	ISO 8859-1
[ ]	JIS C

1.10 Non-BACnet Equipment/Networks Supported

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:

- Modbus RTU
- Modbus TCP/IP
- LonWorks
- Metasys N2
- SNMP
- DNP 3.0 serial and Ethernet
- XML
- GE-EGD
- GE-SRTP
- OPC
- Allen Bradley DF1
- Allen Bradley CSP
- Canatal
- Carrier
- Caterpillar MSX
- ControlNet
- DataAire
- DeviceNet
- EST3 ECP
- EST QuickStart
- Fike Cheetah
- Gamewell-FCI
- GE-SNP
- JBus
- Lutron
- McQuay
- Mircom
- Notifier Fire Panels
- Profibus
- Russelectric
- Secutron
- Siemens Fire Safety
- Silent Knight
- SimplexGrinnell
- Spectronics
- Stulz
- TAC I/Net
- Veeder-Root

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