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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: **RIBxxxxx-BCAI**  
Applications Software Version: **v1.1**  
Firmware Revision: **v2.04**  
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**
- **Binary Input**
- **Binary Output**
- **Device**

Optional Properties Supported:

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

- **Binary Input**
  - Device-Type
  - 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 (32 characters max)
  - Units
  - Device-Type
  - Min-Pres-Value
  - Max-Pres-Value
- **Binary Input**
  - Object-Name (32 characters max)
  - Description (32 characters max)
  - Inactive-Text (32 characters max)
  - Active-Text (32 characters max)
  - Polarity
- **Binary Output**
  - Object-Name (32 characters max)
  - Description (32 characters max)
  - Inactive-Text (32 characters max)
  - Active-Text (32 characters max)
  - Polarity
  - Present-Value
  - Relinquish-Default
- **Device**
  - Object-Identifier
  - Description (32 characters max)
  - APDU-Timeout
  - Number-Of-APDU-Retries
  - Max-Master

## 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	"RIBMNW24B-BCAI" (or similar)	R
	Firmware_Revision	"2.04" (or similar)	R
	Application_Software_Version	"1.1" (or similar)	R
	Description	Up to 32 characters	W
	Protocol_Version	1	R
	Protocol_Revision	12	R
	Protocol_Services_Supported	{readProperty,writeProperty,deviceCommunicationControl, who-Has,who-Is, reinitDevice }	R
	Protocol_Object_Types_Supported	{ AnalogInput, BinaryInput, BinaryOutput, Device, }	R
	Object_List	DEx, AI1, BI1, BI2, 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	W
	Device_Address_Binding	always empty	R
	Database_Revision	1	W

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 32 characters	W
	Device_Type	"0-5Vdc", "0-10Vdc", or "10K T2 or 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

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

BI2	Object_Identifier	BI2	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 32 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, 76800 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

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

## 10. Network Security Options

The RIB is a non-secure device