



6-way PI zone valve (C6..QP..-...+BAC)

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Data-Pool General Notes

- General information**
- The device supports the MP Data-Pool functional profile. All available data points are managed in a data pool and accessible with MP read/write commands.
 - This document describes all public data pool values of the device. It's divided into process values and configuration values.
 - The MP Data-Pool functional profile is specified in the MP Cooperation Documentation. The document is provided to Belimo MP-Partners.
 - See the technical datasheet for technical information about the device itself

MP-Bus Address 1..8

Number of Nodes Max. 8

Identification The connected type can be identified by its series number:

Prefix	Profile Type	Profile Category	Type
2	7	23	C6..QP(T)-..+BAC

Configuration Configuration data are password protected
The default password is ,0000'

Timing of MP-Bus queries Master implementations typically poll the slaves in cycles (MP1, MP2, MP3, ...). Reading all data pool values of this node in one cycle is not recommended, because it would reduce the overall MP-Bus performance

Recommendation:

- Split up the queries into several cycles (e.g. 3 queries per cycle).
- Adjust repetition rates (reading values) according to the rate of change of the value
- Prevent from reading unused data pool values

Data-Pool Valves Overview

	No.	Register	Access
Process	1	Setpoint [%]	R/W
	2	Override Control	R/W
	4	Relative Position [%]	R
	5	-	-
	6	Relative Flow [%]	R
	7	Setpoint Absolute Flow [UnitSel]	R
	8	Absolute Flow [UnitSel]	R
	9	Absolute Flow [l/h]	R
	10	Absolute Flow [gpm]	R
	14	Active Sequence	R
Service	103	Malfunction & Service information	R
	104	Vmax Sequence 1 [%]	R/W
	105	Vmax Sequence 2 [%]	R/W
	108	Absolute Vnom [UnitSel]	R
	109	Absolute Vnom [l/h]	R
	110	Absolute Vnom [gpm]	R
	113	Unit Selection Flow	R/W
118	Control Mode	R	

Data-Pool Valves Process Data

Address	Description Comment	Range Enumeration	Unit	Scaling	Size	Access
1	Setpoint [%] Setpoint for actuator between Vmax1 (Address No. 104) and Vmax2 (Address No.105) Setpoint 0...33% refers to range Vmax1...0 l/h i.e. Setpoint 0% = Vmax1 / Setpoint 33% = 0 l/h Setpoint 67...100% refers to 0 l/h...Vmax2 i.e. Setpoint 67% = 0 l/h / Setpoint 100% = Vmax2	0...100.00	%	0.01	2	R / W
2	Override Control	0: None 1: Open Sequence 1 (0%) 2: Open Sequence 2 (100%) 3: Close (50%) 4: Vmax Sequence 1 5: Vmax Sequence 2	-	-	1	R / W
4	Relative Position [%] Combined Relative Position Relative Position 0...33% refers to range Vmax1...0 l/h i.e. Setpoint 0% = Vmax1 / Setpoint 33% = 0 l/h Relative Position 67...100% refers to 0 l/h...Vmax2 i.e. Setpoint 67% = 0 l/h / Setpoint 100% = Vmax2	0...100.00	%	0.01	2	R
5	-	-	-	-	-	-
6	Relative Flow [%] Calculated value	0...100.00	%	0.01	2	R
7	Setpoint Absolute Flow [UnitSel] Calculated value	0...4'294'967.295	UnitSel	0.001	4	R
8	Absolute Flow [UnitSel] Calculated value	0...4'294'967.295	UnitSel	0.001	4	R
9	Absolute flow [l/h] Calculated value	0...4'294'967.295	l/h	0.001	4	R
10	Absolute flow [gpm] Calculated valve	0...4'294'967.295	gpm	0.001	4	R
14	Active Sequence	0 = Sequence 1 (0..33%) 1 = Sequence 2 (67...100%) 2 = Dead Band (34...66%)	-	-	1	R

Service Data

Address	Description Comment	Range Enumeration	Unit	Scaling	Size	Access
103	Malfunction & Service information Actuator can't move: Mechanical overload due to blocked valve, etc. Valid for 6 way and 2-way valve	Bit00 (1) = No communication to 2-way valve Bit01 (2) = - Bit02 (4) = - Bit03 (8) = Actuator can't move Bit04 (16) = - Bit05 (32) = - Bit06 (64) = - Bit07 (128) = - Bit08 (256) = - Bit09 (512) = Gear disengaged Bit10 (1024) = - Bit11 (2048) = -	-	-	2	R
104	Vmax Sequence 1 [%] Related to Vnom 1)	10...100.00	%	0.01	2	R / W
105	Vmax Sequence 2 [%] Related to Vnom 1)	10...100.00	%	0.01	2	R / W
108	Absolute Vnom [UnitSel]	0...4'294'967.295	UnitSel	0.001	4	R
109	Absolute Vnom [l/h]	0...4'294'967.295	l/h	0.01	4	R
110	Absolute Vnom [gpm]	0...4'294'967.295	gpm	0.001	4	R
113	Unit Selection Flow	0 = m3/s 1 = m3/h 2 = l/s 3 = l/min 4 = l/h 5 = gpm 6 = cfm	-	-	1	R / W
118	Control Mode	0 = - 1 = Flow	-	-	1	R

1) Minimum V'max values may vary, related to Device type

	min V'max [l/h]	min V'max [%]
C615QP-B+BAC	40	19
C615QP-D+BAC	100	23
C615QP-F+BAC	190	19
C620QPT-G+BAC	600	28