

BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BI.

# BACnet Testing Laboratories Product Listing

This product has been tested at a qualified BACnet Testing Laboratory and found to comply with all the necessary interoperability requirements in place on the published test date. This listing represents the tested capability of the Listed Products. For information on additional functionality that was not covered in the test process, refer to the manufacturer's PICS statement on the BI website.

#### **Listing Information (BTL-30202)**

Vendor		Listing Status
GFR Gesellschaft für Regelungstechnik und Energieeinsparung mbH Kapellenweg 42 33415 Verl Germany		Listed Product
Test Requirements	BACnet Protocol Revision	Date Tested
Requirements as of November 2014	Revision 14 (135-2012)	August 2016

Product Name	Model Numbers	Software Version
ems2 building controller	ems2.CP14D, ems2.CP04D, ems2.R4D1B	ems2-BACnet 2.02

#### **Device Profiles**

Profile	Model Numbers
BACnet Building Controller (B-BC) BACnet Broadcast Management Device (B-BBMD)	All models

#### **BIBBs Supported**

	ReadProperty-A	DS-RP-A
	ReadProperty-B	DS-RP-B
	ReadPropertyMultiple-A	DS-RPM-A
	ReadPropertyMultiple-B	DS-RPM-B
	WriteProperty-A	DS-WP-A
Data Sharing	WriteProperty-B	DS-WP-B
	WritePropertyMultiple-B	DS-WPM-B
	COV-A	DS-COV-A
	COV-B	DS-COV-B
	COV-Unsubscribed-A	DS-COVU-A
	COV-Unsubscribed-B	DS-COVU-B

Alarm and Event Notification	Notification Internal-B	AE-N-I-B
	Notification External-B	AE-N-E-B
	ACK-B	AE-ACK-B
	Alarm Summary-B	AE-ASUM-B
	Enrollment Summary-B	AE-ESUM-B
	Information-B	AE-INFO-B
Scheduling	Internal-B	SCHED-I-B
Scrieduling	External-B	SCHED-E-B
	Viewing and Modifying Trends Internal-B	T-VMT-I-B
	Viewing and Modifying Trends External-B	T-VMT-E-B
Trending	Automated Trend Retrieval-B	T-ATR-B
	Viewing and Modifying Multiple Values Internal-B	T-VMMV-I-B
	Automated Multiple Value Retrieval-B	T-AMVR-B
	Dynamic Device Binding-A	DM-DDB-A
	Dynamic Device Binding-B	DM-DDB-B
	Dynamic Object Binding-A	DM-DOB-A
	Dynamic Object Binding-B	DM-DOB-B
Device Management	DeviceCommunicationControl-B	DM-DCC-B
	TimeSynchronization-B	DM-TS-B
	UTCTimeSynchronization-B	DM-UTC-B
	ReinitializeDevice-B	DM-RD-B
	Backup and Restore-B	DM-BR-B
	List Manipulation-B	DM-LM-B
	Object Creation and Deletion-B	DM-OCD-B
Network Management	Connection Establishment-A	NM-CE-A

## **Object Type Support**

Accumulator	Analog Input	Analog Output
Analog Value	Binary Input	Binary Output
Binary Value	Calendar	Device
Event Enrollment	File	Loop
Multi-state Input	Multi-state Output	Multi-state Value
Notification Class	Pulse Converter	Schedule
Trend Log	Trend Log Multiple	

## **Data Link Layer Options**

Media	Options
BACnet/IP (Annex J)	BBMD
MS/TP Master	9600, 19200, 38400

## **Networking Options**

Networking Functionality	Media
BBMD	BACnet/IP (Annex J)

## **Character Set Support**

ISO 8859-1 ISO 10646 (UTF-8)