

ECAT-1000 BACnet PICS

BACnet Protocol Implementation Conformance Statement (PICS)

Date: August 18, 2016
Vendor Name: ICC, Inc.
Product Name: ECAT-1000 Multiprotocol EtherCAT Gateway
Product Model Number: ECAT-1000
Applications Software Version: V5.200
Firmware Revision: V5.200
BACnet Protocol Revision: 12
Product Description:

The ECAT-1000 is an EtherCAT to RS-485 multiprotocol gateway. This product supports native BACnet, connecting directly to the MS/TP LAN using baud rates of 9600, 19200, 38400, 57600, 76800, and 115200. The device can be configured as a BACnet Client or as a BACnet Server.

BACnet Standard Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

BACnet Interoperability Building Blocks Supported (Annex K):

- Data Sharing – ReadProperty-A (DS-RP-A)
- Data Sharing – ReadProperty-B (DS-RP-B)
- Data Sharing – ReadPropertyMultiple-B (DS-RPM-B)
- Data Sharing – WriteProperty-A (DS-WP-A)
- Data Sharing – WriteProperty-B (DS-WP-B)
- Data Sharing – WritePropertyMultiple-B (DS-WPM-B)
- Device Management – Dynamic Device Binding-A (DM-DDB-A)
- Device Management – Dynamic Device Binding-B (DM-DDB-B)
- Device Management – Dynamic Object Binding-B (DM-DOB-B)
- Device Management – DeviceCommunicationControl-B (DM-DCC-B)
- Device Management – ReinitializeDevice-B (DM-RD-B)

Segmentation Capability:

- Able to transmit segmented messages Window Size _____
- Able to receive segmented messages Window Size _____

Standard Object Types Supported:

Property	Object Type									
	Device	Binary Input	Binary Output	Binary Value	Analog Input	Analog Output	Analog Value	Multi-state Input	Multi-state Output	Multi-state Value
Object Identifier	R	R	R	R	R	R	R	R	R	R
Object Name	R	R	R	R	R	R	R	R	R	R
Object Type	R	R	R	R	R	R	R	R	R	R
System Status	R									
Vendor Name	R									
Vendor Identifier	R									
Model Name	R									
Firmware Revision	R									
App Software Revision	R									
Protocol Version	R									
Protocol Revision	R									
Services Supported	R									
Object Types Supported	R									
Object List	R									
Max APDU Length	R									
Segmentation Support	R									
APDU Timeout	W (10...65535)									
Number APDU Retries	W (0...10)									
Max Master	W (1...127)									
Max Info Frames	R									
Device Address Binding	R									
Database Revision	R									
Present Value		R	W	W	R	W	W	R	W	W
Status Flags		R	R	R	R	R	R	R	R	R
Event State		R	R	R	R	R	R	R	R	R
Reliability		R	R	R	R	R	R	R	R	R
Out-of-Service		R	R	R	R	R	R	R	R	R
Number of States								R	R	R
Units					R	R	R			
Priority Array			R	R		R	R		R	R
Relinquish Default			R	R		R	R		R	R
Polarity		R	R							
Inactive Text		R	R	R						
Active Text		R	R	R						

R – readable using BACnet services

W – readable and writable using BACnet services

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) _____
- MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 76800, 115200
- MS/TP slave (Clause 9), baud rate(s): _____
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): _____
- Point-To-Point, modem, (Clause 10), baud rate(s): _____
- LonTalk, (Clause 11), medium: _____
- BACnet/ZigBee (ANNEX O)
- Other: _____

Device Address Binding:

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

Networking Options:

- Router, Clause 6 - List all routing configurations
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)
 - Does the BBMD support registrations by Foreign Devices? Yes No
 - Does the BBMD support network address translation? Yes No

Network Security Options:

- Non-secure Device - is capable of operating without BACnet Network Security
- Secure Device - is capable of using BACnet Network Security (NS-SD BIBB)
 - Multiple Application-Specific Keys:
 - Supports encryption (NS-ED BIBB)
 - Key Server (NS-KS BIBB)

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

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

Refer to protocol-specific manuals for other supported protocols.