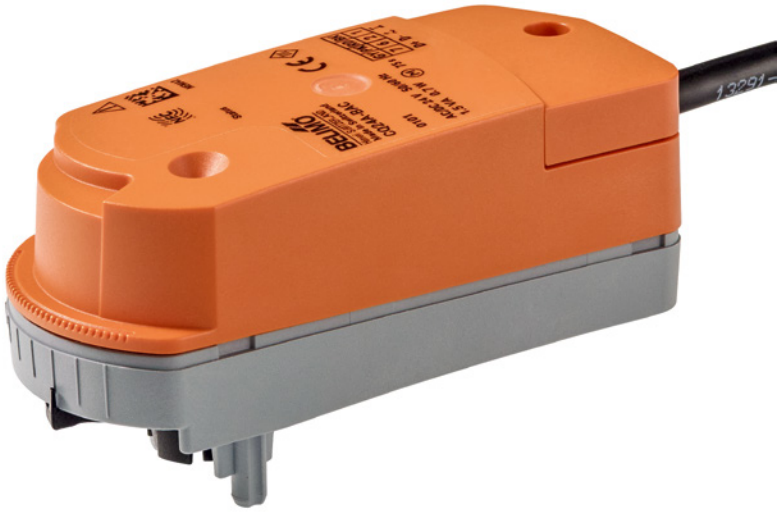

BACnet Interface Description

Zone Valve Actuator
C..24A-BAC / V1.07

Edition 2026-07

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BELIMO

PICS
Protocol Implementation Conformance Statement

General information

Date	01.07.2026
Vendor Name	BELIMO Automation AG
Vendor ID	423
Product Name	CQ Zone Rotary Actuator
Product Model Number	CQ24A-BAC CV24A-BAC
Application Software Version	CQ24A-BAC V1.0
Firmware Revision	14.10.0002
BACnet Protocol Revision	14
Product Description	Zone rotary actuator Short stroke valve actuator
BACnet Standard Device Profile	BACnet Application Specific Controller (B-ASC)
Segment 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

BACnet Interoperability Building Blocks supported (BIBBs)

Data sharing — ReadProperty-B (DS-RP-B)
Data sharing — ReadPropertyMultiple-B (DS-RPM-B)
Data sharing — WriteProperty-B (DS-WP-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)

BACnet MS/TP

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 bus load
Terminating Resistor	External 120 Ω

Configuration

Tool	Belimo Assistant 2



All writeable objects with instance number ≥90 which are persistent are **not** supposed to be written on a regular basis. Designated data points are highlighted in colour in the document.

Standard object types supported

Object 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 Manager (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 writeable 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 s (max. 8 hours) are supported.

Object descriptions

Control and general settings

These objects can be used to control and configure the fundamental functionalities and read the corresponding feedback values of the device.

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
Device	Device [Inst.No]	BACnet internetwork-wide unique number for device identification	0...4'194'302 Default: 1	–	W
SpRel	AO[1]	**Setpoint relative in %** Setpoint for actuator between 0 and Max AV[98]	0...100 Default: 0	0.01...100 Default: 1	C
RelPos	AI[1]	**Relative position in %**	0...100	0.01...100 Default: 1	R
AbsPos	AI[2]	**Absolute Position in degree** Overridden = true if the gear train is disengaged	0...max angle	0.1...90 Default: 1	R
Max	AV[98]	**Maximum limit in %** Max has to be ≥ 30%	30...100 Default: 100	0.01...100 Default: 1	W
Override	MO[1]	**Override Control** Overrides the setpoint (SpRel AO[1]) with defined values	1: None 2: Open 3: Close 4: – 5: – 6: Max 7: Stop Default: 1	–	C
Command	MV[120]	**Initiate function** Initiation of actuator functions for service and test. After command is sent, value returns to 1: None.	1: None 2: Adaption 3: – 4: Synchronization Default: 1	–	W
BusWatchdog	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 Reliquish_Default becomes valid Recomended timeout value with activated watchdog is 120 s.	0...3'600 Default: 0	0.1...1'000 Default: 1	W

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

Health state

These objects allow to determine malfunctions, service information and error states of the device.

Object name	**Object type** [Instance]	**Description** Comment, Status_Flags	**Values**	**COV increment**	**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

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

All inclusive.

Belimo is the global market leader in the development, production, and sales of field devices for the energy-efficient control of heating, ventilation and air-conditioning systems. The focus of our core business is on damper actuators, control valves, sensors and meters.

Always focusing on customer value, we deliver more than only products. We offer you the complete product range for the regulation and control of HVAC systems from a single source. At the same time, we rely on tested Swiss quality with a five-year warranty. Our worldwide representatives in over 80 countries guarantee short delivery times and comprehensive support through the entire product life. Belimo does indeed include everything.

The “small” Belimo devices have a big impact on comfort, energy efficiency, safety, installation and maintenance.

In short: Small devices, big impact.

- 5-year warranty
- On site around the globe
- Complete product range
- Tested quality
- Short delivery times
- Comprehensive support



EN – 2026-07 – Subject to technical modifications

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