



## CQ24A-BAC

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**Protocol Implementation Conformance Statement – PICS**

<b>General information</b>	Date	28.11.2018
	Vendor Name	BELIMO Automation AG
	Vendor ID	423
	Product Name	CQ Zone Rotary Actuator
	Product Model Number	CQ24A-BAC
	Applications Software Version	01.05.0001
	Firmware Revision	09.00.0000
	BACnet Protocol Revision	12
	Product Description	CQ Zone Rotary Actuator
	BACnet Standard Device Profile	BACnet Application Specific Controller (B-ASC)
	Segmentation capability	No
	Data Link Layer Options	MS/TP master
	Device Address Binding	No static device binding supported
	Networking Options	None
	Character Sets Supported	ISO 10646 (UTF-8)
	Gateway Options	None
	Network Security Options	Non-secure device
<b>BACnet Interoperability Building Blocks supported BIBBs</b>	Data sharing – ReadProperty-B (DS-RP-B)	
	Data sharing – ReadPropertyMultiple-B (DS-RPM-B)	
	Data sharing – WriteProperty-B (DS-WP-B)	
	Data sharing – WritePropertyMultiple-B (DS-WPM-B)	
	Data sharing – COV-B (DS-COV-B)	
	Device management – DynamicDeviceBinding-B (DM-DDB-B)	
	Device management – DynamicObjectBinding-B (DM-DOB-B)	
Device management – DeviceCommunicationControl-B (DM-DCC-B)		
<b>BACnet MS/TP</b>	Baud rates	9'600, 19'200, 38'400, 76'800 (Default: 38'400)
	Address	0...127 (Default: 1)
	Number of nodes	Max 32 (without repeater), 1 full busload
<b>Parameterisation</b>	Tool	Belimo Assistant App



All writeable objects which are persistent are **not** supposed to be written on a regular base.

**Protocol Implementation Conformance Statement - PICS**
**Standard Object Types Supported**

Objekt type	Optional properties	Writeable properties
Device	Description Location Active COV Subscriptions Max Master Max Info Frames Profile Name	Object Identifier Object Name Location Description APDU Timeout (1'000...60'000) Number of APDU Retries (0...10) Max Master (1...127) Max Info Frames (1...255)
Analog Input [AI]	Description COV Increment	COV Increment
Analog Output [AO]	Description COV Increment	Present Value COV Increment Relinquish Default
Analog Value [AV]	Description COV Increment	Present Value COV Increment
Binary Input [BI]	Description Active text Inactive Text	
Multi-state Input [MI]	Description State Text	
Multi-state Output [MO]	Description State Text	Present Value
Multi-state Value [MV]	Description State Text	Present Value

The device does not support the services CreateObject and DeleteObject.

The specified maximum length of writable strings is based on single-byte characters.

- Object name: 32 char
- Location: 64 char
- Description: 64 char

**Service processing**

The device supports the DeviceCommunicationControl services. No password is required. A maximum of 6 active COV subscriptions with a lifetime of 1...28'800 sec. (8 hours) are supported.

## BACnet Object Description

Object Name	Object Type [Instance]	Description Comment <i>Status_Flags</i>	Values	COV Increment	Access
Device	Device [Inst.Nr]		0...4'194'302 <i>Default: 1</i>	–	W
RelPos	AI[1]	Relative Position in %	0...100	0.1...100 <i>Default: 1</i>	R
AbsPos	AI[2]	Absolute Position in degree	0...max angle	0.1...90 <i>Default: 1</i>	R
SpRel	AO[1]	Relative Setpoint in % Setpoint for actuator between 0 and Max AV[98]	0...100 <i>Default: 0</i>	0.1...100 <i>Default: 1</i>	C
Max	AV[98]	Max Setpoint in % Max has to be $\geq 30\%$	30...100 <i>Default: 100</i>	0.1...100 <i>Default: 1</i>	W
Bus Watchdog	AV[130]	Timeout for Bus Watchdog in s 0 = watchdog deactivated If the Present_Value is not ZERO, the implementation tracks write procedures to Present_Value of AO[1] and MO[1] If the Present_Value of AO[1] or MO[1] is written, the timer is reset. Upon timeout the Priority_Array of the AO[1] is cleared and the Relinquish_Default becomes valid Recommended timeout value with activated watchdog is 120 s.	0...3'600 <i>Default: 0</i>	0.1...1'000 <i>Default: 1</i>	W

## BACnet Object Description

Object Name	Object Type [Instance]	Description Comment <i>Status_Flags</i>	Values	Access
SummaryStatus	BI[101]	Summary Status Summary of all Status (MI[110])	Inactive_Text: OK Active_Text: Not OK	R
InternalActivity	MI[100]	Internal Activity Adaption: Adaption is running Synchronization: Synchronization is running	1: None 2: - 3: Adaption 4: Synchronization	R
StatusDevice	MI[110]	Status Device Indicates general status about the device Bus Watchdog triggered: Timeout for Bus Watchdog expired	1: OK 2: Bus Watchdog triggered	R
Override	MO[1]	Override Control Overrides the setpoint (SpRel AO[1]) with defined values	1: None 2: Open 3: Close 4: - 5: - 6: Max <i>Default: None(1)</i>	C
Command	MV[120]	Initiate Function Initiation of actuator functions for service and test. After command is sent, value returns to None(1).	1: None 2: Adaption 3: - 4: Synchronization <i>Default: None(1)</i>	W

Access: R = Read, W = Write, C = Commandable with priority array