

ANNEX A - PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (NORMATIVE)

(This annex is part of this Standard and is required for its use.)

BACnet Protocol Implementation Conformance Statement

Date: 2015-12-31

Vendor Name: King I Electronics Co., Ltd

Product Name: Fan Coil Controller

Product Model Number: BAC-TH-1312

Application Software Version: 1.0 Firmware Revision: 1.0 BACnet Protocol Revision: 1.12

Product Description:

A programmable thermostat, Models include regular temperature control, fancoil and floor heating. Device also build-in RS485 can easily integrated with most third EMS.

BACnet Standardized 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)
- Other

List all BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-B, DS-RPM-B, DS-WP-B, DM-DDB-B, DM-DOB-B

Segmentation Capability:

- Segmented requests supported Window Size _____
- Segmented responses supported Window Size _____

Standard Object Types Supported:

An object type is supported if it may be present in the device. For each standard Object Type supported provide the following data:

- 1) Whether objects of this type are dynamically creatable using the CreateObject service
- 2) Whether objects of this type are dynamically deletable using the DeleteObject service
- 3) List of the optional properties supported
- 4) List of all properties that are writable where not otherwise required by this standard
- 5) List of proprietary properties and for each its property identifier, datatype, and meaning
- 6) List of any property range restrictions

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)

King I Electronics Co., Ltd.

6F, No. 495, Chung Cheng Road,
Hsin-Tien City 231,
Taipei Hsien, Taiwan, R.O.C.

- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) _____
- MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600
- 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: _____
- 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
- BACnet/IP Broadcast Management Device (BBMD)
Does the BBMD support registrations by Foreign Devices? Yes No

Character Sets Supported:

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

- ANSI X3.4
- IBM™/Microsoft™ DBCS
- ISO 8859-1
- ISO 10646 (UCS-2)
- ISO 10646 (UCS-4)
- JIS C 6226

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

BACnet Interoperability Building Blocks Supported:

BIBB Supported	BACnet Service	Initiate	Execute
DS-RP-B	ReadProperty		x
DS-RPM-B	ReadPropertyMultiple		x
DS-WP-B	WriteProperty		x
DM-DDB-B	Who-Is		x
	I-Am	x	
DM-DOB-B	Who-Has		x
	I-Have	x	

BACnet Objects Supported:

R: Read only, W: Writable

Object-Type	Required properties	Optional properties
Device	W object-identifier	R location
	R object-name	R description
	R object-type	
	R system-status	
	R vendor-name	
	R vendor-identifier	
	R model-name	
	R firmware-revision	
	R application-software-version	
	R protocol-version	
	R protocol-revision	
	R protocol-services-supported	
	R protocol-object-types-supported	
	R object-list	
	R max-apdu-length-accepted	
	R segmentation-supported	
	R apdu-timeout	
R number-of-APDU-retries		
R device-address-binding		
R database-revision		
Analog Value	R object-identifier	R description
	R object-name	
	R object-type	

King I Electronics Co., Ltd.

6F, No. 495, Chung Cheng Road,

Hsin-Tien City 231,

Taipei Hsien, Taiwan, R.O.C.

	W present-value R status-flags R event-state R out-of-service R units	
Analog Input	R object-identifier R object-name R object-type R present-value R status-flags R event-state R out-of-service R units	R description

BACnet Object List:

Object Type	Object Name	Object Identifier
Device	TH-1312-object-identifier (Default: TH-1312-3)	Device 3 (Default)
Analog Input	PV Temperature	Analog Input 0
	PV Humidity	Analog Input 1
	IAQ	Analog Input 2
Analog Value	Power	Analog Value 0
	Fan Mode	Analog Value 1
	Fan Speed	Analog Value 2
	C/F Unit	Analog Value 3
	Control Mode	Analog Value 4
	SP Comfortable	Analog Value 5
	SP Unoccupied	Analog Value 6
	SP Economy	Analog Value 7
	SP Manual	Analog Value 8
	Off/Heat/Cool/Auto/EM_Heat	Analog Value 9
	SP Humidity Low limit	Analog Value 10
SP Humidity High limit	Analog Value 11	

BACnet Analog Value Object Writable Property:

No.	BACnet Object	Property	Data Type	Range	Default value	Units
1	AV0	Present_Value	Real	0:Off 1:On	-	-
2	AV1	Present_Value	Real	0:Auto 1:On	-	-
3	AV2	Present_Value	Real	1:Low 2:Medium 3:High	-	-
4	AV3	Present_Value	Real	0: Celsius 1: Fahrenheit	-	-
5	AV4	Present_Value	Real	0: Comfort Mode 1: Unoccupied 2: Economy 3: Manual	-	
6	AV5	Present_Value	Real	Scale: 0.5°C (1.0°F) Range: 5°C ~ 50°C (41°F ~ 122°F)	-	°C /°F
7	AV6	Present_Value	Real	Scale: 0.5°C (1.0°F) Range: 5°C ~ 50°C (41°F ~ 122°F)	-	°C /°F
8	AV7	Present_Value	Real	Scale: 0.5°C (1.0°F) Range: 5°C ~ 50°C (41°F ~ 122°F)	-	°C /°F
9	AV8	Present_Value	Real	Scale: 0.5°C (1.0°F) Range: 5°C ~ 50°C (41°F ~ 122°F)	-	°C /°F
10	AV9	Present_Value	Real	0: Off 1: Heating 2: Cooling 3: Auto 4: EM Heating	-	-
11	AV10	Present_Value	Real	Scale: 1% Range: 30%~50%	-	%
12	AV11	Present_Value	Real	Scale: 1% Range: 60%~80%	-	%

The Present_Value Property of all Analog Value Object should be an integer number (AV5~AV8 in Fahrenheit mode), the decimal would be truncate.