



BACnet Interface Description



Energy Valve DN 15...50 (Version 4)

Edition 2025-01 / V4.2.1



Contents

PICS Protocol Implementation Conformance Statement

General notes	
Power-on behaviour	_
BACnet Interoperability Building Blocks supported (BIBBs)	3
BACnet MS/TP	_
BACnet IP	_
Configuration	_
Standard object types supported	4

Object descriptions

Control and general settings	5-6
Flow	7-8
Power	9
Energy	10
Differential pressure	11
Temperature	10
Conversion of sensor signals	12
Delta T manager	13
Health state	14



PICS Protocol Implementation Conformance Statement

General information	Date Vendor Name Vendor ID Product Name Product Model Number Application Software Version Firmware Revision BACnet Protocol Revision Product Description	05.07.2024 BELIMO Automation AG 423 Energy Valve EV.R2+(K)BAC (Version 4, DN 1550) EV.R2+MID (Version 4, DN 1550) EV.R3+BAC (Version 4, DN 1550) EV 4.2.1 14.10.0002 1.14 Electronic pressure-independent characterised control valve with
	BACnet Standard Device Profile Segment Capability Data Link Layer Options	BACnet Application Specific Controller (B-ASC) No MS/TP Manager BACnet IP (Annex J)
	Device Address Binding Networking Options Character Sets Supported Gateway Options Network Security Options Conformance	BACnet IP, (Annex J), Foreign Device No static device binding supported None ISO 10646 (UTF-8) None Non-secure device Listed by BTL
Power-on behavoiur	The initialization of the data after po All values remain 0 during power-on.	wer fail takes up to 190 seconds.
BACnet Interoperability Building Blocks supported (BIBBs)	Data sharing — ReadProperty-B (DS- Data sharing — ReadPropertyMultipl Data sharing — WriteProperty-B (DS- Data sharing — COV-B (DS-COV-B) Device management — DynamicDev Device management — DynamicObje Device management — DeviceComm	RP-B) le-B (DS-RPM-B) -WP-B) riceBinding-B (DM-DDB-B) ectBinding-B (DM-DOB-B) nunicationControl-B (DM-DCC-B)
BACnet MS/TP	Baud Rates Address Number of Nodes Terminating Resistor	9'600, 19'200, 38'400, 76'800, 115'200 (Default: 38'400) 0127 (Default: 1) Max. 32 (without repeater), 1 full bus load 120 Ω
BACnet IP	Port	open (Default: 47'808)
Configuration	Tool	Belimo Assistant 2 or web browser



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 Manager Max Info Frames Profile Name	Object Identifier Object Name Location Description APDU Timeout (1'00060'000) Number of APDU Retries (010) Max Manager (1127) Max Info Frames (1255)
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	-
Binary Value [BV]	Description Active Text State Text	Present Value
Multi-state Input [MI]	Description State Text	_
Multi-state Output [MO]	Description State Text	Present Value Relinquish Default
Multi-state Value [MV]	Description State Text	Present Value
Positive Integer Value [PIV]	Description	_

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 Energy Valve.

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. BACnet MS/TP: This value plus the parameterized MAC address (0127) define the Device-ID.	04'194'302 Default: 1	-	W
SpRel	AO[1]	Setpoint relative in % The setpoint is related to either the position, the volumetric flow (of V'_{min} , V'_{max}) or the power (of P'_{max}). It is scaled between Min and Max limits. The setpoint is active, if the setpoint is controlled by MV[122]: Setpoint Source = 2: Bus. See also AV[90], AV[94], AV[100], AV[110].	0100 Default: 0	0.01100 Default: 1	C
		Overridden = true, if MV[122]: SpSource = 1: Analog or if forced control (bus, tool and/or analog forced control) is active			
SpAnalog	AI[6]	Setpoint analog in % Shows the setpoint in % if actuator is controlled by MV[122]: Setpoint Source = 1: Analog. If MV[122]: Setpoint Source = 2: Bus then Out_Of_Service is TRUE	0100	0.01100 Default: 1	R
		Overridden = true, if MV[122]: SpSource = 2: Bus or if forced control (bus, tool and/or analog forced control) is active			
RelPos	AI[1]	Relative position in % Overridden = true, if the gear train is disengaged	0100	0.01100 Default: 1	R
AbsPos	AV[2]	Absolute position in ° Overridden = true, if the gear train is disengaged	096	0.0196 Default: 1	R
SpSource	MV[122]	Setpoint source 1: Setpoint from analog signal 0.510 V on wire 3 2: Setpoint via BACnet AO[1]: SpRel	1: Analog 2: Bus Default: 1	_	W
ControlMode	MV[100]	Control mode This value defines the interpretation of the setpoint. A reset will be performed, if the state of this object is changed.	1: Position control 2: Flow control 3: Power control 4: Differential pressure control Default: 2	-	W
Override	MV[1]	Override control Overrides setpoint with defined values	1: None 7: Nominal 2: Open Valve 8: - 3: Close Valve 9: - 4: Minimum 10: - 5: - 11: Motor stop 6: Maximum Default: 1	-	С
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: – 3: Synchronization Default: 1	_	W

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
BusFailAction	MV[130]	Bus fail action In the event of a breakdown in communication, the actuator enables the bus watchdog fail action. The bus monitoring controls the BACnet communication. If neither A0[1]: Setpoint Relative nor MV[1]: Override Control is renewed before the Timeout for AV[130]: Bus Watchdog, the actuator controls to the Bus Fail Position. Triggered bus monitoring is indicated in AV[140]: ErrorState.	1: None 2: Open 3: Close 4: Max 5: Min 6: – 7: Stop Default: 1	_	W
BusWatchdog	AV[130]	Timeout for bus watchdog in s If no write request is received within the timeout, the device will execute the action defined in MV[130]: Bus fail action.	53'600 Default: 120	13'595 Default: 1	W
BusTermination	BV[99]	Bus termination Indicates if bus termination (120 Ω) is enabled. Bus termination can be set with Belimo Assistant 2 or web browser.	0: Disabled 1: Enabled Default: 0	_	R
StatusActuator	MV[106]	Status actuator 2: Mechanical overload due to blocked valve, etc. 3: Gear train disengaged button is pressed 4: Communication with actuator not possible	1: OK 2: Actuator cannot move 3: Gear train disengaged 4: No communication to actuator	_	R

Flow

These objects can be used to configure and read values related to Flow control. For setpoint see AO[1]: Setpoint Relative in section "Control and general settings".

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
SpAbsFlow_ UnitSel	AV[17]	Setpoint absolute volumetric flow in selected unit → Unit can be selected by MV[123]: UnitSelFlow Overridden = true, if forced control (bus, tool and/or analog forced control) is active	00.006 m ³ /s 022.700 m ³ /h 06.305 l/s 0378.333 l/min 022'700.000 l/h 099.945 gpm 013.360 cfm	22'700 Default: 1	R
RelFlow	AV[10]	Relative volumetric flow in % Related to V' _{max} AV[94], AV[97]: Maximum Volumetric Flow Limit	0150	0.01150 Default: 1	R
AbsFlow_ UnitSel	 AV[19]	Absolute volumetric flow in selected unit → Unit can be selected by MV[123]: UnitSelFlow Sensor reading up to 2,5* V' _{nom} possible. Make sure to use the device within the specified parameters (see datasheet).	00.015 m ³ /s 056.750 m ³ /h 015.762 l/s 0945.832 l/min 056'750.000 l/h 0249.862 gpm 033.400 cfm	056'750 Default: 1	R
UnitSelFlow	MV[123]	Unit selection volumetric flow The selected unit is valid for AV[17], AV[19], AV[93], AV[97], AV[100], AV[127]	1: m³/s 5: l/h 2: m³/h 6: gpm 3: l/s 7: cfm 4: l/min Default: 5	_	W
Volume_UnitSel	AV[52]	Accumulated volume in selected unit → Unit can be selected by MV[126]: Unit selection volume See also MV[200]: Select meter registers	042'000'000 m ³ 042'000'000'000 l 011'095'226'199 gal 01483'216'002.3 cf	142'000'000'000 Default: 1	R
Glycol Concentration	AV[60]	Glycol concentration in % Measured value or override value in settings	060	0.0160 Default: 1	R
Vmin	AV[90]	Minimum volumetric flow limit in % (V'min)	0V' _{max}	0.01100 Default: 1	W
Vmin_UnitSel	 AV[93]	Minimum volumetric flow limit in selected unit (V'min) → Unit can be selected by MV[123]: UnitSelFlow	00.006 m ³ /s 022.700 m ³ /h 06.305 l/s 0378.333 l/min 022'700.000 l/h 099.945 gpm 013.360 cfm	0.001 22'700 Default: 1	W
Vmax	 AV[94]	Maximum volumetric flow limit in % (V' _{max}) Maximum volumetric flow limit relative to V' _{nom} . "Nominal Volumetric Flow" AV[100] considered when MV[100]: Control Mode = 2: Flow Control or = 3: Power Control. Values below 25% will be adjusted to 25%.	25100 %	0.01100 Default: 1	W
Vmax_UnitSel	AV[97]	Maximum volumetric flow limit in selected unit (V' _{max}) → Unit can be selected by MV[123]: UnitSelFlow Values below 25% will be adjusted to 25%.	0.00010.006m ³ /s 0.37522.700 m ³ /h 0.1046.305 l/s 6.250378.333 l/min 374.99422'700 l/h 1.65199.945 gpm 0.22113.360 cfm	0.00122'700 Default: 1	W

Object name	Object type [Instance]	Description Comment, Status_Flags	Values		COV increment	Access
Vnom_UnitSel	AV[100]	Nominal volumetric flow in selected unit (V' _{nom}) → Unit can be selected by MV[123]: UnitSelFlow	00.006 m ³ /s 022.700 m ³ /h 06.305 l/s 0378.333 l/mir 022'700.000 l/ 099.945 gpm 013.360 cfm	ו h	0.00122'700 Default: 1	R
UnitSelVolume	MV[126]	Unit selection volume The selected unit is valid for AV[50], A[52], PIV[50]	1: m ³ 4 2: Litre D 3: Gallon	: Cubic foot Default: 1		W
VolumePIV_ UnitSel	PIV[50]	Accumulated volume in selected unit → Unit can be selected by MV[126] See also MV[200]: Select meter registers	042'000'000 m ² 042'000'000'00 011'095'226'199 01'483'216'002	3 10 l 9 gal cf		R
StatusFlow	MV[104]	 Status flow 2: Actual flow exceeds the designed nominal flow. 3: Flow is measured but position of valve is closed 4: Setpoint cannot be reached within 3 min. during flow control 5: Valve detected a reverse flow 	1: OK 2: Actual flow exc nominal flow 3: Flow with clos 4: Flow setpoint reached 5: Reverse flow	eeds ed valve cannot be		R
StatusMedia	MV[105]	Status media 2: Glycol was detected in a MID application 3: Measured temperature & glycol concentration indicate that grease ice can build up	1: OK 2: Glycol detecte 3: Freeze warnin	g	-	R

Power

These objects can be used to configure and read values related to the Power Management. For Power Setpoint see AO[1]: Setpoint Relative in section "Control and general settings".

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
RelPower	AV[40]	Relative power in % Related to P' _{max} AV[110], AV[113]: Maximum Power Limit	0300	0.01300 Default: 1	R
CoolingPower_ UnitSel	AV[45]	Absolute power cooling in selected unit → Unit can be selected by MV[124]: Unit selection power	03'990'000 W 03'990 kW 03.99 MW 013'614'444 BTU/h 013'614 kBTU/h 01'134 ton	0.13'990'000 Default: 1	
HeatingPower_ UnitSel	AV[46]	Absolute power heating in selected unit → Unit can be selected by MV[124]: Unit selection power	03'990'000 W 03'990 kW 03.99 MW 013'614'444 BTU/h 013'614 kBTU/h 013'614 kBTU/h 01'134 ton	0.13'990'000 Default: 1	R
UnitSelPower	MV[124]	Unit selection power The selected unit is valid for AV[45], AV[46], AV[113], AV[116]	1: W 5: kBTU/h 2: kW 6: ton 3: MW Default: 2 4: BTU/h	_	W
Pmax	AV[110]	Maximum power limit in % The maximum power limit setpoint in % is related to AV[116]: P' _{nom} and considered when MV[100]: Control Mode = 3: Power Control.	0.5100	0.01100 Default: 1	W
Pmax_UnitSel	AV[113]	Absolute maximum power limit in selected unit Related to P'nom → Unit can be selected by MV[124]: Unit selection power	6'6501'330'000 W 6.651330 kW 0.0061.33 MW 22'6904'538'148 BTU/h 22.694'538 kBTU/h 1.89378 ton	0.11'330'000 Default: 1	W
Pnom_UnitSel	AV[116]	Nominal power in selected unit → Unit can be selected by MV[124]: Unit selection power	01'330'000 W 01330 kW 01.33 MW 04'538'148 BTU/h 04'538 kBTU/h 0378 ton	0.11'330'000 Default: 1	R
StatusPower	MV[107]	Status power 2: Setpoint cannot be reached within 15 min. during power control	1: OK 2: Power not reached	_	R

Energy

These objects can be used to configure and read values related to the energy monitoring function.

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
CoolingEnergy_ UnitSel	AV[47]	Absolute energy cooling in selected unit → Unit can be selected by MV[125]: Unit selection energy See also MV[200]: Select meter registers	02'147'483'647	12'147'483'647 Default: 1	R
HeatingEnergy_ UnitSel	AV[48]	Absolute energy heating in selected unit → Unit can be selected by MV[125]: Unit selection energy See also MV[200]: Select meter registers	02'147'483'647	12'147'483'647 Default: 1	R
UnitSelEnergy	MV[125]	Unit selection energy The selected unit is valid for AV[47], AV[48], PIV[31], PIV[32]	1: J 7: MWh 2: kJ 8: BTU 3: MJ 9: kBTU 4: GJ 10: tonh 5: Wh Default: 6: kWh 10: tonh	6	W
SelectMeter- Registers	MV[200]	Select meter registers Select between certified meter register and lifetime register. Value 1 only available for models with MID certification EVR2+MID. For non MID certificied models value 2 is defined as default.		_	W
		 The certified meter register will be reset when the sensor module is replaced. The lifetime register is compensated for glycol (if applicable). 	1: Certified meter regist 2: Lifetime meter regist	er er	
		Avoid toggling between the two registers as this will affect data logging.	Detault: T (2)		
		Following objects depend on the selected meter register:			
		AV[52]: Accumulated volume in selected unit AV[47]: Absolute energy cooling in selected unit AV[48]: Absolute energy heating in selected unit			
CoolingEnergy- PIV_UnitSel	PIV[31]	Absolute energy cooling in selected unit → Unit can be selected by MV[125]: Unit selection energy See also MV[200]: Select meter registers	02'147'483'647	12'147'483'647	R
HeatingEnergy- PIV_UnitSel	PIV[32]	Absolute energy heating in selected unit → Unit can be selected by MV[125]: Unit selection energy See also MV[200]: Select meter registers	02'147'483'647	12'147'483'647	R
MeterSerialNo_ Part1	PIV[201]	Energy meter serial number first digits ProductionOrderNumber	-	_	R
MeterSerialNo_ Part2	PIV[202]	Energy meter serial number last digits ProductionSequenceNumber	-	-	R

Differential pressure

These objects can be used to configure and read values related to the differential pressure control functionality. Differential pressure control is only available for 2-way applications.

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
SpAbsDiffPressure_ UnitSel	AV[135]	Setpoint absolute differential water pressure in selected unit Value range is related to selected differential water pressure sensor type → Unit can be selected by MV[131]: Unit selection differential water pressure	10'000400'000 Pa 0.14 bar 1.4558.02 psi 1004'000 mbar 10400 kPa	0390'000 Default: 0.1	W
RelDiffPressure	AV[56]	Relative differential water pressure Relative to dp setpoint max	0100	0.01100 Default: 0.1	R
AbsDiffPressure_ UnitSel	AV[55]	Absolute differential water pressure in selected unit → Unit can be selected by MV[131]: Unit selection differential water pressure	0600'000.00 Pa 06.00 bar 058.01 psi 06'000.00 mbar 0600.00 kPa	0.01600'000 Default: 0.1	 R
UnitSelDiff- Pressure	MV[131]	Unit selection differential water pressure	1: Pa 4: mbar 2: bar 5: kPa 3: psi Default: 2		W
NomDiffPressure_ UnitSel	AV[136]	Nominal differential water pressure in selected unit Value range is related to selected dP sensor type → Unit can be selected by MV[131]: Unit selection differential water pressure	0600'000.0 Pa 06.0 bar 087.0 psi 06'000.0 mbar 0600.0 kPa	0.01600'000 Default: 0.1	R
StatusSensor- DiffPressure	MV[140]	Status differential water pressure	1: OK 2: Differential pressure not detected Default: 1		R
StatusDiff- PressureControl	MV[141]	Status differential water pressure control	1: OK 2: Differential pressure setpoint cannot be reached 3: Minimum position applied Default: 1	-	R

Temperature

The measured temperature values can be read out via the objects below.

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
T1_UnitSel	AI[22]	Temperature 1 (remote) in selected unit → Unit can be selected by MV[127]: UnitSelTemperature	-20150°C 253.15423.15 K -4302°F	0.01306 Default: 1	R
T2_UnitSel	AI[23]	Temperature 2 (flow body) in selected unit → Unit can be selected by MV[127]: UnitSelTemperature	-20150°C 253.15423.15 K -4302°F	0.01306 Default: 1	R

Conversion of sensor signals

These objects can be used to configure the additional Sensor 1 Input on Y3 and read objects related to.

Object name	Object type [Instance]	Description Comment, Status_Flags	Values		COV increment	Access
Sens1Active_Volt	AI[20]	Sensor 1 as voltage in V If MV[220]: Sens1Type is not = 2: Active then Out_Of_Service is TRUE	015		0.0115 Default: 0.1	R
Sens1Passive_Ohm	AI[21]	Sensor 1 as resistance in Ω If MV[220]: Sens1Type is not = 4: Passive then Out_Of_Service is TRUE	0.11'000'000		0.11'000'000 Default: 1	R
Sens1Temp_ UnitSel	AV[20]	Sensor 1 as temperature in selected unit → Unit can be selected by MV[127]: Sens1TempType If MV[221]: Sens1TempType is = 1: None or MV[220]: Sens1Type is not = 4: Passive then Out_Of_Service is TRUE	-20150°C 253.15423.15 K -4248 °F		0.01252 Default: 1	R
Sens1Switch	BI[20]	Sensor 1 as switch If MV[220]: Sens1Type is not = 5: Switch then Out_Of_Service is TRUE	0: Inactive 1: Active		_	R
UnitSelTempe- rature	MV[127]	Unit selection temperature sensors The selected unit is valid for AI[22], AI[23]	1: °C 2: K	3: °F Default: 1	_	W
Sens1Type	MV[220]	Sensor 1 type Additional sensor input. Only selectable if MV[122]: SpSource is = 2: Bus.	1: None 2: Active volt 3: –	4: Passive 5: Switch Default: 1	_	W
Sens1TempType	MV[221]	Sensor 1 passive type Values related to selected units on MV[127]. Only available if [MV[220]: Sensor 1 type = 4: Passive.	1: None 2: PT1000 3: Ni1000EU 4: - 5: -	6: – 7: – 8: NTC10k2 9: NTC10k3 Default: 1	-	W
StatusSensor	MV[103]	 Status sensor Indicates informations within the flow sensor and both temperature sensors 2: Air in the system, error occurred during flow measurement. 3: Error with embedded temperature sensor 4: No connection to external temperature sensor 5: Internal communication to flow sensor interrupted 	1: OK 2: Flow meas 3: Flowbody te 4: Remote ter 5: Communic sensor inte	urement error emperature not OK nperature not OK ation to flow rrupted	-	R

Delta T manager

These objects can be used to specify the delta T manger functionality and read the corresponding objects.

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
SpDeltaT_UnitSel	AV[120]	Setpoint delta temperature in selected unit → Unit can be selected by MV[128]: Unit selection delta T	055°C 055 K 099°F	0.0199 Default: 1	W
		Considered when delta T limitation active (not = 1: disabled). Check datasheet for further information.			
DeltaT_UnitSel	AV[22]	Delta Temperature in selected unit → Unit can be selected by MV[128]: Unit selection delta T	0450°C 0450 K 0810°F	0.01810 Default: 1	R
UnitSelDeltaT	MV[128]	Unit selection delta T The selected unit is valid for AV[22]	- 1: °С 2: К 3: °F Default: 1	_	W
SpAbsFlow- DeltaT_UnitSel	AV[127]	Setpoint absolute flow at delta T in selected unit → Unit can be selected by MV[123]: UnitSelFlow Considered when delta T limitation is set to delta T manager-scaled. Check datasheet for further information	00.1 m ³ /s 0360 m ³ /h 0100 l/s 06'000 l/min 0360'000 l/h 01'585.03 gpm 0211.888 cfm	0360'000 Default: 1	W
DeltaT_Limitation	MV[101]	 Delta T limitation 1: Delta T manager not active 2: Delta T manager active with no restriction to flow 3: Delta T manager active with restriction to flow AV[127]: Setpoint absolute flow at delta T 	1: Disabled 2: dT-Manager 3: dT-Manager scaling Default: 1		W
StatusDeltaTMgr	MV[102]	 Delta T manager status 1: Delta T manager deactivated 2: Delta T manager activated but not active 3: Delta T manager active 4: Delta T manager active with no limitation to the flow 5: Delta T manager active with limitation to flow AV[127]: Setpoint absolute flow at delta T 	 1: Not selected 2: Standby 3: Active 4: Scaling standby 5: Scaling active		R

Health state

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

Object name	Object type [Instance]	Description Comment, Status_Flags	Values	COV increment	Access
ErrorState	AV[140]	Error State Value is bit-coded. More than one bit can be set to 1. Not all bits mentioned in the enumeration are used for this product range.	Bitmask =	1524'287 Default: 0	R
		 0: Communication with actuator not possible. 1: Gear train disengaged button is pressed 2: Mechanical overload due to blocked valve, etc. 3: Reverse flow is detected 4: Setpoint cannot be reached within 15 min during flow control 5: Flow is measured but position of valve is closed 6: Actual flow exceeds the designed nominal flow 7: Air in the system, error occurred during flow measurement 8: No connection to external temperature sensor 9: Error with embedded temperature sensor 10: Internal communication to flow sensor interrupted 11: Measured temperature & glycol concentration indicate that grease ice can build up 12: Glycol was detected in a MID application 13: Setpoint cannot be reached within 15 min during power control 14: MID only. The sensor module must be replaced. 15: Timeout for the bus watchdog expired 16: No differential pressure detected within 5 min during pressure control 17: Differential pressure setpoint can not be reached within 15 min during pressure control 18: Minimum position (27%) is applied if: The valve is restartet After a power failure The manual override was previously operated Switching from another control mode (e.g. flow control) to control mode differential pressure is present at a flow rate <0.7% V'nom 	 0: No communication to actuator 1: Gear train disengaged 2: Actuator cannot move 3: Reverse flow 4: Flow setpoint not reached 5: Flow with closed valve 6: Flow actual exceeds flow nominal 7: Flow measurement error 8: Remote temperature error 9: Flowbody temperature error 10: Communication to Sensor interrupted 11: Freeze warning 12: Glycol detected 13: Power setpoint not reached 14: Device end of life reached 15: Bus watchdog triggered 16: No differential pressure detected 17: Differential pressure setpoint can not be reached 18: Minimum position applied 		
SummaryStatus	MV[99]	Summary status Summarises all status	1: OK 2: Warning	-	R
		MV[102]: Status delta T manager MV[103]: Status sensor MV[104]: Status flow MV[105]: Status Media MV[106]: Status actuator MV[107]: Status power MV[140]: Status differential water pressure MV[141]: Status differential water pressurecontrol	3: Not OK		

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

Note: According to the present configuration settings of the Energy Valve (e.g. DN size) the HVAC application may perform a size limitation within the indicated BACnet value range. Each Energy Valve may have different HVAC value size limitations.

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.







