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BACnet RIB®

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Protocol Implementation Conformance Statement

Vendor Name:	**Functional Devices, Inc.**
Product Name:	**BACnet RIB**
Product Model Number:	**RIBTW24B-BCAO**
Applications Software Version:	**1.5**
Firmware Revision:	**2.04**
BACnet Protocol Revision:	**12**

1. Product Description

The BACnet RIB provides a software-implemented network interface between BACnet client devices and RIB control and monitoring points.

2. BACnet Standardized Device Profile (Annex L)

The BACdoor OEM Client-Server supports the B-ASC profile.

3. BACnet Interoperability Building Blocks Supported (Annex K)

DS-RP-B, DS-RPM-B, DS-WP-B, DS-WPM-B, DM-DDB-B, DM-DOB-B, DM-DCC-B, DB-RD-B

4. Segmentation Capability

Segmentation is not supported.

5. Standard Object Types (See Specification for product to see which are supported on the product)

No dynamic Creation or Deletion supported
No proprietary object types supported

Standard Object Types Supported:

- **Analog Input**
- **Analog Output**
- **Binary Input**
- **Binary Output**
- **Device**

Optional Properties Supported:

- **Analog Input**
  - Description
  - Reliability
  - Min-Pres-Value

Max-Pres-Value
Device-Type

- **Analog Output**
  Description
  Reliability
  Min-Pres-Value
  Max-Pres-Value
  Device-Type
- **Binary Input**
  Description
  Reliability
  Inactive-Text
  Active-Text
- **Binary Output**
  Description
  Reliability
  Inactive-Text
  Active-Text
  Minimum-On-Time
  Minimum-Off-Time
- **Device**
  Description
  Max-Master
  Max-Info-Frames

Writable Properties:

- **Analog Input**
  Object-Name (32 characters max)
  Description (64 characters max)
  Units
  Device-Type
  Min-Pres-Value
  Max-Pres-Value
- **Analog Output**
  Object-Name (32 characters max)
  Description (64 characters max)
  Units
  Device-Type
  Present-Value
  Relinquish-Default
- **Binary Input**
  Object-Name (32 characters max)
  Description (64 characters max)
  Inactive-Text (32 characters max)
  Active-Text (32 characters max)
  Polarity
- **Binary Output**
  Object-Name (32 characters max)
  Description (64 characters max)
  Inactive-Text (32 characters max)
  Active-Text (32 characters max)
  Polarity
  Present-Value
  Relinquish-Default

Minimum-On-Time
Minimum-Off-Time

- **Device**

  Object-Identifier
  Description (64 characters max)
  APDU-Timeout
  Number-Of-APDU-Retries
  Max-Master
  Object-Name

Object Details

DEx	Object_Identifier	default to DE277000	W
	Object_Name	Up to 32 characters	W
	Object_Type	DEVICE	R
	System_Status	OPERATIONAL or NON_OPERATIONAL	R
	Vendor_Name	“Functional Devices, Inc”	R
	Vendor_Identifier	277	R
	Model_Name	“RIBTW24B-BCAO” (or similar)	R
	Firmware_Revision	“2.04” (or similar)	R
	Application_Software_Version	“1.3” (or similar)	R
	Description	Up to 64 characters	W
	Protocol_Version	1	R
	Protocol_Revision	12	R
	Protocol_Services_Supported	{readProperty,readPropertyMultiple,writeProperty,writePropertyMultiple deviceCommunicationControl,who-Has, who-Is, reinitializeDevice }	R
	Protocol_Object_Types_Supported	{AnalogInput, AnalogOutput, BinaryInput, BinaryOutput, Device }	R
	Object_List	DEx, AI1, AO1, BI1, BO1	R
	Max_APDU_Length_Accepted	480	R
	Segmentation_Supported	NONE	R
	APDU_Timeout	3000 default	W
	Number_Of_APDU_Retries	1 default	W
	Max_Master	127 default	W
	Max_Info_Frames	1	R
	Device_Address_Binding	always empty	R
	Database_Revision	1	R

AI1	Object_Identifier	AI1	R
	Object_Name	Up to 32 characters	W
	Object_Type	Analog_Input	R
	Present_Value	floating point	R
	Description	Up to 64 characters	W
	Device_Type	“0-5,0-10Vdc,10k T2 T3 Thermistor”	W
	Status_Flags	Always { 0,0,0,0 }	R
	Event_State	Always NORMAL	R
	Reliability	Always NO_FAULT_DETECTED	R
	Out_Of_Service	Always FALSE	R
	Units	any BACnet unit	W
	Min_Pres_Value	REAL	W
	Max_Pres_Value	REAL	W
	Resolution	REAL	R

AO1	Object_Identifier	A01	R
	Object_Name	Up to 32 characters	W
	Object_Type	Analog_Output	R
	Present_Value	REAL	W
	Description	Up to 64 characters	W
	Device_Type	Up to 32 Characters	W
	Status_Flags	Always { 0,0,0,0 }	R
	Event_State	Always NORMAL	R
	Reliability	Always NO_FAULT_DETECTED	R
	Out_Of_Service	Always FALSE	R
	Units	Percent	W
	Min_Pres_Value	REAL 0	R
	Max_Pres_Value	REAL 100	R
	Resolution	REAL	R
	Priority_Array	16 Slots (NULL, Real)	R
	Relinquish_Default	Real	W

BI1	Object_Identifier	BI1	R
	Object_Name	Up to 32 characters	W
	Object_Type	Binary_Input	R
	Present_Value	0 or 1	R
	Description	Up to 64 characters	W
	Status_Flags	Always { 0,0,0,0 }	R
	Event_State	Always NORMAL	R
	Reliability	Always NO_FAULT_DETECTED	R
	Out_Of_Service	Always FALSE	R
	Polarity	NORMAL or REVERSE	W
	Inactive_Text	Up to 32 characters	W
	Active_Text	Up to 32 characters	W

BO1	Object_Identifier	BO1	R
	Object_Name	Up to 32 characters	W
	Object_Type	Binary_Output	R
	Present_Value	0 or 1	W
	Description	Up to 64 characters	W
	Status_Flags	{ 0,0,0,0 } Normal or { 0,0,1,0 } Overridden	R
	Event_State	Always NORMAL	R
	Reliability	Always NO_FAULT_DETECTED	R
	Out_Of_Service	Always FALSE	R
	Polarity	NORMAL or REVERSE	W
	Inactive_Text	Up to 32 characters	W
	Active_Text	Up to 32 characters	W
	Minimum_Off_Time	0-65535 seconds	W
	Minimum_On_Time	0-65535 seconds	W
	Priority_Array	16 slots (0, 1, NULL)	R
	Relinquish_Default	0 or 1	W

6. Data Link Layer Options

☐ BACnet/IP, (Annex J)
☐ ISO 8802-3, Ethernet (Clause 7)
☐ ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☐ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), configurable baud rate to 156K
☑ MS/TP master (Clause 9): 9600, 19200, 38400, 57600, 76800, 115200 baud
☐ PTP (Clause 10)

7. Device Address Binding

Static binding is not supported.

8. Networking Options

The RIB is not a router.
Annex H, BACnet Tunneling Router over IP is not supported
BACnet/IP Broadcast Management Device (BBMD) is not supported

9. Character Sets Supported

☐ IBM/Microsoft DBCS ☐ JIS C 6226 ☐ ISO 10646 (UCS4) ☐ ISO 10646 (UCS2)
☐ISO 8859-1 ☑ ISO 10646 (UTF-8)

10. Network Security Options

The RIB is a non-secure Device.