

## Product Implementation Conformance Statement

**Date : July, 2015**

**Vendor Name : Shina System Co. Ltd**

**BACnet Device Profile : B-ASC**

**BACnet Vendor ID : 578**

**BACnet Protocol Version : 1**

**BACnet Protocol Revision : 12**

Product	Model Number	Version
<b>VAV Control Module series</b>	VCM-100A, VCM-100B, VCM-200A, VCM-200B	2.1

## Product Description

VCM series are Smart VAV controllers, integrated damper motor and airflow sensor. It has price competitiveness and high control accuracy. It can be applied various VAV type, such as VAV, FPU, CAV, depending on the model. You can choose variety communication protocols such as BACnet, Modbus, Cu-Net. In addition, It can be applied to various automatic control fields, when utilizing as smart controller. In this case the built-in air volume sensor, a floating output, AI (3), AO (2), BI (4), BO (3) rich auxiliary input/output provides a diversity for application

## BACnet Standardized Device Profile (Annex L)

- BACnet Operator Workstation (B-OWS)
- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Display (B-OD)
- 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)

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

BIBB	Name	Supported
<b>DS-RP-B</b>	Data Sharing – ReadProperty-B	X
<b>DS-RPM-B</b>	Data Sharing – ReadPropertyMultiple-B	X
<b>DS-WP-B</b>	Data Sharing – WriteProperty-B	X
<b>DS-WPM-B</b>	Data Sharing – WritePropertyMultiple-B	X
<b>DM-DDB-B</b>	Device Management – Dynamic Device Binding-B	X
<b>DM-DCC-B</b>	Device Management – Device Communication Control-B	X
<b>DM-DOB-B</b>	Device Management – Dynamic Object Binding-B	X
<b>DM-RD-B</b>	Device Management – Reinitialize Device-B	X

### Segmentation Capability:

- Able to transmit segmented messages Window Size : 32
- Able to receive segmented messages Window Size : 32

### Standard Object Types Supported:

Object Type	Supported	Creatable	Deletable
Analog Input	X		
Analog Output	X		
Analog Value	X		
Binary Input	X		
Binary Output	X		
Binary Value	X		
Device	X		

Properties that are Supported(S), Writable(W), Optional(O) are indicated.

Property (Analog Input)	S	W	O
Object_Identifier	X		
Object_Name	X		
Object_Type	X		
Present_Value	X	X	
Description	X	X	X
Device_Type	X		X
Status_Flags	X		
Event_State	X		
Reliability	X		X
Out_Of_Service	X	X	
Units	X	X	
Min_Pres_Value	X	X	X
Max_Pres_Value	X	X	X
COV_Increment	X	X	X

Property (Analog Output)	S	W	O
Object_Identifier	X		
Object_Name	X		
Object_Type	X		
Present_Value	X	X	
Description	X	X	X
Device_Type	X		X
Status_Flags	X		
Event_State	X		
Reliability	X		X
Out_Of_Service	X	X	
Units	X	X	
Min_Pres_Value	X		X
Max_Pres_Value	X		X
Priority_Array	X		
Relinquish_Default	X	X	
COV_Increment	X	X	X

Property (Analog Value)	S	W	O
Object_Identifier	X		
Object_Name	X		
Object_Type	X		
Present_Value	X	X	
Description	X	X	X
Status_Flags	X		
Event_State	X		
Reliability	X		X
Out_Of_Service	X	X	
Units	X	X	
Priority_Array	X		
Relinquish_Default	X	X	
COV_Increment	X	X	X

Property (Binary Input)	S	W	O
Object_Identifier	X		
Object_Name	X		
Object_Type	X		
Present_Value	X	X	
Description	X	X	X
Status_Flags	X		
Event_State	X		
Reliability	X		X
Out_Of_Service	X	X	
Polarity	X	X	
Inactive_Text	X	X	X
Active_Text	X	X	X

Property (Binary Output)	S	W	O
Object_Identifier	X		
Object_Name	X		
Object_Type	X		
Present_Value	X	X	
Description	X	X	X
Status_Flags	X		
Event_State	X		
Reliability	X		X
Out_Of_Service	X	X	
Polarity	X	X	
Inactive_Text	X	X	X
Active_Text	X	X	X
Priority_Array	X		
Relinquish_Default	X	X	

Property (Binary Value)	S	W	O
Object_Identifier	X		
Object_Name	X		
Object_Type	X		
Present_Value	X	X	
Description	X	X	X
Status_Flags	X		
Event_State	X		
Reliability	X		X
Out_Of_Service	X	X	
Inactive_Text	X	X	X
Active_Text	X	X	X
Priority_Array	X		X
Relinquish_Default	X	X	X

Property (Device)	S	W	O
Object_Identifier	X	X	
Object_Name	X		
Object_Type	X		
System_Status	X		
Vendor_Name	X		
Vendor_Identifier	X		
Model_Name	X		
Firmware_Revision	X		
Application_Software_Version	X		
Location	X		X
Description	X		X
Protocol_Version	X		
Protocol_Revision	X		
Protocol_Services_Supported	X		
Protocol_Object_Types_Supported	X		
Object_List	X		
Max_APDU_Length_Accepted	X		
Segmentation_Supported	X		
Max_Segments_Accepted	X		
APDU_Segment_Timeout	X		
APDU_Timeout	X		
Number_Of_APDU_Retries	X		
Max_Master	X	X	
Max_Info_Frames	X	X	
Device_Address_Binding	X		
Database_Revision	X		

### Range Restrictions

Object-Type	Property	Range Restriction
Analog Output	Min_Pres_Value	Fixed to 0.0
Analog Output	Max_Pres_Value	Fixed to 100.0
Analog Input, Binary Input,	Present Value	Writable only when Out_Of_Service is True

## 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, EIA-485 ARCNET (Clause 8), baud rate(s) \_\_\_\_\_
- MS/TP master (Clause 9), baud rate(s): 9600, 38400, 76800
- 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 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

Does the BBMD support network address translation?  Yes  No

## Character Sets Supported:

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

- ISO 10646 (UTF-8)  ANSI X3.4  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:**

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## 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)