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BACnet RIB

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Protocol Implementation Conformance Statement

Vendor Name:	**Functional Devices, Inc.**
Product Name:	**BACnet RIB with 4 Binary Inputs/Outputs**
Product Model Number:	**RIBMW24B-44-BC**
Applications Software Version:	**v1.03**
Firmware Revision:	**v1.03R2**
BACnet Protocol Revision:	**4**

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

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:

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

Optional Properties Supported:

- **Binary Input**
  - Inactive_Text
  - Active_Text
- **Binary Output**
  - Inactive_Text
  - Active_Text
  - Minimum_On_Time

Minimum_Off_Time
Status_Flags

- **Device**
  Description
  Max_Master
  Max_Info_Frames

Writable Properties:

- **Binary Input**
  Object_Name (4 characters max)
  Inactive_Text (4 characters max)
  Active_Text (4 characters max)
  Polarity
- **Binary Output**
  Object_Name (4 characters max)
  Inactive_Text (4 characters max)
  Active_Text (4 characters max)
  Polarity
  Present_Value
  Relinquish_Default

- **Device**
  Object_Identifier
  Description (32 characters max)
  APDU_Timeout
  Number_Of_APDU_Retries
  Max_Master

Object Details

DEVx	Object_Identifier	default to DEV277000	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	“RIBMW24B-44BC” (or similar)	R
	Application_Software_Version	“1.02” (or similar)	R
	Firmware_Revision	“1.03R2” (or similar)	R
	Description	Up to 32 characters	W
	Protocol_Version	1	R
	Protocol_Revision	4	R
	Protocol_Services_Supported	{readProperty,writeProperty,deviceCommunicationControl, who-Has, who-Is }	R
	Protocol_Object_Types_Supported	{ Binary_Input, Binary_Output, Device }	R
	Object_List	DEV277xxx, BI1, BI2, BI3, BI4, BO1, BO2, BO3, BO4	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	W
	Device_Address_Binding	always empty	R
	Database_Revision		W

BI1	Object_Identifier	BI1	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Input	R
	Present_Value	0 or 1	R
	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 4 characters (OFF)	W
	Active_Text	Up to 4 characters (ON)	W

BI2	Object_Identifier	BI2	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Input	R
	Present_Value	0 or 1	R
	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 4 characters (OFF)	W
	Active_Text	Up to 4 characters (ON)	W

BI3	Object_Identifier	BI3	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Input	R
	Present_Value	0 or 1	R
	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 4 characters (OFF)	W
	Active_Text	Up to 4 characters (ON)	W

BI4	Object_Identifier	BI4	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Input	R
	Present_Value	0 or 1	R
	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 4 characters (OFF)	W
	Active_Text	Up to 4 characters (ON)	W

BO1	Object_Identifier	BO1	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Output	R
	Present_Value	0 or 1	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 4 characters	W
	Active_Text	Up to 4 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

BO2	Object_Identifier	BO2	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Output	R
	Present_Value	0 or 1	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 4 characters	W
	Active_Text	Up to 4 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

BO3	Object_Identifier	BO3	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Output	R
	Present_Value	0 or 1	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 4 characters	W
	Active_Text	Up to 4 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

BO4	Object_Identifier	BO4	R
	Object_Name	Up to 4 characters	W
	Object_Type	Binary_Output	R
	Present_Value	0 or 1	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 4 characters	W
	Active_Text	Up to 4 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

☑ANSI X3.4 ☐ IBM/Microsoft DBCS ☐ JIS C 6226 ☐ ISO 10646 (UCS4) ☐ ISO 10646 (UCS2)
☐ISO 8859-1