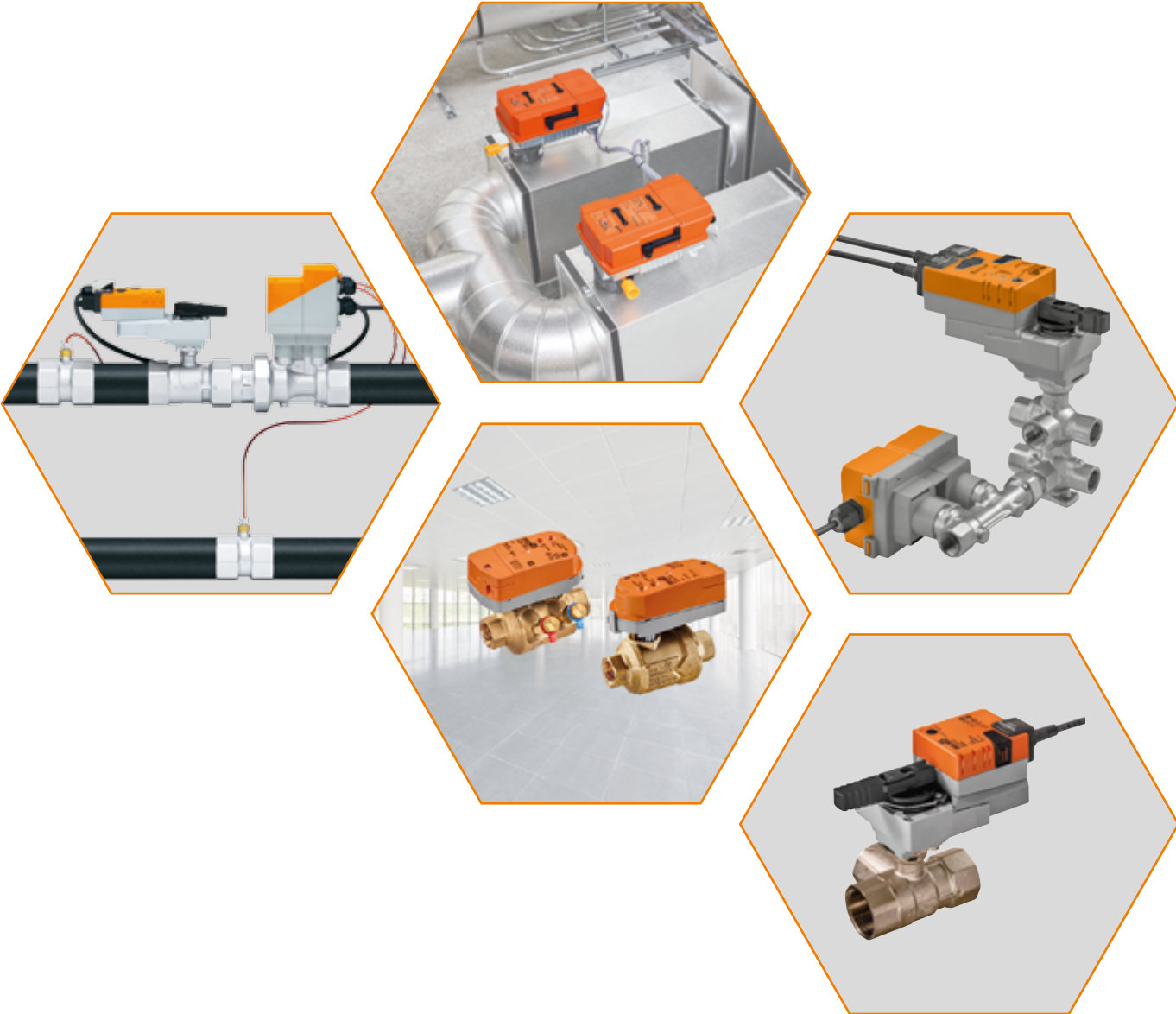


The complete product range for water applications

Edition 2019



4	Control valves	Zone valves	3
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7		Globe valves	29
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4

BELIMO
ZoneTight™

Zone valves

Maximum comfort, minimum consumption

2-way zone valve (QCV)	Internal thread		4
3-way change-over ball valve (QCV)		PN 16 DN 15/DN 20	5
2-way zone valve (QCV)	External thread		6
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Pressure-independent characterised control valve (PIQCV)		PN 16 DN 15 – 25	8
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6-way characterised control valve		PN 16 DN 15 – 25	10
Electronic pressure-independent 6-way characterised control valve		PN 16 DN 15/DN 20	11

Refer to the data sheets or notes for project planning for further technical data to be observed.



Valve Sizer App

You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.



DN 15 / DN 20



Range of use	Closed water circuit (pH > 7)
Medium temperature	2...90 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Flow characteristic	A-AB, equal percentage
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2...10 V) Communication MP-Bus®	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor	Actuator type	DN 15		DN 20												
								k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type											
1 Nm	•	•	•	•	24 V	75 s	CQ24A	350	280	350	280											
												•	•	•	•	230 V	75 s	CQ24A-SR	350	280	350	280
												•	•	•	•	24 V	75 s	CQ24A-MPL	350	280	350	280
												•	•	•	•	230 V	75 s	CQK24A-SR	350	280	350	280
	•	•	•	•	230 V	75 s	CQK230A	350	280	350	280											
												•	•	•	•	230 V	35 s	CQC230A	350	280	350	280
	•	•	•	•	230 V	15 s	CQD230A	350	280													
												•	•	•	•	230 V	15 s	CQD230A-20			350	280

¹⁾ Standard actuators with connecting terminals present (e.g. CQ24A-T)

²⁾ Actuators with emergency control function NO present (e.g. CQK24A-O)

DN 15 / DN 20



Range of use	Closed water circuit (pH > 7)
Medium temperature	2...90 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor	Actuator type	DN 15		DN 20												
							k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type											
1 Nm	•	•	•	24 V	75 s	CQ24A	350	280	350	280											
											•	•	•	•	230 V	75 s	CQ230A	350	280	350	280
											•	•	•	•	230 V	75 s	CQK230A	350	280	350	280
											•	•	•	•	15 s	CQD230A	350	280			
	•	•	•	•	15 s	CQD230A-20			350	280											

¹⁾ Standard actuators with connecting terminals present (e.g. CQ24A-T)

²⁾ Actuators with emergency control function NO present (e.g. CQK24A-O)

DN 15 / DN 20



Range of use	Closed water circuit (pH > 7)
Medium temperature	2...90 °C
Pipe connection	External thread G (ISO 228-1)
Flow characteristic	A-AB, equal percentage
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

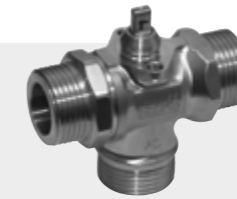
Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2...10 V)	Communication MP-Bus®	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor	Actuator type	DN 15		DN 20	
									k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
									0.4-4.5	C415Q-J	0.5-7.8	C420Q-K
1 Nm	•	•	•	•		24 V	75 s	CQ24A	350	280	350	280
								CQ24A-SR	350	280	350	280
								CQ230A	350	280	350	280
								CQ24A-MPL	350	280	350	280
1 Nm	•		•	-I-	24 V	75 s	CQK24A	350	280	350	280	
							CQK24A-SR	350	280	350	280	
							CQK230A	350	280	350	280	
1 Nm	•	•			230 V	35 s	CQC230A	350	280	350	280	
							CQD230A	350	280			
							CQD230A-20			350	280	

¹⁾ Standard actuators with connecting terminals present (e.g. CQ24A-T)

²⁾ Actuators with emergency control function NO present (e.g. CQK24A-O)

DN 15 / DN 20



Range of use	Closed water circuit (pH > 7)
Medium temperature	2...90 °C
Pipe connection	External thread G (ISO 228-1)
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor	Actuator type	DN 15		DN 20	
							k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
							2.3	C515Q-H	3.6	C520Q-J
1 Nm	•	•		24 V	75 s	CQ24A	350	280	350	280
						CQ230A	350	280	350	280
1 Nm	•	-I-		24 V	75 s	CQK24A	350	280	350	280
						CQK230A	350	280	350	280
1 Nm	•	•		230 V	35 s	CQC230A	350	280	350	280
						CQD230A	350	280		
						CQD230A-20			350	280

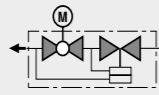
¹⁾ Standard actuators with connecting terminals present (e.g. CQ24A-T)

²⁾ Actuators with emergency control function NO present (e.g. CQK24A-O)

Zone valves
Pressure-independent characterised control valve (PIQCV) /
internal thread / PN 16



DN 15-25



C2..QP-..



C2..QPT-..

Range of use	Closed water circuit (pH > 7)
Medium temperature	2...90 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Flow characteristic	A-AB, equal percentage
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators

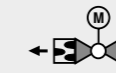
Nominal torque	Open-close	3-point	Modulating (2...10 V)	Communication MP-Bus®	Emergency control function	Nominal voltage AC/DC 24 V	Running time motor	Actuator type	DN 15		DN 20		DN 25	
									Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1 Nm	•	•	•	•	- -	24 V	75 s	CQ24A	700	350	700	350	700	350
								CQ24A-SR	700	350	700	350	700	350
								CQ230A	700	350	700	350	700	350
								CQ24A-MPL	700	350	700	350	700	350
1 Nm	•	•	•	- -	24 V	75 s	CQK24A	700	350	700	350	700	350	
							CQK24A-SR	700	350	700	350	700	350	
							CQK230A	700	350	700	350	700	350	
1 Nm	•	•	•	- -	230 V	15 s	CQC230A	700	350	700	350	700	350	
							CQD230A	700	350	700	350	700	350	

¹⁾ Standard actuators with connecting terminals present (e.g. CQ24A-T)
²⁾ Actuators with emergency control function NO present (e.g. CQK24A-O)



Zone valves
Pressure-independent flow limiter valve (PIFLV) / Internal thread /PN 16

DN 15-25



C2..QFL-..



R225FL-..

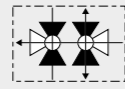
Range of use	Closed water circuit (pH < 7)
Medium temperature	2...60 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)
Closing pressure	Δp_s : 520 kPa
Max. differential pressure	Δp_{max} : 280 kPa

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V	Running time motor 90°	Actuator type	DN 15		DN 20		DN 25	
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1 Nm	•	•	•	24 V	75 s	CQ24A	700	350	700	350		
						CQ230A	700	350	700	350		
						LR24A					700	350
						LR230A					700	350
1 Nm	•	•	- -	24 V	75 s	CQK24A	700	350	700	350		
						CQK230A	700	350	700	350		

¹⁾ Standard actuators with connecting terminals present (e.g. CQ24A-T)
²⁾ Actuators with emergency control function NO present (e.g. CQK24A-O)
³⁾ Availability of goods and services 2nd Quarter 2019

DN 15 / DN 20



R30.....

Range of use	Closed water circuit (pH > 7)
Medium temperature	6...80 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Linear flow characteristic	Sequence I: 0...30° Dead zone: 30...60° Sequence II: 60...90°
Leakage rate	Leakage rate A, air bubble tight (EN 12266-1)

DN 15			DN 20		
Sequence I	Sequence II	Valve type	Sequence I	Sequence II	Valve type
0.25	0.25	R3015-P25-P25-B2	0.63	1.6	R3020-P63-1P6-B2
	0.4	R3015-P25-P4-B2		2.5	R3020-P63-2P5-B2
	0.63	R3015-P25-P63-B2		4	R3020-P63-4-B2
	1	R3015-P25-1-B2		1.6	R3020-1-1P6-B2
	1.3	R3015-P25-1P3-B2		2.5	R3020-1-2P5-B2
0.4	1.8	R3015-P25-1P8-B2	4	R3020-1-4-B2	
	0.25	R3015-P4-P25-B2	0.63	R3020-1P6-P63-B2	
	0.4	R3015-P4-P4-B2	1	R3020-1P6-1-B2	
	0.63	R3015-P4-P63-B2	1.6	R3020-1P6-1P6-B2	
	1	R3015-P4-1-B2	2.5	R3020-1P6-2P5-B2	
0.63	1.3	R3015-P4-1P3-B2	4	R3020-1P6-4-B2	
	1.8	R3015-P4-1P8-B2	0.63	R3020-2P5-P63-B2	
	0.25	R3015-P63-P25-B2	1	R3020-2P5-1-B2	
	0.4	R3015-P63-P4-B2	1.6	R3020-2P5-1P6-B2	
	0.63	R3015-P63-P63-B2	2.5	R3020-2P5-2P5-B2	
1	1	R3015-1-P25-B2	4	R3020-2P5-4-B2	
	0.4	R3015-1-P4-B2	0.63	R3020-4-P63-B2	
	0.63	R3015-1-P63-B2	1	R3020-4-1-B2	
	1	R3015-1-1-B2	1.6	R3020-4-1P6-B2	
	1.3	R3015-1-1P3-B2	2.5	R3020-4-2P5-B2	
1.3	1.8	R3015-1-1P8-B2	4	R3020-4-4-B2	
	0.25	R3015-1P3-P25-B2	0.63	R3020-4-1-B2	
	0.4	R3015-1P3-P4-B2	1	R3020-4-1P6-B2	
	0.63	R3015-1P3-P63-B2	1.6	R3020-4-1P6-B2	
	1	R3015-1P3-1-B2	2.5	R3020-4-2P5-B2	
1.8	1.3	R3015-1P3-1P3-B2	4	R3020-4-2P5-B2	
	1.8	R3015-1P3-1P8-B2	0.63	R3020-4-P63-B2	
	0.25	R3015-1P8-P25-B2	1	R3020-4-1-B2	
	0.4	R3015-1P8-P4-B2	1.6	R3020-4-1P6-B2	
	0.63	R3015-1P8-P63-B2	2.5	R3020-4-2P5-B2	
1.8	1	R3015-1P8-1-B2	4	R3020-4-4-B2	
	1.3	R3015-1P8-1P3-B2			
	1.8	R3015-1P8-1P8-B2			

Suitable actuators

Actuator type	Nominal torque	Modulating (2 ... 10 V)	Modulating (2 ... 10 V, variable)	MP-Bus® communication ¹⁾	Nominal voltage AC/DC 24 V	Running time motor 90°
LR..	5 Nm	•	•	•	24 V	90 s

Actuator type	Δp _s [kPa]	Δp _{max} [kPa]	Δp _s [kPa]	Δp _{max} [kPa]
LR24A-SR	350	100	350	100
LR24A-MP	350	100	350	100

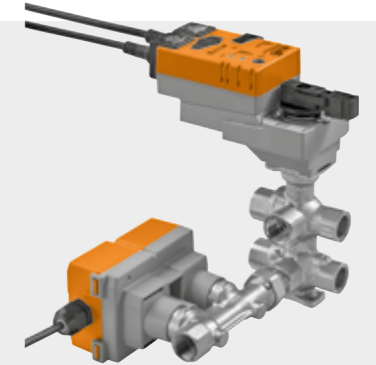
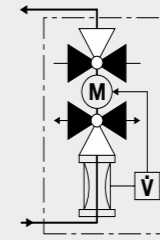
Suitable actuators

Actuator type	Nominal torque	Modulating (2 ... 10 V)	Modulating (2 ... 10 V, variable)	Communication MP-Bus®	Nominal voltage AC/DC 24 V	Running time motor 90°
NR..	10 Nm	•	•	•	24 V	90 s

DN 25		
Sequence I	Sequence II	Valve type
6.3	6.3	R3025-6P3-6P3-B3
Actuator type	Δp _s [kPa]	Δp _{max} [kPa]
NR24A-SR	350	100
NR24A-MP	350	100

¹⁾ Control, operating range, position feedback, running time and further functions are adjustable on MP types using PC-Tool.

DN 15 / DN 20



Range of use	Closed water circuit (pH > 7)
Medium temperature	6...80 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Flow characteristic	Linear
Leakage rate	Leakage rate A, air bubble tight (EN 12266-1)
V _{max}	Freely adjustable 5... 100% of V _{nom}
Control, operating range, position feedback, running time and further functions are parameterisable with NFC-App and ZTH EU	

DN	V _{nom}	V _{max} low noise	Nominal voltage AC/DC 24 V	Modulating (2 ... 10 V, variable)	MP-Bus® communication	Communication BACnet®	Modbus communication	Valve type with actuator	Δp _s [kPa]	Δp _{max} [kPa]
15	1260 l/h	840 l/h	24 V	•	•	•	•	EP015R-R6+BAC	350	110
20	2340 l/h	1620 l/h	24 V	•	•	•	•	EP020R-R6+BAC	350	110

5

Pressure-independent characterised control valves

Complete transparency and highest efficiency

Belimo Energy Valve™	Internal thread	2-way	PN 16	DN 15–50	14
	Flange			DN 65–150	15
Electronic pressure-independent characterised control valves (EPIV)	Internal thread	2-way	PN 16	DN 15–50	16
	Flange			DN 65–150	17

Refer to the data sheets or notes for project planning for further technical data to be observed.

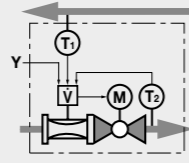
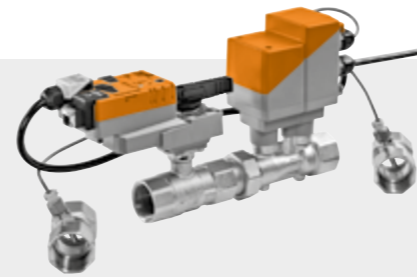


Valve Sizer App

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Belimo Energy Valve™
2-way / PN 16 / Internal Thread



DN 15–50

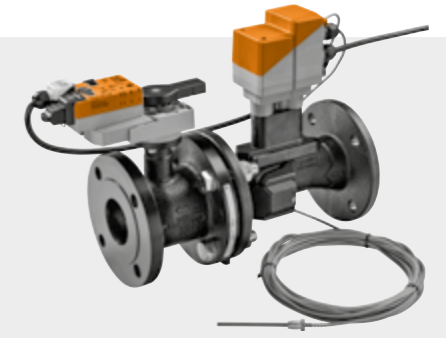
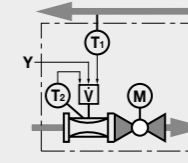
Range of use	Closed water circuit (pH > 7)
Medium temperature	-10...120 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Flow characteristic	Equal percentage (acc. to VDI/VDE 2178) Can be switched to linear
Leakage rate	A, air bubble tight (EN 12266-1)
V _{max}	Freely adjustable 30... 100% of V _{nom}
Completely parameterisable by means of integrated web server	
Optional with connection to the Belimo Cloud	
Sensor-guided flow-through or power control	
Delta-T manager for optimum differential temperature	



Belimo Energy Valve™
2-way / PN 16 / Flange

DN 65–150

Range of use	Closed water circuit (pH > 7)
Medium temperature	-10...120 °C
Pipe connection	Flange PN 16 (EN 1092-2)
Flow characteristic	Equal percentage (acc. to VDI/VDE 2178) Can be switched to linear
Leakage rate	A, air bubble tight (EN 12266-1)
V _{max}	Freely adjustable 45... 100% of V _{nom}
Completely parameterisable by means of integrated web server	
Optional with connection to the Belimo Cloud	
Sensor-guided flow-through or power control	
Delta-T manager for optimum differential temperature	



DN	Rp	V _{nom}	V _{nom}	Nominal voltage AC/DC 24 V	Modulating (2...10 V, variable)	MP-Bus® communication	Communication BACnet®	Modbus communication	Glycol monitoring ¹⁾	Valve type with actuator	Δp _s [kPa]	Δp _{max} [kPa]
With standard actuator												
15	1/2"	0.35 l/s	21 l/min	24 V	•	•	•	•	•	EV015R+BAC	1400	350
					•	•	•	•	•	EV015R+BAC1	1400	350
20	3/4"	0.65 l/s	39 l/min	24 V	•	•	•	•	•	EV020R+BAC	1400	350
					•	•	•	•	•	EV020R+BAC1	1400	350
25	1"	1.15 l/s	69 l/min	24 V	•	•	•	•	•	EV025R+BAC	1400	350
					•	•	•	•	•	EV025R+BAC1	1400	350
32	1 1/4"	1.8 l/s	108 l/min	24 V	•	•	•	•	•	EV032R+BAC	1400	350
					•	•	•	•	•	EV032R+BAC1	1400	350
40	1 1/2"	2.5 l/s	150 l/min	24 V	•	•	•	•	•	EV040R+BAC	1400	350
					•	•	•	•	•	EV040R+BAC1	1400	350
50	2"	4.8 l/s	288 l/min	24 V	•	•	•	•	•	EV050R+BAC	1400	350
					•	•	•	•	•	EV050R+BAC1	1400	350
With electrical emergency control function (SuperCap)												
15	1/2"	0.35 l/s	21 l/min	24 V	•	•	•	•	•	EV015R+KBAC	1400	350
					•	•	•	•	•	EV015R+KBAC1	1400	350
20	3/4"	0.65 l/s	39 l/min	24 V	•	•	•	•	•	EV020R+KBAC	1400	350
					•	•	•	•	•	EV020R+KBAC1	1400	350
25	1"	1.15 l/s	69 l/min	24 V	•	•	•	•	•	EV025R+KBAC	1400	350
					•	•	•	•	•	EV025R+KBAC1	1400	350
32	1 1/4"	1.8 l/s	108 l/min	24 V	•	•	•	•	•	EV032R+KBAC	1400	350
					•	•	•	•	•	EV032R+KBAC1	1400	350
40	1 1/2"	2.5 l/s	150 l/min	24 V	•	•	•	•	•	EV040R+KBAC	1400	350
					•	•	•	•	•	EV040R+KBAC1	1400	350
50	2"	4.8 l/s	288 l/min	24 V	•	•	•	•	•	EV050R+KBAC	1400	350
					•	•	•	•	•	EV050R+KBAC1	1400	350

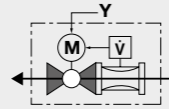
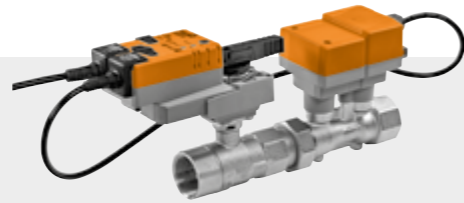
¹⁾ Optimum heat transfer can be ensured with the monitoring of the glycol content.

DN	V _{nom}	V _{nom}	Nominal voltage AC/DC 24 V	Modulating (2...10 V, variable)	MP-Bus® communication	Communication BACnet®	Modbus communication	Glycol monitoring ¹⁾	Valve type with actuator	Δp _s [kPa]	Δp _{max} [kPa]
With standard actuator											
65	8 l/s	480 l/min	24 V	•	•	•	•	•	P6065W800EV-BAC	690	340
				•	•	•	•	•	EV065F+BAC ²⁾	690	340
80	11 l/s	660 l/min	24 V	•	•	•	•	•	P6080W1100EV-BAC	690	340
				•	•	•	•	•	EV080F+BAC ²⁾	690	340
100	20 l/s	1200 l/min	24 V	•	•	•	•	•	P6100W2000EV-BAC	690	340
				•	•	•	•	•	EV100F+BAC ²⁾	690	340
125	31 l/s	1860 l/min	24 V	•	•	•	•	•	P6125W3100EV-BAC	690	340
				•	•	•	•	•	EV125F+BAC ²⁾	690	340
150	45 l/s	2700 l/min	24 V	•	•	•	•	•	P6150W4500EV-BAC	690	340
				•	•	•	•	•	EV150F+BAC ²⁾	690	340
With electrical emergency control function (SuperCap)											
65	8 l/s	480 l/min	24 V	•	•	•	•	•	P6065W800EV-KBAC	690	340
				•	•	•	•	•	EV065F+KBAC ²⁾	690	340
80	11 l/s	660 l/min	24 V	•	•	•	•	•	P6080W1100EV-KBAC	690	340
				•	•	•	•	•	EV080F+KBAC ²⁾	690	340
100	20 l/s	1200 l/min	24 V	•	•	•	•	•	P6100W2000EV-KBAC	690	340
				•	•	•	•	•	EV100F+KBAC ²⁾	690	340
125	31 l/s	1860 l/min	24 V	•	•	•	•	•	P6125W3100EV-KBAC	690	340
				•	•	•	•	•	EV125F+KBAC ²⁾	690	340
150	45 l/s	2700 l/min	24 V	•	•	•	•	•	P6150W4500EV-KBAC	690	340
				•	•	•	•	•	EV150F+KBAC ²⁾	690	340

¹⁾ Optimum heat transfer can be ensured with the monitoring of the glycol content.

²⁾ The EV..F+(K)BAC types shall replace the P6..EV-(K)BAC types over the course of 2019. Please get in touch with your local BELIMO contact person should you have any questions.

Electronic pressure-independent characterised control valve (EPIV)
2-way / PN 16 / Internal Thread



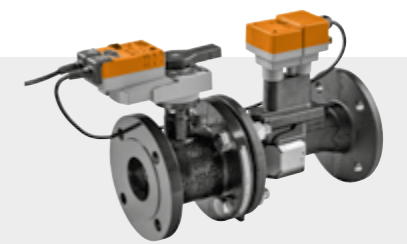
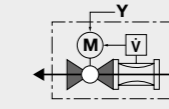
DN 15–50

Range of use	Closed water circuit (pH > 7)
Medium temperature	-10...120 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Flow characteristic	Equal percentage (acc. to VDI/VDE 2178) Can be switched to linear
Leakage rate	A, air bubble tight (EN 12266-1)
V _{max}	Freely adjustable 30... 100% of V _{nom}
Control, operating range, position feedback and further functions are parameterisable with PC-Tool	

DN	Rp	V _{nom}	V _{nom}	Nominal voltage AC/DC 24 V	Modulating (2...10 V, variable)	MP-Bus® communication	Modbus communication	Communication BACnet®	Valve type with actuator	Δp _s [kPa]	Δp _{max} [kPa]
With standard actuator											
15	1/2"	0.35 l/s	21 l/min	24 V	•	•			EP015R+MP	1400	350
20	3/4"	0.65 l/s	39 l/min	24 V	•	•			EP020R+MP	1400	350
25	1"	1.15 l/s	69 l/min	24 V	•	•			EP025R+MP	1400	350
32	1 1/4"	1.8 l/s	108 l/min	24 V	•	•			EP032R+MP	1400	350
40	1 1/2"	2.5 l/s	150 l/min	24 V	•	•			EP040R+MP	1400	350
50	2"	4.8 l/s	288 l/min	24 V	•	•			EP050R+MP	1400	350
With electrical emergency control function (SuperCap)											
15	1/2"	0.35 l/s	21 l/min	24 V	•	•			EP015R+KMP	1400	350
20	3/4"	0.65 l/s	39 l/min	24 V	•	•			EP020R+KMP	1400	350
25	1"	1.15 l/s	69 l/min	24 V	•	•			EP025R+KMP	1400	350
32	1 1/4"	1.8 l/s	108 l/min	24 V	•	•			EP032R+KMP	1400	350
40	1 1/2"	2.5 l/s	150 l/min	24 V	•	•			EP040R+KMP	1400	350
50	2"	4.8 l/s	288 l/min	24 V	•	•			EP050R+KMP	1400	350
With Modbus actuator											
15	1/2"	0.35 l/s	21 l/min	24 V	•	•	•		EP015R+MOD	1400	350
20	3/4"	0.65 l/s	39 l/min	24 V	•	•	•		EP020R+MOD	1400	350
25	1"	1.15 l/s	69 l/min	24 V	•	•	•		EP025R+MOD	1400	350
32	1 1/4"	1.8 l/s	108 l/min	24 V	•	•	•		EP032R+MOD	1400	350
40	1 1/2"	2.5 l/s	150 l/min	24 V	•	•	•		EP040R+MOD	1400	350
50	2"	4.8 l/s	288 l/min	24 V	•	•	•		EP050R+MOD	1400	350



Electronic pressure-independent characterised control valve (EPIV)
2-way / PN 16 / Flange



DN 65–150

Range of use	Closed water circuit (pH > 7)
Medium temperature	-10...120 °C
Pipe connection	Flange PN 16 (EN 1092-2)
Flow characteristic	Equal percentage (acc. to VDI/VDE 2178) Can be switched to linear
Leakage rate	A, air bubble tight (EN 12266-1)
V _{max}	Freely adjustable 45... 100% of V _{nom}
Control, operating range, position feedback and further functions are parameterisable with PC-Tool	

DN	V _{nom}	V _{nom}	Nominal voltage AC/DC 24 V	Modulating (2...10 V, variable)	MP-Bus® communication	Modbus communication	Communication BACnet®	Valve type with actuator	Δp _s [kPa]	Δp _{max} [kPa]
With standard actuator										
65	8 l/s	480 l/min	24 V	•	•			P6065W800E-MP	690	340
				•	•			EP065F+MP ¹⁾	690	340
80	11 l/s	660 l/min	24 V	•	•			P6080W1100E-MP	690	340
				•	•			EP080F+MP ¹⁾	690	340
100	20 l/s	1200 l/min	24 V	•	•			P6100W2000E-MP	690	340
				•	•			EP100F+MP ¹⁾	690	340
125	31 l/s	1860 l/min	24 V	•	•			P6125W3100E-MP	690	340
				•	•			EP125F+MP ¹⁾	690	340
150	45 l/s	2700 l/min	24 V	•	•			P6150W4500E-MP	690	340
				•	•			EP150F+MP ¹⁾	690	340
With electrical emergency control function (SuperCap)										
65	8 l/s	480 l/min	24 V	•	•			P6065W800E-KMP	690	340
				•	•			EP065F+KMP ¹⁾	690	340
80	11 l/s	660 l/min	24 V	•	•			P6080W1100E-KMP	690	340
				•	•			EP080F+KMP ¹⁾	690	340
100	20 l/s	1200 l/min	24 V	•	•			P6100W2000E-KMP	690	340
				•	•			EP100F+KMP ¹⁾	690	340
125	31 l/s	1860 l/min	24 V	•	•			P6125W3100E-KMP	690	340
				•	•			EP125F+KMP ¹⁾	690	340
150	45 l/s	2700 l/min	24 V	•	•			P6150W4500E-KMP	690	340
				•	•			EP150F+KMP ¹⁾	690	340
With Modbus actuator										
65	8 l/s	480 l/min	24 V	•	•	•		P6065W800E-MOD	690	340
				•	•	•		EP065F+MOD ¹⁾	690	340
80	11 l/s	660 l/min	24 V	•	•	•		P6080W1100E-MOD	690	340
				•	•	•		EP080F+MOD ¹⁾	690	340
100	20 l/s	1200 l/min	24 V	•	•	•		P6100W2000E-MOD	690	340
				•	•	•		EP100F+MOD ¹⁾	690	340
125	31 l/s	1860 l/min	24 V	•	•	•		P6125W3100E-MOD	690	340
				•	•	•		EP125F+MOD ¹⁾	690	340
150	45 l/s	2700 l/min	24 V	•	•	•		P6150W4500E-MOD	690	340
				•	•	•		EP150F+MOD ¹⁾	690	340

¹⁾The EP..F+(K)MP/MOD types shall replace the P6..E-(K)MP/MOD types over the course of 2019. Please get in touch with your local BELIMO contact person should you have any questions.

6

Characterised control valves (CCV)

Reliable control of
heating and cooling circuits

Internal thread	2-way	PN 16	DN 15–50	20
	3-way			
External thread	2-way	PN 16	DN 10–50	22
	3-way			
Flange	2-way	PN 6	DN 15–50	24
	3-way			
External thread	2-way	PN 16	DN 65–150	26
	2-way / 130 °C			

Refer to the data sheets or notes
for project planning for further technical data to be observed.



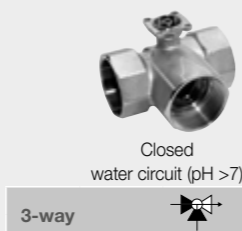
Valve Sizer App

You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.



DN 15-50

Pipe connection	Internal thread Rp (ISO 7-1)
Medium temperature	-10...120 °C (small actuators TR../TRY.. only up to 100 °C)
Flow characteristic	A-AB equal percentage / B-AB linear (k_{vs} 70% of A-AB)
Leakage rate	Control path A-AB: leakage rate A, tight (EN 12266-1) / bypass B-AB: leakage class I



DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.25	R2015-P25-S1	4	R2020-4-S2
0.4	R2015-P4-S1	6.3	R2020-6P3-S2
0.63	R2015-P63-S1	8.6	R2020-8P6-S2
1	R2015-1-S1		
1.6	R2015-1P6-S1		
2.5	R2015-2P5-S1		
4	R2015-4-S1		
6.3	R2015-6P3-S1		
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.25	R3015-P25-S1	4	R3020-4-S2
0.4	R3015-P4-S1	6.3	R3020-6P3-S2
0.63	R3015-P63-S1		
1	R3015-1-S1		
1.6	R3015-1P6-S1		
2.5	R3015-2P5-S1		
4	R3015-4-S1		

Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2...10 V)	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
2 Nm	•	•			24 V	100 s	
5 Nm	•	•			24 V	90 s	
10 Nm	•	•			24 V	90 s	
20 Nm	•	•			24 V	90 s	

Small and compact actuators

Actuator type	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
TR24 ²⁾	1400	350		
TR230-3 ²⁾	1400	350		
TR24-SR ²⁾	1400	350		
TRY24-SR ²⁾	1400	350		

Standard actuators

Actuator type	Δp_s [kPa]		$\Delta p_{max}^{1)}$ [kPa]	
	without auxiliary switch	with auxiliary switch	without auxiliary switch	with auxiliary switch
LR24A	1400	1400	350	350
LR230A	1400	1400	350	350
LR24A-SR	1400	1400	350	350
NR24A	1400	1400	350	350
NR230A	1400	1400	350	350
NR24A-SR	1400	1400	350	350
SR24A	1400	1400	350	350
SR230A	1400	1400	350	350
SR24A-SR	1400	1400	350	350

Fast runners and very fast runners

Actuator type	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
TRC24A-SR	1400	350		
LRC24A-SR	1400	350	1400	350
NRC24A-SR	1400	350	1400	350
SRC24A-SR	1400	350	1400	350

Actuators with mechanical emergency control function

Actuator type	Actuator type NC		Actuator type NO		Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
	without auxiliary switch	with 2 auxiliary switches	without auxiliary switch	with 2 auxiliary switches				
TRF24-SR ²⁾			..-O		1400	350		
LRF24-SR ²⁾					1400	350	1400	350
NRF24A-SR	..-S2		..-O	..-S2-O	1400	350	1400	350
SRF24A-SR	..-S2		..-O	..-S2-O	1400	350	1400	350

¹⁾ Low-noise operation $\Delta p_{max} = 200$ kPa.

²⁾ If medium temperature ≥ 100 °C, then line and valve must be insulated.

DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
6.3	R2025-6P3-S2			16	R2040-16-S3	25	R2050-25-S4
10	R2025-10-S2			16	R2032-16-S3	25	R2040-25-S3
16	R2025-16-S2			16	R3040-16-S3	25	R3040-25-S4
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
6.3	R3025-6P3-S2	16	R3032-16-S3	16	R3040-16-S3	25	R3050-25-S4
10	R3025-10-S2			16	R3040-16-S3	25	R3050-25-S4
16	R3025-16-S2			16	R3040-16-S3	25	R3050-25-S4
Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350
1400	350	1400	350	1400	350	1400	350

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DN 10-50

Pipe connection	External thread G (ISO 228-1)
Medium temperature	6...100 °C (DN 10-50: -10...5 °C with spindle heating) not with R4..K, R5..K, R538 and R548
Flow characteristic	A-AB equal percentage / B-AB linear (k_{vs} 70% of A-AB)
Leakage rate	Control path A-AB: leakage rate A, tight (EN 12266-1) / bypass B-AB: leakage class I



Closed and open water circuit (pH > 7)

2-way



Closed and open water circuit (pH > 7)

3-way

DN 10		DN 15	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.25	R405K	0.63	R409
0.4	R406K	1	R410
0.63	R407K	1.6	R411
1	R408K	2.5	R412
1.6	R409K	4	R413
		6.3	R414

DN 10		DN 15	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.25	R505K	0.63	R509
0.4	R506K	1	R510
0.63	R507K	1.6	R511
1	R508K	2.5	R512
		4	R513

Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2...10 V)	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
2 Nm	•	•			24 V	100 s	
		•			230 V	105 s	
			•		24 V	90 s	
				•	24 V	35 s	

Small and compact actuators

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]		Δp_{max} [kPa]	
			without auxiliary switch	with auxiliary switch	without auxiliary switch	with auxiliary switch
TR24	1400	200	1400	200	1400	200
TR230-3	1400	200	1400	200	1400	200
TR24-SR	1400	200	1400	200	1400	200
TRY24-SR	1400	200	1400	200	1400	200

Standard actuators

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]		Δp_{max} [kPa]	
			without auxiliary switch	with auxiliary switch	without auxiliary switch	with auxiliary switch
LR24A	1400	200	1400	200	1400	200
LR230A	1400	200	1400	200	1400	200
LR24A-SR	1400	200	1400	200	1400	200
NR24A	1400	200	1400	200	1400	200
NR230A	1400	200	1400	200	1400	200
NR24A-SR	1400	200	1400	200	1400	200
SR24A	1400	200	1400	200	1400	200
SR230A	1400	200	1400	200	1400	200
SR24A-SR	1400	200	1400	200	1400	200

Fast runners and very fast runners

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
TRC24A-SR	1400	200	1400	200
LRC24A-SR	1400	200	1400	200
NRC24A-SR	1400	200	1400	200
SRC24A-SR	1400	200	1400	200

Actuators with mechanical emergency control function

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Actuator type NC		Actuator type NO	
			without auxiliary switch	with 2 auxiliary switches	without auxiliary switch	with 2 auxiliary switches
TRF24-SR	1400	200	1400	200	1400	200
LRF24-SR	1400	200	1400	200	1400	200
NRF24A-SR	1400	200	1400	200	1400	200
SRF24A-SR	1400	200	1400	200	1400	200

DN 20		DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
4	R417	6.3	R422	16	R431	16	R438	25	R448
6.3	R418	10	R423			25	R439	40	R449
8.6	R419	16	R424						

DN 20		DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
4	R517	6.3	R522	16	R531	16	R538	25	R548
6.3	R518	10	R523						

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1400	200								
1400	200								
1400	200								
1400	200								

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1400	200								
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200
1400	200	1400	200	1400	200	1400	200	1400	200

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DN 15-50

Pipe connection	Flange PN 6 (EN 1092-1/4)
Medium temperature	-10...100 °C
Flow characteristic	A-AB equal percentage / B-AB linear (K_{vs} 70% of A-AB)
Leakage rate	Control path A-AB: leakage rate A, tight (EN 12266-1) / bypass B-AB: leakage class I



Closed and open water circuit (pH > 7)

2-way



Closed water circuit (pH > 7)

3-way

DN 15	DN 20
K_{vs} [m³/h]	K_{vs} [m³/h]
0.63	0.63
1	1
1.6	1.6
2.5	2.5
4	4
Valve type	Valve type
R6015RP63-B1	R6015RP63-B1
R6015R1-B1	R6015R1-B1
R6015R1P6-B1	R6015R1P6-B1
R6015R2P5-B1	R6015R2P5-B1
R6015R4-B1	R6015R4-B1
R7015RP63-B1	R7015RP63-B1
R7015R1-B1	R7015R1-B1
R7015R1P6-B1	R7015R1P6-B1
R7015R4-B1	R7015R4-B1

Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2 ... 10 V)	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
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Small and compact actuators

	Actuator type		Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
	without auxiliary switch	with auxiliary switch				
2 Nm	•	•	600	100	600	100
	•		600	100	600	100
		•	600	100	600	100
		•	600	100	600	100

Standard actuators

	Actuator type		Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
	without auxiliary switch	with auxiliary switch				
5 Nm	•	•	600	100	600	100
	•		600	100	600	100
		•	600	100	600	100
		•	600	100	600	100
10 Nm	•	•	600	100	600	100
	•		600	100	600	100
		•	600	100	600	100
		•	600	100	600	100
20 Nm	•	•	600	100	600	100
	•		600	100	600	100
		•	600	100	600	100
		•	600	100	600	100

Fast runners and very fast runners

Actuator type		Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
without auxiliary switch	with auxiliary switch				
2 Nm	•	600	100	600	100
5 Nm	•	600	100	600	100
10 Nm	•	600	100	600	100
20 Nm	•	600	100	600	100

Actuators with mechanical emergency control function

	Actuator type NC			Actuator type NO			Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
	without auxiliary switch	with 2 auxiliary switches	without auxiliary switch	with 2 auxiliary switches	without auxiliary switch	with 2 auxiliary switches				
2 Nm	•	•	•	•	•	•	600	100	600	100
4 Nm	•	•	•	•	•	•	600	100	600	100
10 Nm	•	•	•	•	•	•	600	100	600	100
20 Nm	•	•	•	•	•	•	600	100	600	100

DN 25	DN 32	DN 40	DN 50
K_{vs} [m³/h]	K_{vs} [m³/h]	K_{vs} [m³/h]	K_{vs} [m³/h]
10	16	25	40
Valve type	Valve type	Valve type	Valve type
R6025R10-B2	R6032R16-B3	R6040R25-B3	R6050R40-B3
K_{vs} [m³/h]	K_{vs} [m³/h]	K_{vs} [m³/h]	K_{vs} [m³/h]
10	16	16	25
Valve type	Valve type	Valve type	Valve type
R7025R10-B2	R7032R16-B3	R7040R16-B3	R7050R25-B3

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
600	100						
600	100						
600	100						
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100

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DN 65 – 150

Pipe connection	Flange PN 16 (EN 1092-2)
Medium temperature	-10...120 °C
Flow characteristic	A-AB, equal percentage
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2...10 V)	Emergency control function	Nominal voltage AC/DC 24 V	AC 230 V	Running time motor 90°	Running time emergency control function	Auxiliary switch SPDT
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Closed water circuit (pH >7)

2-way

DN 65		DN 80	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
63	R6065W63-S8	100	R6080W100-S8

DN 100		DN 125		DN 150	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
160	R6100W160-S8	250	R6125W250-S8	320	R6150W320-S8

Standard actuators

Actuator type	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
20 Nm	690	400	690	400
40 Nm	690	400	690	400

Fast runners

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
20 Nm	690	400	690	400

Actuators with emergency control function NC/NO

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
20 Nm	690	400	690	400
40 Nm	690	400	690	400

⊕ = actuators with mechanical emergency control function.
 -I- = actuators with electrical emergency control function. The emergency setting position NC/NO of all -I- actuators can be adjusted on the actuator.

¹⁾ Low-noise operation $\Delta p_{max} = 200$ kPa.

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Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
690	400	690	400	690	400
690	400	690	400	690	400

DN 10–20

Pipe connection	External thread G (ISO 228-1)
Medium temperature	2...130 °C
Flow characteristic	A-AB, equal percentage
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)
Z value min.	0.3 (EN 12266), cavitation factor with a fully open valve

Suitable actuators

Nominal torque	Open-close	3-point	Modulating (2...10 V)	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
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Closed and open water circuit (pH >7)

2-way



DN 10		DN 15		DN 20	
k_{vs} [m³/h]	Valve type				
0.3	R404DK				
0.4	R405DK				
0.63	R406DK	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
1	R407DK	2.5	R412D	6.3	R417D
1.6	R408DK	4	R413D	10	R418D
2.5	R409DK	6.3	R414D	16	R419D



Standard actuators

Nominal torque	Open-close	3-point	Modulating	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function	Actuator type	Δp_s	Δp_{v100}	Δp_{v0}	Δp_s	Δp_{v100}	Δp_{v0}	Δp_s	Δp_{v100}	Δp_{v0}
									[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	
5 Nm	• •				24 V	90 s		LR24A	1400	400	800	1400	400	800	1400	400	800
								LR230A	1400	400	800	1400	400	800	1400	400	800
								LR24A-SR	1400	400	800	1400	400	800	1400	400	800



Fast runners and very fast runners

Nominal torque	Open-close	3-point	Modulating	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function	Actuator type	Δp_s	Δp_{v100}	Δp_{v0}	Δp_s	Δp_{v100}	Δp_{v0}	Δp_s	Δp_{v100}	Δp_{v0}
									[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	
5 Nm			•		24 V	35 s		LRC24A-SR	1400	400	800	1400	400	800	1400	400	800



Actuators with emergency control function NC

Nominal torque	Open-close	3-point	Modulating	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function	Actuator type	Δp_s	Δp_{v100}	Δp_{v0}	Δp_s	Δp_{v100}	Δp_{v0}	Δp_s	Δp_{v100}	Δp_{v0}
									[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	
4 Nm			•	⊗	24 V	150 s	<20 s	LRF24-SR ¹⁾	1400	400	800	1400	400	800	1400	400	800

¹⁾ If medium temperature ≥ 100 °C, then line and valve must be insulated.

7

Globe valves

Energy-optimised control of steam, cold water,
low temperature hot water and high temperature water circuits

External thread	PN 16	2-way	DN 15 – 50	30
		3-way		
Flange	PN 6	2-way	DN 15 – 100	32
		3-way		
	PN 16	2-way	DN 15 – 100 (≤ 120 °C)	34
		3-way	DN 15 – 150 (≤ 120 °C)	
	PN 16	2-way	DN 15 – 150 (≤ 150 °C)	36
		3-way	DN 15 – 100 (≤ 150 °C)	
	PN 16 partly pressure-balanced	2-way	DN 40 – 150	38
		3-way		
	PN 16	2-way	DN 200 / DN 250	40
		3-way		
	PN 25	2-way	DN 15 – 50	42
		3-way	DN 15 – 100	
PN 25 partly pressure-balanced	2-way	DN 65 – 100	44	
	3-way			
Internal thread	PN 25 / stainless steel for special applications	2-way	DN 15 – 50	48
		3-way		

Refer to the data sheets or notes
for project planning for further technical data to be observed.



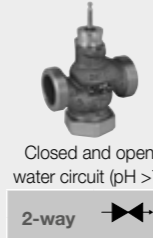
Valve Sizer App

You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.



DN 15–50

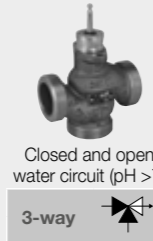
Pipe connection	External thread G (ISO 228-1)
Medium temperature	5...120 °C (-10...5 °C with spindle heating)
Flow characteristic	A-AB equal percentage / B-AB linear
Leakage rate	Control path A-AB: max. 0.05% of k_{vs} value bypass B-AB: max. 1% of k_{vs} value
Media	Cold and hot water, water with glycol up to max. 50 vol. %



	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
k_{vs} [m³/h]	0.63					
Valve type	H411B					
	1					
	H412B					
	1.6					
	H413B					
	2.5					
	H414B					
	4					
	H415B					
		6.3				
		H420B				
		10				
		H425B				
			16			
			H432B			
				25		
				H440B		
					40	
					H450B	

Suitable actuators

- Actuating force
- Actuating time per nominal stroke
- Actuating time for emergency control function
- Open-close
- 3-point
- Modulating (2...10 V)
- MP-Bus[®] communication ¹⁾
- Emergency control function
- Nominal voltage AC/DC 24 V AC 230 V



	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
k_{vs} [m³/h]	0.63					
Valve type	H511B					
	1					
	H512B					
	1.6					
	H513B					
	2.5					
	H514B					
	4					
	H515B					
		6.3				
		H520B				
		10				
		H525B				
			16			
			H532B			
				25		
				H540B		
					40	
					H550B	

Standard actuators

	Actuator type	Δp_s [kPa]		Δp_{max} [kPa]		Δp_s [kPa]		Δp_{max} [kPa]		Δp_s [kPa]		Δp_{max} [kPa]	
		500 N	150 s	500 N	150 s	1000 N	150 s	1000 N	150 s	1500 N	150 s	1500 N	150 s
LV.. NV.. SV..	24 V LV24A-TPC	1300	400	900	400	500	400	350	350	150	150	70	70
	230 V LV230A-TPC	1300	400	900	400	500	400	350	350	150	150	70	70
	24 V LV24A-SR-TPC	1300	400	900	400	500	400	350	350	150	150	70	70
	24 V LV24A-MP-TPC	1300	400	900	400	500	400	350	350	150	150	70	70
1000 N 150 s	24 V NV24A-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	230 V NV230A-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NV24A-SR-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NV24A-MP-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
1500 N 150 s	24 V SV24A-TPC	1600	400	1600	400	1600	400	1600	400	900	400	550	400
	230 V SV230A-TPC	1600	400	1600	400	1600	400	1600	400	900	400	550	400
	24 V SV24A-SR-TPC	1600	400	1600	400	1600	400	1600	400	900	400	550	400
	24 V SV24A-MP-TPC	1600	400	1600	400	1600	400	1600	400	900	400	550	400

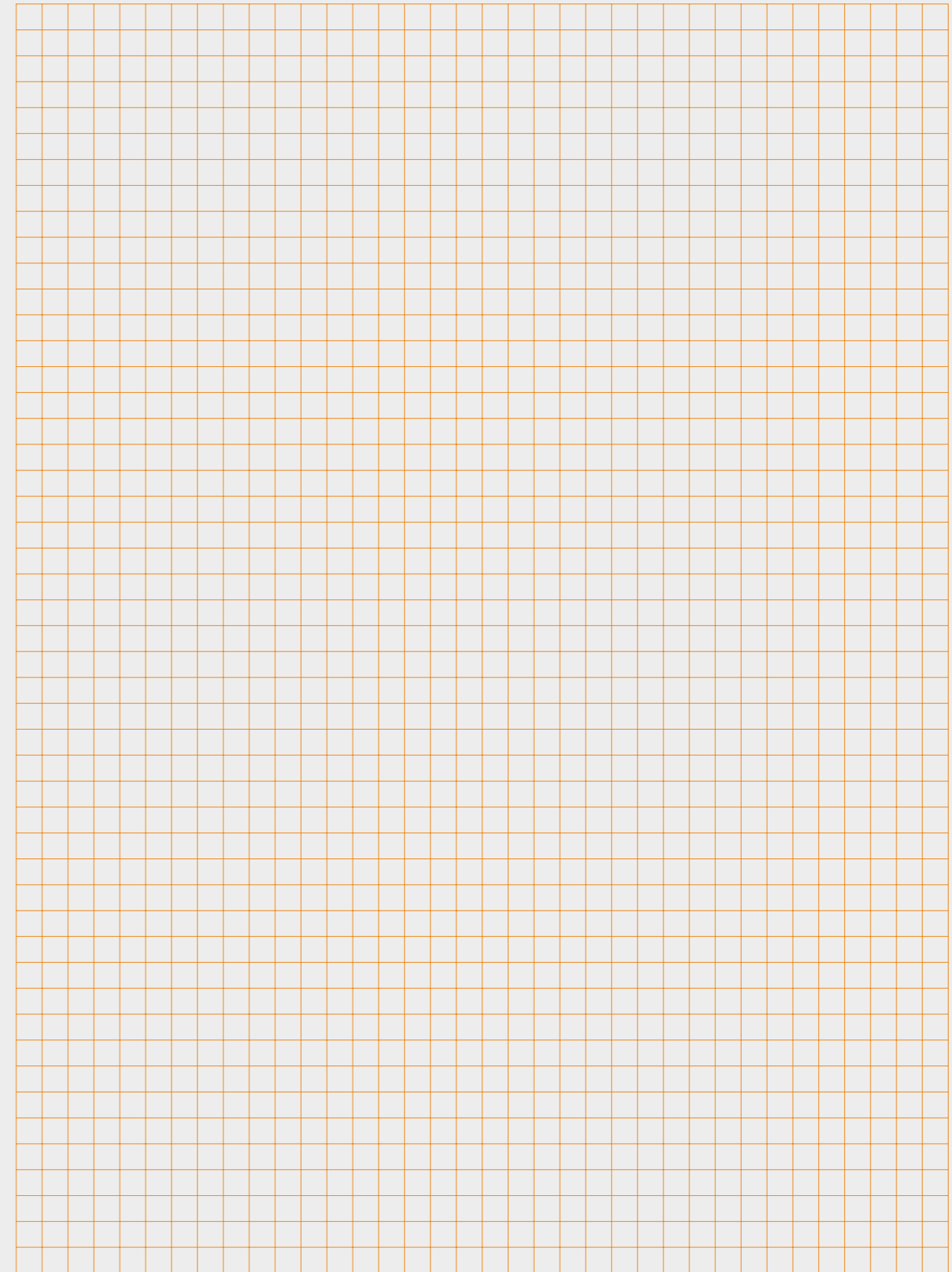
Fast runners

	Actuator type	Δp_s [kPa]		Δp_{max} [kPa]		Δp_s [kPa]		Δp_{max} [kPa]		Δp_s [kPa]		Δp_{max} [kPa]	
		500 N	35 s	500 N	35 s	1000 N	35 s	1000 N	35 s	1500 N	35 s	1500 N	35 s
LVC.. NVC.. SVC..	24 V LVC24A-SR-TPC	1300	400	900	400	500	400	350	350	150	150	70	70
	24 V LVC24A-MP-TPC	1300	400	900	400	500	400	350	350	150	150	70	70
1000 N 35 s	24 V NVC24A-SR-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NVC24A-MP-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
1500 N 35 s	24 V SVC24A-SR-TPC	1600	400	1600	400	1600	400	1600	400	900	400	550	400
	24 V SVC24A-MP-TPC	1600	400	1600	400	1600	400	1600	400	900	400	550	400

Actuators with electrical emergency control function ²⁾

	Actuator type	Δp_s [kPa]		Δp_{max} [kPa]		Δp_s [kPa]		Δp_{max} [kPa]		Δp_s [kPa]		Δp_{max} [kPa]	
		1000 N	150 s 35 s	1000 N	150 s 35 s	1000 N	35 s 35 s	1000 N	35 s 35 s	1000 N	35 s 35 s	1000 N	35 s 35 s
NVK.. NVKC..	24 V NVK24A-3-TPC ³⁾	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	230 V NVK230A-3	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NVK24A-SR-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NVK24A-MP-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NVKC24A-SR-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300
	24 V NVKC24A-MP-TPC	1600	400	1600	400	1300	400	1000	400	500	400	300	300

¹⁾ Running times, control signal, stroke limitation and other functions are adjustable on MP types using PC-Tool or ZTH EU parameterizing device (delivery state: modulating, operating range 2–10 V).
²⁾ The emergency setting position NC/NO of all -I- actuators can be adjusted on the actuator. Delivery state: actuator spindle retracted. Closing point of the globe valves H..B is at top (valve stem extended).
³⁾ Nominal voltage AC 24 V



DN 15–100

Pipe connection	Flange PN 6 (ISO 7005-2)
Medium temperature	5...120 °C (-10...5 °C with spindle heating)
Flow characteristic	A-AB equal percentage / B-AB linear
Leakage rate	Control path A-AB: max. 0.05% of k_{vs} value / Bypass B-AB: max. 1% of k_{vs} value
Media	Cold and hot water, water with glycol up to max. 50 vol. %



Closed cold and hot water systems

2-way

DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.63	H611R	6.3	H620R
1	H612R		
1.6	H613R		
2.5	H614R		
4	H615R		



Closed cold and hot water systems

3-way

k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.63	H711R	6.3	H720R
1	H712R		
1.6	H713R		
2.5	H714R		
4	H715R		

Suitable actuators

Actuating force	Actuating time per nominal stroke	Actuating time for emergency control function	Open-close	3-point	Modulating (2...10 V)	MP-Bus® communication ¹⁾	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V
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Standard actuators

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	24 V	
					Δp_s [kPa]	Δp_{max} [kPa]
500 N 150 s	600	400	600	400	•	•
					•	•
					•	•
					•	•
1000 N 150 s	600	400	600	400	•	•
					•	•
					•	•
					•	•
1500 N 150 s	600	400	600	400	•	•
					•	•
					•	•
					•	•
2500 N 150 s	600	400	600	400	•	•
					•	•
					•	•
					•	•
4500 N 120 s	600	400	600	400	•	•
					•	•

Fast runners

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	24 V	
					Δp_s [kPa]	Δp_{max} [kPa]
500 N 35 s	600	400	600	400	•	•
					•	•
1000 N 35 s	600	400	600	400	•	•
					•	•
1500 N 35 s	600	400	600	400	•	•
					•	•
2500 N 35 s	600	400	600	400	•	•

Actuators with electrical emergency control function²⁾

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	24 V	
					Δp_s [kPa]	Δp_{max} [kPa]
1000 N	600	400	600	400	•	-I-
					•	-I-
					•	-I-
					•	-I-
					•	-I-
					•	-I-
2000 N	600	400	600	400	•	-I-
					•	-I-
					•	-I-
					•	-I-
					•	-I-
					•	-I-

¹⁾ Running times, control signal, stroke limitation and other functions are adjustable on MP types using PC-Tool or ZTH EU parameterizing device (delivery state: modulating, operating range 2–10 V).
²⁾ The emergency setting position NC/NO of all -I- actuators can be adjusted on the actuator. Delivery state: actuator spindle retracted. Closing point of the globe valves H..R is at top (valve stem extended).
³⁾ Nominal voltage AC 24 V

DN 25		DN 32		DN 40		DN 50		DN 65		DN 80		DN 100	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
10	H625R	16	H632R	25	H640R	40	H650R	58	H664R	90	H679R	145	H6100R

k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
10	H725R	16	H732R	25	H740R	40	H750R	58	H764R	90	H779R	145	H7100R

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
500	400	350	350	150	150	70	70								
500	400	350	350	150	150	70	70								
600	400	600	400	500	400	300	300	140	140	80	80				
600	400	600	400	500	400	300	300	140	140	80	80				
600	400	600	400	500	400	300	300	140	140	80	80				
600	400	600	400	600	400	550	400	280	280	160	160				
600	400	600	400	600	400	550	400	280	280	160	160				
600	400	600	400	600	400	550	400	280	280	160	160				
600	400	600	400	600	400	550	400	280	280	160	160				
												200	200		
												200	200		
												200	200		
												200	200		
												450	400		

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
500	400	350	350	150	150	70	70								
600	400	600	400	500	400	300	300	140	140	80	80				
600	400	600	400	500	400	300	300	140	140	80	80				
600	400	600	400	600	400	550	400	280	280	160	160				
600	400	600	400	600	400	550	400	280	280	160	160				
												200	200		
												200	200		
												200	200		
												200	200		
												150	150		
												150	150		
												150	150		
												150	150		

DN 40 – 150

Pipe connection	Flange PN 16 (ISO 7005-2)
Medium temperature	5...150 °C (120 °C to 1600 kPa, 150 °C to 1400 kPa)
Flow characteristic	A-AB, equal percentage
Leakage rate	Control path A-AB: max. 0.05% of k_{vs} value
Media	For closed hot water and steam systems ($\Delta p/p1 < 0.4$), water with glycol up to max. 50 vol. %

Suitable actuators

Actuating force	
Actuating time per nominal stroke	
Actuating time for emergency control function	
Open-close	
3-point	
Modulating (2...10 V)	
MP-Bus® communication ¹⁾	
Emergency control function	
Nominal voltage AC/DC 24 V AC 230 V	



DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
25	H640SP	40	H650SP

Standard actuators

Actuator type	Voltage	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
NV.. SV..	24 V	NV24A-TPC	1600	1000	1600	1000
	230 V	NV230A-TPC	1600	1000	1600	1000
	24 V	NV24A-SR-TPC	1600	1000	1600	1000
	24 V	NV24A-MP-TPC	1600	1000	1600	1000
SV..	24 V	SV24A-TPC	1600	1000	1600	1000
	230 V	SV230A-TPC	1600	1000	1600	1000
	24 V	SV24A-SR-TPC	1600	1000	1600	1000
	24 V	SV24A-MP-TPC	1600	1000	1600	1000
EV.. RV..	24 V	EV24A-TPC				
	230 V	EV230A-TPC				
	24 V	EV24A-SR-TPC				
	24 V	EV24A-MP-TPC				
RV..	24 V	RV24A-SR				

Fast runners

Actuator type	Voltage	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
NVC..	24 V	NVC24A-SR-TPC	1600	1000	1600	1000
	24 V	NVC24A-MP-TPC	1600	1000	1600	1000
	24 V	SVC24A-SR-TPC	1600	1000	1600	1000
SVC..	24 V	SVC24A-MP-TPC	1600	1000	1600	1000
	24 V	EVC24A-SR				

Actuators with electrical emergency control function²⁾

Actuator type	Voltage	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
NVK.. NVKC..	24 V	NVK24A-3-TPC ³⁾	1600	1000	1600	1000
	230 V	NVK230A-3	1600	1000	1600	1000
	24 V	NVK24A-SR-TPC	1600	1000	1600	1000
	24 V	NVK24A-MP-TPC	1600	1000	1600	1000
	24 V	NVKC24A-SR-TPC	1600	1000	1600	1000
	24 V	NVKC24A-MP-TPC	1600	1000	1600	1000
AVK..	24 V	AVK24A-3-TPC ³⁾				
	230 V	AVK230A-3				
	24 V	AVK24A-SR-TPC				
	24 V	AVK24A-MP-TPC				

¹⁾ Running times, control signal, stroke limitation and other functions are adjustable on MP types using PC-Tool or ZTH EU parameterizing device (delivery state: modulating, operating range 2–10 V).
²⁾ The emergency setting position NC/NO of all H -actuators can be adjusted on the actuator. Delivery state: actuator spindle retracted. Closing point of the globe valves H6..SP is at bottom (valve stem retracted).
³⁾ Nominal voltage AC 24 V

DN 65		DN 80		DN 100		DN 125		DN 150	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
58	H664SP	90	H679SP	145	H6100SP	220	H6125SP	320	H6150SP

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
600	600	600	600	600	600	600	600	600	600
600	600	600	600	600	600	600	600	600	600
600	600	600	600	600	600	600	600	600	600
600	600	600	600	600	600	600	600	600	600

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
600	600	600	600	600	600	600	600	600	600

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
1600	1000	1600	1000						
600	600	600	600	600	600	600	600	600	600
600	600	600	600	600	600	600	600	600	600
600	600	600	600	600	600	600	600	600	600

DN 200 / DN 250

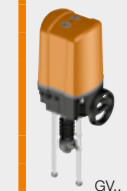
Pipe connection	Flange PN 16 (ISO 7005-2)
Medium temperature	5...120 °C
Flow characteristic	2-way: A-AB equal percentage 3-way: A-AB linear / B-AB linear
Leakage rate	Control path A-AB: max. 0.05% of k_{vs} value / bypass B-AB: max. 1% of k_{vs} value
Media	Cold and hot water, water with glycol up to max. 50 vol. %



2-way

Suitable actuators

Actuating force	Actuating time per nominal stroke	3-point	Modulating (2...10 V) ¹⁾	Nominal voltage AC/DC 24 V AC 230 V	Auxiliary switch SPDT
12000 N	82 s	•		230 V	2
			•	24 V	

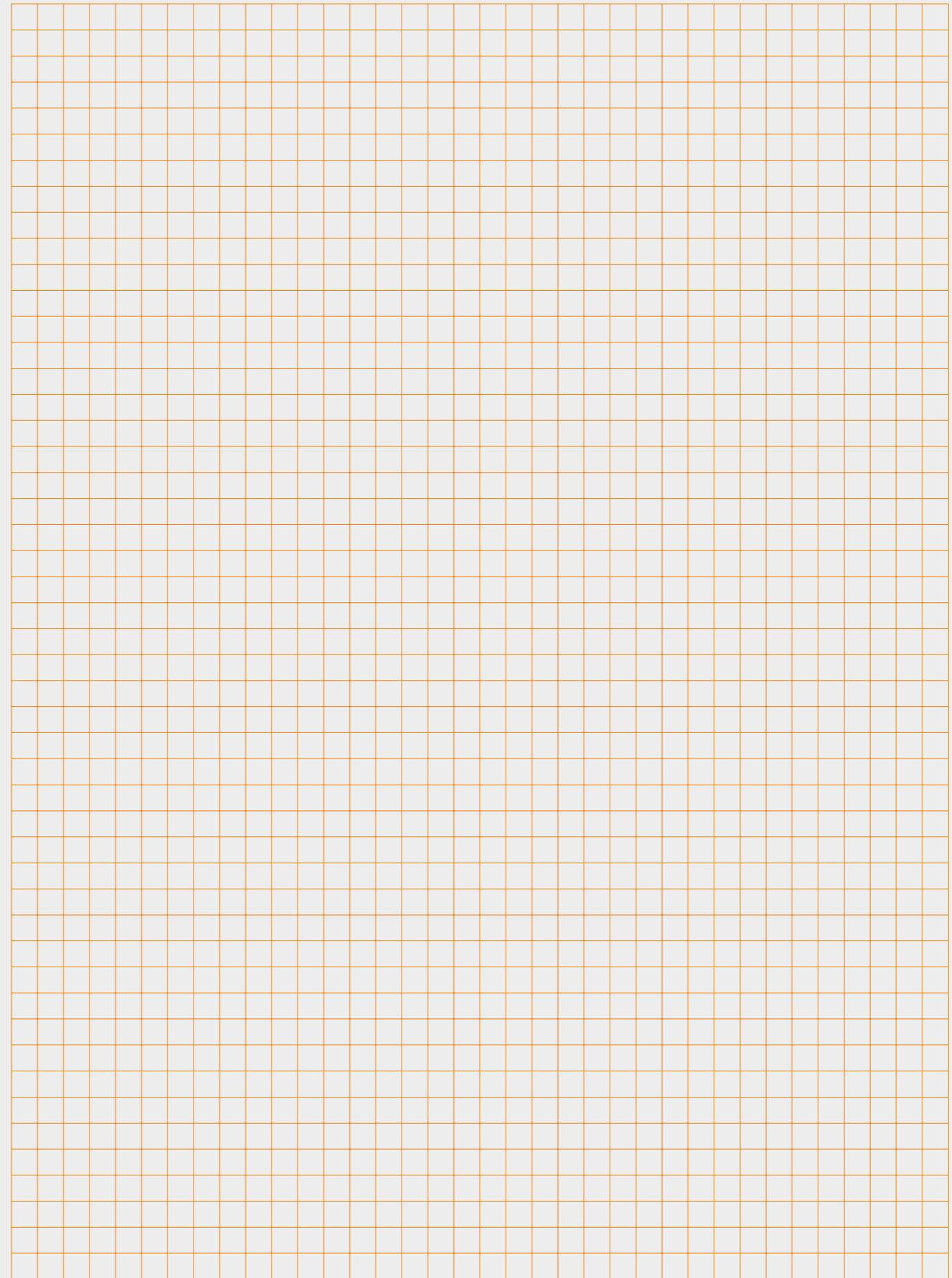


Standard actuators

Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
GV12-230-3-T	310	60	190	60
GV12-24-SR-T	310	60	190	60

¹⁾ Operating range can be switched 0.5–10 V / 2–10 V.

	DN 200	DN 250
2-way	630 H6200W630-S7	1000 H6250W1000-S7
3-way	k_{vs} [m³/h] 630 H7200W630-S7	k_{vs} [m³/h] 1000 H7250W1000-S7

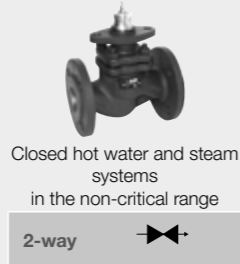


DN 65 – 100

Pipe connection	Flange PN 25 (ISO 7005-2)
Medium temperature	5...150 °C (120 °C to 2500 kPa, 150 °C to 2430 kPa)
Flow characteristic	A-AB, equal percentage
Leakage rate	Control path A-AB: max. 0.05% of k_{vs} value
Media	For closed hot water and steam systems ($\Delta p/p_1 < 0.4$), water with glycol up to max. 50 vol. %

Suitable actuators

Actuating force	
Actuating time per nominal stroke	
Actuating time for emergency control function	
Open-close	
3-point	
Modulating (2...10 V)	
MP-Bus® communication ¹⁾	
Emergency control function	
Nominal voltage AC/DC 24 V AC 230 V	



	DN 65	DN 80	DN 100
k_{vs} [m³/h]	58	90	125
Valve type	H6065X58-SP2	H6080X90-SP2	H6100X125-SP2

Standard actuators

Actuator type	Voltage	Actuating force	Actuating time	Emergency control	Modulating	MP-Bus	DN 65		DN 80		DN 100	
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
NV24A-TPC	24 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NV24A-SR-TPC	24 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NV24A-MP-TPC	24 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
SV24A-TPC	24 V	1500 N	150 s	•	•	•	2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
SV230A-TPC	230 V	1500 N	150 s	•	•	•	2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
SV24A-SR-TPC	24 V	1500 N	150 s	•	•	•	2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
SV24A-MP-TPC	24 V	1500 N	150 s	•	•	•	2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000

Fast runners

Actuator type	Voltage	Actuating force	Actuating time	Emergency control	Modulating	MP-Bus	DN 65		DN 80		DN 100	
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
NVC24A-SR-TPC	24 V	1000 N	35 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NVC24A-MP-TPC	24 V	1000 N	35 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
SVC24A-SR-TPC	24 V	1500 N	35 s	•	•	•	2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000
SVC24A-MP-TPC	24 V	1500 N	35 s	•	•	•	2500	1000	2400	1000	1700	1000
							2500	1000	2400	1000	1700	1000

Actuators with electrical emergency control function²⁾

Actuator type	Voltage	Actuating force	Actuating time	Emergency control	Modulating	MP-Bus	DN 65		DN 80		DN 100	
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
NVK24A-3-TPC ³⁾	24 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NVK230A-3	230 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NVK24A-SR-TPC	24 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NVK24A-MP-TPC	24 V	1000 N	150 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NVKC24A-SR-TPC	24 V	1000 N	35 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000
NVKC24A-MP-TPC	24 V	1000 N	35 s	•	•	•	2100	1000	1600	1000	1000	1000
							2100	1000	1600	1000	1000	1000

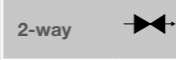
¹⁾ Running times, control signal, stroke limitation and other functions are adjustable on MP types using PC-Tool or ZTH EU parameterizing device (delivery state: modulating, operating range 2 – 10 V).
²⁾ The emergency setting position NC/NO of all -H- actuators can be adjusted on the actuator. Delivery state: actuator spindle retracted. Closing point of the globe valves H6..X is at bottom (valve stem retracted).
³⁾ Nominal voltage AC 24 V

DN 15-50

Pipe connection	Internal thread (ISO 7-1)
Medium temperature	0...130 °C
Flow characteristic	A-AB equal percentage / B-AB linear
Leakage rate	Control path and bypass 0.02% of k_{vs} value
Media	Cold, warm and high temperature water water with glycol up to max. 50% vol.



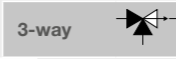
Closed cold and hot water systems



DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
1.9	H2015X-S	4.4	H2020X-S



Closed cold and hot water systems



DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
1.9	H3015X-S	4.4	H3020X-S

Suitable actuators

Actuating force 1)	Actuating time per nominal stroke	Open-close 3-point	Modulating (2...10 V)	MP-Bus® communication	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V
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Standard actuators

Actuating force	Actuating time	Open-close	Modulating	MP-Bus	Emergency	Nominal voltage	Actuator type				
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	
500 N	150 s	• •	• •	• •	• •	24 V	LV24A-TPC	800	800	800	800
						230 V	LV230A-TPC	800	800	800	800
						24 V	LV24A-SR-TPC	800	800	800	800
						24 V	LV24A-MP-TPC	800	800	800	800
1000 N	150 s	• •	• •	• •	• •	24 V	NV24A-TPC				
						230 V	NV230A-TPC				
						24 V	NV24A-SR-TPC				
						24 V	NV24A-MP-TPC				
1500 N	150 s	• •	• •	• •	• •	24 V	SV24A-TPC				
						230 V	SV230A-TPC				
						24 V	SV24A-SR-TPC				
						24 V	SV24A-MP-TPC				

Fast runners

Actuating force	Actuating time	Open-close	Modulating	MP-Bus	Emergency	Nominal voltage	Actuator type				
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	
500 N	35 s	• •	• •	• •	• •	24 V	LVC24A-SR-TPC	800	800	800	800
						24 V	LVC24A-MP-TPC				
1000 N	35 s	• •	• •	• •	• •	24 V	NVC24A-SR-TPC				
						24 V	NVC24A-MP-TPC				
1500 N	35 s	• •	• •	• •	• •	24 V	SVC24A-SR-TPC				
						24 V	SVC24A-MP-TPC				

Actuators with emergency control function NC/NO

Actuating force	Actuating time	Open-close	Modulating	MP-Bus	Emergency	Nominal voltage	Actuator type				
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	
1000 N	150 s	• •	• •	• •	• •	24 V	NVK24A-3-TPC ³⁾	800	800	800	800
						230 V	NVK230A-3	800	800	800	800
						24 V	NVK24A-SR-TPC	800	800	800	800
	35 s	• •	• •	• •	• •	24 V	NVK24A-MP-TPC	800	800	800	800
						24 V	NVKC24A-SR-TPC	800	800	800	800
						24 V	NVKC24A-MP-TPC	800	800	800	800

DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
8	H2025X-S	10	H2032X-S	20	H2040X-S	32	050X-S

DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
8	H3025X-S	10	H3032X-S	20	H3040X-S	32	H3050X-S

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
600	600						
600	600						
600	600						
600	600						
		550	550	590	590	290	290
		550	550	590	590	290	290
		550	550	590	590	290	290
		550	550	590	590	290	290
				700	700	500	500
				700	700	500	500
				700	700	500	500

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
600	600						
600	600						
		550	550	590	590	290	290
		550	550	590	590	290	290
				700	700	500	500
				700	700	500	500

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
600	600	550	550	590	590	290	290
600	600	550	550	590	590	290	290
600	600	550	550	590	590	290	290
600	600	550	550	590	590	290	290
600	600	550	550	590	590	290	290
600	600	550	550	590	590	290	290

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8

Control butterfly valves

Fit for reliable control applications

Flange with:		PN 6, 10, 16 / DN 25–300	50
- Wafer types	2-way	PN 10, 16 / DN 350	52
- Lug types		PN 16 / DN 400–700	
Flange with:		PN 16 / DN 150–300	54
- Lug types	3-way		

Refer to the data sheets or notes for project planning for further technical data to be observed.



Valve Sizer App

You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.



PN 6, 10, 16 / DN 25–300

Range of use	Closed and open water circuit (pH > 7)
Pipe connection	Flange (ISO 7005-2 and EN 1092-2) D6..W/WL additionally: as per ISO 7005-1 and EN 1092-1
Medium temperature	-20...120 °C
Leakage rate	A, tight (EN 12266-1)
PN 6, 10, 16	DN 25–300 wafer types
PN 10, 16	DN 25–150 lug types
PN 16	DN 200–300

	DN 25	DN 32	DN 40
For control applications k_{vs}^1 [m³/h]	24	25	27
With wafer types	Type RK D625N	Type RK D632N	Type RK D640N

With lug types	Type RK D625NL	Type RK D632NL	Type RK D640NL
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Suitable actuators

Nominal torque	Open-close	3-point	Modulating	Terminal connection	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Auxiliary switch SPDT
20 Nm	•	•	•			24 V	90 s	
40 Nm	•	•	•			24 V	150 s	
<90 Nm	•	•	•			24 V	150 s	

Standard actuators

Nominal torque	Open-close	3-point	Modulating	Terminal connection	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Actuator type Modulating (2...10 V)
20 Nm	•	•	•			24 V	90 s	SR24A-SR-5
40 Nm	•	•	•			24 V	150 s	SR230A-SR-5
<90 Nm	•	•	•			24 V	150 s	GR24A-SR-5
						24 V	150 s	DR24A-SR-5
						24 V	150 s	DR24A-SR-7

Fast runners

Nominal torque	Open-close	3-point	Modulating	Terminal connection	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Actuator type modulating (2...10 V)
160 Nm	•	•	•			AC 24...240 V DC 24...125 V	35 s ²⁾	PRCA-BAC-S2-T
								PRCA-BAC-S2-T-200
								PRCA-BAC-S2-T-250

Actuators with emergency control function NC/NO

Nominal torque	Open-close	3-point	Modulating	Terminal connection	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Actuator type NC/NO
160 Nm	•	•	•		— —	AC 24...240 V DC 24...125 V	35 s ²⁾	PRKCA-BAC-S2-T
								PRKCA-BAC-S2-T-200
								PRKCA-BAC-S2-T-250

—|— = actuators with electrical emergency control function. The emergency setting position NC/NO of all —|— actuators can be adjusted on the actuator.

¹⁾ For control applications with opening angle 60%. The maximum flow speed of 4 m/s may not be exceeded in the control valve.

²⁾ (30...120 s variable)

³⁾ Adapter ZPR01

⁴⁾ Adapter ZPR03

DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
30	50	75	150	260	400	820	1300	1740
Type RK D650N	Type RK D665N	Type RK D680N	Type RK D6100N	Type RK D6125N	Type RK D6150N	Type RK D6200W	Type RK D6250W	Type RK D6300W

Type RK D650NL	Type RK D665NL	Type RK D680NL	Type RK D6100NL	Type RK D6125NL	Type RK D6150NL	Type RK D6200WL	Type RK D6250WL	Type RK D6300WL
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Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1200	300	1200	300														
1200	300	1200	300														
1200	300	1200	300	1200	300												
				1200	300	1200	300										
								1200	300								

Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
				1200 ⁴⁾	300	1200 ⁴⁾	300	1200 ³⁾	300	1200 ³⁾	300					1400 ³⁾	300
												1400 ³⁾	300				
														1400 ³⁾	300		



Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
				1200 ⁴⁾	300	1200 ⁴⁾	300	1200 ³⁾	300	1200 ³⁾	300			1400 ³⁾	300		
												1400 ³⁾	300				
														1400 ³⁾	300		

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PN 10, 16 / DN 350
PN 16 / DN 400 – 700

Range of use	Closed and open water circuit (pH > 7)
Pipe connection	Flange (ISO 7005-2 and EN 1092-2)
Medium temperature	-20...120 °C
Leakage rate	A, tight (EN 12266-1)
PN 16	DN 350 – 700

	DN 350	DN 400	DN 450
For control applications $k_{vs}^{1)}$ [m³/h]	3010	4140	5490
			
With wafer types 	Type RK D6350N	Type RK D6400N	Type RK D6450N

Suitable actuators

Nominal torque	Modulating	Terminal connection	Nominal voltage AC 230V	Running time motor 90°	Auxiliary switch SPDT		DN 350	DN 400	DN 450
									
						With lug types 	Type RK D6350NL	Type RK D6400NL	Type RK D6450NL
Fast runners						Actuator type modulating (2...10 V)	Δp_s [kPa]	Δp_s [kPa]	Δp_s [kPa]
650 Nm	•	•	230 V	31 s	2	SY6-230-MF-T	600	300	600 ²⁾ 300
1000 Nm	•	•	230 V	55 s	2	SY7-230A-MF-T	1200 ⁵⁾	300	1000 ³⁾ 300
1500 Nm	•	•	230 V	55 s	2	SY8-230A-MF-T			600 ⁴⁾ 300
2000 Nm	•	•	230 V	70 s	2	SY9-230A-MF-T			1000 ⁴⁾ 300
2500 Nm	•	•	230 V	70 s	2	SY10-230A-MF-T			
3500 Nm	•	•	230 V	70 s	2	SY12-230A-MF-T			

¹⁾ For control applications with opening angle 60%. The maximum flow speed of 4 m/s may not be exceeded in the control valve.

²⁾ Adapter ZSY-401

³⁾ Adapter ZSY-701

⁴⁾ Adapter ZSY-702

⁵⁾ Adapter ZSY-703

⁶⁾ Adapter ZSY-901

⁷⁾ Adapter ZSY-902

⁸⁾ Adapter ZSY-903

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	DN 500	DN 600	DN 700
	7060	10900	11760
Type RK	Type RK	Type RK	Type RK
D6500N	D6600N	D6700N	

	DN 500	DN 600	DN 700
Type RK	Type RK	Type RK	Type RK
D6500N	D6600N	D6700N	

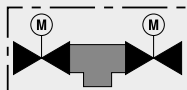
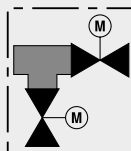
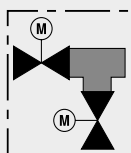
	Δp_s [kPa]	Δp_s [kPa]	Δp_s [kPa]
600 ⁴⁾ 300			
1000 ⁶⁾ 300			
	600 ⁷⁾ 300		
	1000 ⁷⁾ 300	200 ⁸⁾ 200	

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PN 16 / DN 150–300

Flange	In accordance with ISO 7005-2 and EN 1092-2 D7..WL/BAC additionally: as per ISO 7005-1 and EN 1092-1
Range of use	for change-over and control applications (mixing and distributing)
Medium temperature	-20...120 °C
Leakage rate	A, tight (EN 12266-1)
Communication	BACnet® MS/TP, Modbus RTU, MP-Bus® or conventional control
Control, opening angle limitation, running time and further functions are parameterisable with Belimo Assistant app	



DN	k_{vs} [m³/h] ¹⁾	modulating (2...10 V / 0.5...10 V)	Communication BACnet® MS/TP	Modbus RTU communication	MP-Bus® communication	Nominal voltage	Running time motor 90° ²⁾	Auxiliary switch SPDT	Degree of protection	Type butterfly valve with actuator	Δp_s [kPa]	Δp_{max} [kPa]
With communicative actuators												
150	400	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7150NL/BAC ³⁾	1200	300
200	800	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7200WL/BAC ³⁾	1400	300
250	1200	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7250WL/BAC ³⁾	1400	300
300	1700	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7300WL/BAC ³⁾	1400	300

¹⁾ For control applications with opening angle 60% (parameterisable with Belimo Assistant App):

- The maximum flow speed of 2.7 m/s may not be exceeded in the butterfly valve.

²⁾ (30...120 s variable)

³⁾ T-piece is not included in scope of delivery

Suitable T-pieces

	DN	Suitable for DK				Type
		D7150NL/BAC	D7200WL/BAC	D7250WL/BAC	D7300WL/BAC	
 <p>T-piece for 3-way butterfly valve Spheroidal cast iron with fastening screws</p>	150	•				ZD7150
	200		•			ZD7200
	250			•		ZD7250
	300				•	ZD7300

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Ball valves

Open-close and
change-over applications

Internal thread	2-way	PN 16	DN 15–50	56
	3-way T-bore	PN 16	DN 15–50	58
External thread	3-way L-bore	PN 16	DN 15–50	58
	2-way	PN 16	DN 15–50	60
Flange	3-way T-bore	PN 6	DN 15–50	62
	2-way	PN 6	DN 15–50	62

Refer to the data sheets or notes
note for project planning to be observed.

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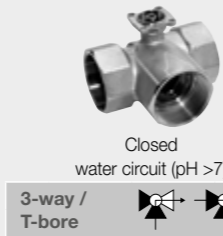
Valve Sizer App

You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.



DN 15-50

Pipe connection	Internal thread Rp (ISO 7-1)
Medium temperature	-10...120 °C (small actuators TR../TRY.. only up to 100 °C)
Flow characteristic	A-AB equal percentage / B-AB linear (k_{vs} 50% of A-AB)
Leakage rate	Control path A-AB: leakage rate A, air bubble tight (EN 12266-1) / bypass B-AB: leakage class I



DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
15	R2015-S1	32	R2020-S2
15	R3015-S1	32	R3020-S2

DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
26	R2025-S2	32	R2032-S3	31	R2040-S3	49	R2050-S4
26	R3025-S2	32	R3032-S3	31	R3040-S3	49	R3050-S4

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
2 Nm	•	•		24 V	35 s	
5 Nm	•	•		24 V	90 s	
10 Nm	•	•		24 V	90 s	
20 Nm	•	•		24 V	90 s	

Small and compact actuators		Actuator type	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
2 Nm	•	TRY24 ²⁾	1400	1000		
	•	TR24 ²⁾	1400	1000		
	•	TRY230 ²⁾	1400	1000		

Standard actuators		Actuator type without auxiliary switch	with auxiliary switch	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
5 Nm	•	LR24A	..-S	1400	1000	1400	1000
	•	LR230A	..-S	1400	1000	1400	1000
10 Nm	•	NR24A	..-S	1400	1000	1400	1000
	•	NR230A	..-S	1400	1000	1400	1000
20 Nm	•	SR24A	..-S	1400	1000	1400	1000
	•	SR230A	..-S	1400	1000	1400	1000

Very fast runners		Actuator type	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
4 Nm	•	LRQ24A	1400	1000	1400	1000
8 Nm	•	NRQ24A	1400	1000	1400	1000
16 Nm	•	SRQ24A	1400	1000	1400	1000

Actuators with mechanical emergency control function		Actuator type NC without auxiliary switch	with 1 auxiliary switch	Actuator type NO without auxiliary switch	with 1 auxiliary switch	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
2 Nm	•	TRF24 ²⁾	..-S	..-O	..-S-O	1400	1000		
	•	TRF230 ²⁾	..-S	..-O	..-S-O	1400	1000		
4 Nm	•	LRF24 ²⁾	..-S	..-O	..-S-O	1400	1000	1400	1000
	•	LRF230 ²⁾	..-S	..-O	..-S-O	1400	1000	1400	1000

Actuators with mechanical emergency control function		Actuator type NC without auxiliary switch	with 2 auxiliary switches	Actuator type NO without auxiliary switch	with 2 auxiliary switches	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
10 Nm	•	NRF24A	..-S2	..-O	..-S2-O	1400	1000	1400	1000
	•	NRFA	..-S2	..-O	..-S2-O	1400	1000	1400	1000
20 Nm	•	SRF24A	..-S2	..-O	..-S2-O	1400	1000	1400	1000
	•	SRFA	..-S2	..-O	..-S2-O	1400	1000	1400	1000

¹⁾ Low-noise operation $\Delta p_{max} = 200$ kPa.
²⁾ If medium temperature ≥ 100 °C, then line and valve must be insulated.

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Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{1)}$ [kPa]
1400	1000						
1400	1000						
1400	1000	1400	1000	1400	1000		
1400	1000	1400	1000	1400	1000		
1400	1000	1400	1000	1400	1000	1400	1000
1400	1000	1400	1000	1400	1000	1400	1000
1400	1000						
1400	1000						
1400	1000	1400	1000	1400	1000		
1400	1000	1400	1000	1400	1000	1400	1000
1400	1000	1400	1000	1400	1000	1400	1000
1400	1000	1400	1000	1400	1000	1400	1000

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DN 15–50

Pipe connection	Internal thread Rp (ISO 7-1)
Medium temperature	-10...100 °C
Leakage rate	Leakage rate A, air bubble tight (EN 12266-1)

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
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DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
5.5	R3015-BL1	11	R3020-BL2

DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
10	R3025-BL2	9	R3032-BL2	15	R3032-BL3	14	R3040-BL3
						47	R3040-BL4
						24	R3050-BL3
						75	R3050-BL4

Small and compact actuators				Actuator type				Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]
2 Nm	•	•	24 V	35 s	TRY24			500	350		
			230 V	100 s	TR24			500	350		
			230 V	35 s	TRY230			500	350		

Standard actuators				Actuator type without auxiliary switch				with auxiliary switch				Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]
5 Nm	•	•	24 V	90 s	LR24A	..-S	500	350	500	350					
			230 V		LR230A	..-S	500	350	500	350					
10 Nm	•	•	24 V	90 s	NR24A	..-S	500	350	500	350					
			230 V		NR230A	..-S	500	350	500	350					
20 Nm	•	•	24 V	90 s	SR24A	..-S	500	350	500	350					
			230 V		SR230A	..-S	500	350	500	350					

Very fast runners				Actuator type				Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]
4 Nm	•	•	24 V	9 s	LRQ24A			500	350	500	350
8 Nm	•	•	24 V	9 s	NRQ24A			500	350	500	350
16 Nm	•	•	24 V	9 s	SRQ24A			500	350	500	350

Actuators with mechanical emergency control function				Actuator type NC without auxiliary switch				Actuator type NO without auxiliary switch				with 1 auxiliary switch				Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]
2 Nm	•	•	24 V	75 s	75 s	TRF24	..-S	..-O	..-S-O	500	350								
			230 V	75 s	75 s	TRF230	..-S	..-O	..-S-O	500	350								
4 Nm	•	•	24 V	<75 s	<20 s	LRF24	..-S	..-O	..-S-O	500	350	500	350						
			230 V	<75 s	<20 s	LRF230	..-S	..-O	..-S-O	500	350	500	350						

Actuators with mechanical emergency control function				Actuator type NC without auxiliary switch				Actuator type NO without auxiliary switch				with 2 auxiliary switches				Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]	Δp_s [kPa]	$\Delta p_{max}^{(1)}$ [kPa]
10 Nm	•	•	24 V	<75 s	<20 s	NRF24A	..-S2	..-O	..-S2-O	500	350	500	350						
			AC 24...240 V DC 24...125 V	<75 s	<20 s	NRFA	..-S2	..-O	..-S2-O	500	350	500	350						
20 Nm	•	•	24 V	<75 s	<20 s	SRF24A	..-S2	..-O	..-S2-O	500	350	500	350						
			AC 24...240 V DC 24...125 V	<75 s	<20 s	SRFA	..-S2	..-O	..-S2-O	500	350	500	350						

¹⁾ Low-noise operation $\Delta p_{max} = 200$ kPa.

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DN 15-50

Pipe connection	External thread G (ISO 228-1)
Medium temperature	6...100 °C (-10...5 °C with spindle heating, not with R540, R550)
Flow characteristic	A-AB equal percentage / B-AB linear (k _{vs} 50% of A-AB)
Leakage rate	Control path A-AB: leakage rate A, air bubble tight (EN 12266-1) / bypass B-AB: leakage class I



Closed and open water circuit (pH >7)

2-way

DN 15		DN 20	
k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type
8.6	R415	21	R420



Closed and open water circuit (pH >7)

3-way / T-bore

DN 15		DN 20	
k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type
8.6	R515	21	R520

DN 25		DN 32		DN 40		DN 50	
k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type
26	R425	32	R432	32	R440	49	R450

DN 25		DN 32		DN 40		DN 50	
k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type	k _{vs} [m³/h]	Valve type
26	R525	32	R532	32	R540	49	R550

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function	Actuator type	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
2 Nm	•	•		24 V	35 s		TRY24	1400	400	1400	400
	•	•		230 V	100 s		TR24	1400	400	1400	400
	•	•		230 V	35 s		TRY230	1400	400	1400	400

Small and compact actuators								Actuator type	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
2 Nm	•	•		24 V	35 s		TRY24	1400	400	1400	400	
	•	•		230 V	100 s		TR24	1400	400	1400	400	
	•	•		230 V	35 s		TRY230	1400	400	1400	400	

Standard actuators								Actuator type without auxiliary switch	with auxiliary switch	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
5 Nm	•	•		24 V	90 s		LR24A	..-S	1400	400	1400	400	
	•	•		230 V		LR230A	..-S	1400	400	1400	400		
10 Nm	•	•		24 V	90 s		NR24A	..-S	1400	400	1400	400	
	•	•		230 V		NR230A	..-S	1400	400	1400	400		
20 Nm	•	•		24 V	90 s		SR24A	..-S	1400	400	1400	400	
	•	•		230 V		SR230A	..-S	1400	400	1400	400		

Very fast runners								Actuator type	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
4 Nm	•	•		24 V	9 s		LRQ24A	1400	400	1400	400	
8 Nm	•	•		24 V	9 s		NRQ24A	1400	400	1400	400	
16 Nm	•	•		24 V	9 s		SRQ24A	1400	400	1400	400	

Actuators with mechanical emergency control function								Actuator type NC without auxiliary switch	with 1 auxiliary switch	Actuator type NO without auxiliary switch	with 1 auxiliary switch	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
2 Nm	•		⊗	24 V	75 s	75 s	TRF24	..-S	..-O	..-S-O	1400	400	1400	400	
	•		⊗	230 V	75 s	75 s	TRF230	..-S	..-O	..-S-O	1400	400	1400	400	
4 Nm	•		⊗	24 V	<75 s	<20 s	LRF24	..-S	..-O	..-S-O	1400	400	1400	400	
	•		⊗	230 V	<75 s	<20 s	LRF230	..-S	..-O	..-S-O	1400	400	1400	400	

Actuators with mechanical emergency control function								Actuator type NC without auxiliary switch	with 2 auxiliary switches	Actuator type NO without auxiliary switch	with 2 auxiliary switches	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
10 Nm	•		⊗	24 V	<75 s	<20 s	NRF24A	..-S2	..-O	..-S2-O	1400	400	1400	400	
	•		⊗	AC 24...240 V DC 24...125 V	<75 s	<20 s	NRFA	..-S2	..-O	..-S2-O	1400	400	1400	400	
20 Nm	•		⊗	24 V	<75 s	<20 s	SRF24A	..-S2	..-O	..-S2-O	1400	400	1400	400	
	•		⊗	AC 24...240 V DC 24...125 V	<75 s	<20 s	SRFA	..-S2	..-O	..-S2-O	1400	400	1400	400	

¹⁾ Low-noise operation Δp_{max} = 200 kPa.

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Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]

Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
1400	400						
1400	400						
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400

Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
1400	400						
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400

Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
1400	400						
1400	400						

Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]	Δp _s [kPa]	Δp _{max} ¹⁾ [kPa]
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400

DN 15–50

Pipe connection	Flange PN 6 (EN 1092-1/4)
Medium temperature	-10...100 °C
Flow characteristic	A-AB equal percentage / B-AB linear (k_{vs} 50% of A-AB)
Leakage rate	Control path A-AB: leakage rate A, air bubble tight (EN 12266-1) / bypass B-AB: leakage class I



Closed and open water circuit (pH >7)

2-way



Closed water circuit (pH >7)

3-way / T-bore

DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
15	R6015R-B1	32	R6020R-B1
15	R7015R-B1	32	R7020R-B1

DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
26	R6025R-B2	32	R6032R-B3	31	R6040R-B3	49	R6050R-B3
26	R7025R-B2	32	R7032R-B3	31	R7040R-B3	49	R7050R-B3

Suitable actuators

Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Running time emergency control function
2 Nm	•	•		24 V	35 s	
5 Nm	•	•		24 V	90 s	
10 Nm	•	•		24 V	90 s	
20 Nm	•	•		24 V	90 s	

Small and compact actuators		Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
TR.. TRY..	2 Nm	TRY24	600	100	600	100
		TR24	600	100	600	100
		TRY230	600	100	600	100

Standard actuators		Actuator type without auxiliary switch	with auxiliary switch	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
LR.. NR.. SR..	5 Nm	LR24A	..-S	600	100	600	100
		LR230A	..-S	600	100	600	100
	10 Nm	NR24A	..-S	600	100	600	100
		NR230A	..-S	600	100	600	100
	20 Nm	SR24A	..-S	600	100	600	100
		SR230A	..-S	600	100	600	100

Very fast runners		Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
LRQ.. NRQ.. SRQ..	4 Nm	LRQ24A	600	100	600	100
	8 Nm	NRQ24A	600	100	600	100
	16 Nm	SRQ24A	600	100	600	100

Actuators with mechanical emergency control function		Actuator type NC without auxiliary switch	with 1 auxiliary switch	Actuator type NO without auxiliary switch	with 1 auxiliary switch	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
TRF..	2 Nm	TRF24	..-S	TRF24	..-O	600	100	600	100
		TRF230	..-S	TRF230	..-O	600	100	600	100
	4 Nm	TRF24	..-S	TRF24	..-O	600	100	600	100
		TRF230	..-S	TRF230	..-O	600	100	600	100

Actuators with mechanical emergency control function		Actuator type NC without auxiliary switch	with 2 auxiliary switches	Actuator type NO without auxiliary switch	with 2 auxiliary switches	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
LRF.. NRF.. SRF..	10 Nm	LRF24A	..-S2	LRF24A	..-S2-O	600	100	600	100
		NRF24A	..-S2	NRF24A	..-S2-O	600	100	600	100
	20 Nm	LRF24A	..-S2	LRF24A	..-S2-O	600	100	600	100
		NRF24A	..-S2	NRF24A	..-S2-O	600	100	600	100

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Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
600	100						
600	100						
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100
600	100	600	100	600	100	600	100



10



Potable water valves

DVGW, ACS and WRAS-certified open-close ball valves

Rotary valves	2-way	PN 10	DN 15–50	66
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Refer to the data sheets or notes
for project planning for further technical data to be observed.

DN 15-50



Range of use	Potable water
Potable water certificate	DVGW Registration Number: DW-6102CM0126 ACS Registration Number: 15 ACC LY 056 WRAS Registration Number: 1609315
Medium temperature	-5...65 °C (Occasional elevation up to 90°C permissible only for a maximum time period of 1 h)
Pipe connection	Internal thread Rp (ISO 7-1)
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators

	Nominal torque	Open-close	3-point	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Auxiliary switch SPDT	DN 15								
								k_{vs} [m³/h]	Valve type							
								28	EXT-R215-B3-PW							
Standard actuators																
NR.. SR..	10 Nm	•	•		24 V	90 s		NR24A	1000	1000						
					230 V			NR24A-S	1000	1000						
								NR230A ¹⁾	1000	1000						
								NR230A-S	1000	1000						
GR..	20 Nm	•	•		24 V	90 s		SR24A								
					230 V			SR24A-S								
								SR230A ¹⁾								
								SR230A-S								
	40 Nm	•	•		24 V	150 s		GR24A-5								
					230 V			GR230A-5								
								Actuators with emergency control function NC/NO								
								10 Nm	•	⊕		24 V	75 s	•	NRF24A	1000
NRF24A-O	1000	1000														
NRF24A-S2	1000	1000														
NRF24A-S2-O	1000	1000														
•	⊕		24...240 V AC 24...125 V DC	75 s	•	NRFA	1000		1000							
			NRFA-O			1000	1000									
			NRFA-S2			1000	1000									
			NRFA-S2-O			1000	1000									
20 Nm	•	⊕		24 V	75 s	•	SRF24A									
				SRF24A-O												
				SRF24A-S2												
				SRF24A-S2-O												
	•	⊕		24...240 V AC 24...125 V DC	75 s	•	SRFA									
				SRFA-O												
				SRFA-S2												
				SRFA-S2-O												
40 Nm	•	- -		24 V	150 s		GRK24A-5									

¹⁾ Actuators NR230A and SR230A are also available in fast runner version on request.

DN 20		DN 25		DN 32		DN 40		DN 50	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
42	EXT-R220-B3-PW	70	EXT-R225-B3-PW	80	EXT-R232-B4-PW	125	EXT-R240-B4-PW	179	EXT-R250-B5-PW
Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
								1000	1000
								1000	1000
Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
1000	1000	1000	1000						
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
				1000	1000	1000	1000		
								1000	1000

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Potable water valves

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Potable water valves

10

11

Open-close and change-over butterfly valves

Open-close and
change-over applications

Flange with: - Wafer type - Lug types	2-way	PN 6, 10, 16 / DN 25–300	70
		PN 10, 16 / DN 350–700	66
Flang with: - Lug type	3-way	PN 16 / DN 150–300	68

Refer to the data sheets or notes
for project planning for further technical data to be observed.



Valve Sizer App

You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.



PN 6, 10, 16 / DN 25–300

Range of use	Closed and open water circuit (pH > 7)
Pipe connection	Flange (ISO 7005-2 and EN 1092-2) D6..V/WL additionally: as per ISO 7005-1 and EN 1092-1
Medium temperature	-20...120 °C
Leakage rate	A, tight (EN 12266-1)
PN 6, 10, 16	DN 25–300 wafer types
PN 10, 16	DN 25–150 lug types
PN 16	DN 200–300

For Open-Close applications k_{vmax} [m³/h]



With wafer types

DN 25	DN 32	DN 40
50	55	65
Type AK D625N	Type AK D632N	Type AK D640N



With lug types

DN 25	DN 32	DN 40
Type AK D625NL	Type AK D632NL	Type AK D640NL

Suitable actuators

Nominal torque	Open-close 3-point	Terminal connection	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Auxiliary switch SPDT
20 Nm	•	•		24 V	90 s	
40 Nm	•			24 V	150 s	
<90 Nm	•			24 V	150 s	

Standard actuators

SR..	Nominal torque	Open-close 3-point	Terminal connection	Emergency control function	Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°	Auxiliary switch SPDT	Actuator type open-close / 3-point		Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}
								SR24A-5	SR230A-5	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]
SR..	20 Nm	•	•		24 V	90 s		SR24A-5	SR230A-5	1200	300	1200	300	1200	300
								GR24A-5	GR230A-5	1200	300	1200	300	1200	300
GR.. GRC..	40 Nm	•			24 V	150 s		DR24A-5	DR230A-5	1200	300	1200	300	1200	300
								DR24A-7	DR230A-7						

Fast runners

DR.. DRC..	Nominal torque	Open-close 3-point	Terminal connection	Emergency control function	Nominal voltage AC 24...240 V DC 24...125 V	Running time motor 35 s	Auxiliary switch SPDT	Actuator type open-close / 3-point		Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}
								GRC24A-5 ¹⁾	GRC230A-5 ¹⁾	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]
DR.. DRC..	40 Nm	•			24 V	35 s		GRC24A-5 ¹⁾	GRC230A-5 ¹⁾	1200	300	1200	300	1200	300
								DRC24A-5 ¹⁾	DRC230A-5 ¹⁾						

Actuators with emergency control function NC

SRF.. GRK.. DRK.. PRK..	Nominal torque	Open-close 3-point	Terminal connection	Emergency control function	Nominal voltage AC 24...240 V DC 24...125 V	Running time motor 35 s	Auxiliary switch SPDT	Actuator type NC		Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}
								SRF24A-5	SRF24A-S2-5	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]
SRF..	20 Nm	•	•	⊕	24 V	75 s	2	SRF24A-5 <td>SRF24A-S2-5 <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> </td>	SRF24A-S2-5 <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> <td>1200</td> <td>300</td>	1200	300	1200	300	1200	300
								SRFA-5 <td>SRFA-S2-5 <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> </td>	SRFA-S2-5 <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> <td>1200</td> <td>300</td>	1200	300	1200	300	1200	300
GRK..	40 Nm	•		⊕	24 V	150 s		GRK24A-5 <td>DRK24A-5 <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> </td>	DRK24A-5 <td>1200</td> <td>300</td> <td>1200</td> <td>300</td> <td>1200</td> <td>300</td>	1200	300	1200	300	1200	300
								DRK24A-7 <td>PRKCA-BAC-S2-T <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </td>	PRKCA-BAC-S2-T <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						

⊕ = actuators with mechanical emergency control function.

⊖ = actuators with electrical emergency control function. The emergency setting position NC/NO of all ⊖ actuators can be adjusted on the actuator.

¹⁾ These products are also available as IP66 variant with protective housing.

²⁾ (30...120 s variable)

³⁾ Adapter ZPR01

⁴⁾ Adapter ZPR03

DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
100	170	260	520	880	1400	2200	4200	5700
Type AK D650N	Type AK D665N	Type AK D680N	Type AK D6100N	Type AK D6125N	Type AK D6150N	Type AK D6200W	Type AK D6250W	Type AK D6300W

DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
Type AK D650NL	Type AK D665NL	Type AK D680NL	Type AK D6100NL	Type AK D6125NL	Type AK D6150NL	Type AK D6200WL	Type AK D6250WL	Type AK D6300WL

Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}
1200	300	1200	300																
1200	300	1200	300																
1200	300	1200	300	1200	300														
1200	300	1200	300	1200	300	1200	300												

Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}
1200	300	1200	300	1200	300														
1200	300	1200	300	1200	300														
				1200	300	1200	300												
				1200	300	1200	300	1200	300										

Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}
1200	300	1200	300	1200	300														
1200	300	1200	300	1200	300														
1200	300	1200	300	1200	300														
1200	300	1200	300	1200	300	1200	300	1200	300										

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PN 10, 16 / DN 350
PN 16 / DN 400–700

Range of use	Closed and open water circuit (pH > 7)
Pipe connection	Flange (ISO 7005-2 and EN 1092-2)
Medium temperature	-20...120 °C
Leakage rate	A, tight (EN 12266-1)
PN 16	DN 350–700

For Open-Close applications k_{vmax} [m³/h]



With wafer types

	DN 350	DN 400	DN 450
k_{vmax} [m³/h]	10900	14200	18800

Type AK	Type AK	Type AK
D6350N	D6400N	D6450N



With lug types

Type AK	Type AK	Type AK
D6350NL	D6400NL	D6450NL

Suitable actuators

Nominal torque	Open-close 3-point	Terminal connection	Nominal voltage AC 230V	Running time motor 90°	Auxiliary switch SPDT
650 Nm	•	•	230 V	31 s	2
1000 Nm	•	•	230 V	55 s	2
1500 Nm	•	•	230 V	55 s	2
2000 Nm	•	•	230 V	70 s	2
2500 Nm	•	•	230 V	70 s	2
3500 Nm	•	•	230 V	70 s	2



Fast runners

Actuator type open-close / 3-point	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
SY6-230-3-T	600	300	600 ²⁾	300		
SY7-230A-3-T	1200 ⁵⁾	300	1000 ³⁾	300	600 ⁴⁾	300
SY8-230A-3-T					1000 ⁴⁾	300
SY9-230A-3-T						
SY10-230A-3-T						
SY12-230A-3-T						

Actuator type open-close / 3-point

¹⁾ with 60% opening angle

²⁾ Adapter ZSY-401
³⁾ Adapter ZSY-701
⁴⁾ Adapter ZSY-702
⁵⁾ Adapter ZSY-703
⁶⁾ Adapter ZSY-901
⁷⁾ Adapter ZSY-902
⁸⁾ Adapter ZSY-903

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	DN 500	DN 600	DN 700
k_{vmax} [m³/h]	24100	37300	42800

Type AK	Type AK	Type AK
D6500N	D6600N	D6700N

Type AK	Type AK	Type AK
D6500N	D6600N	D6700N

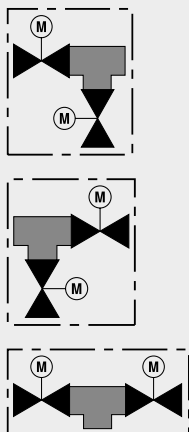
Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
600 ⁴⁾	300				
1000 ⁶⁾	300				
		600 ⁷⁾	300		
		1000 ⁷⁾	300	200 ⁸⁾	200

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Open-close and change-over butterfly valves

PN 16 / DN 150–300

Flange	In accordance with ISO 7005-2 and EN 1092-2 D7..WL/BAC additionally: as per ISO 7005-1 and EN 1092-1
Range of use	for change-over and control applications (mixing and diverting)
Medium temperature	-20...120 °C
Leakage rate	A, tight (EN 12266-1)
Communication	BACnet® MS/TP, Modbus RTU, MP-Bus® or conventional control
Control, opening angle limitation, running time and further functions are parameterisable with Belimo Assistant app	



DN	k_{vmax} [m³/h] ¹⁾	Open-close	modulating (2...10 V / 0.5...10 V)	Communication BACnet® MS/TP	Modbus RTU communication	MP-Bus® communication	Nominal voltage	Running time motor 90° ²⁾	Auxiliary switch SPDT	Degree of protection	Change-over butterfly valve with actuator type	Δp_s [kPa]	Δp_{max} [kPa]
With communicative actuators													
150	1100	•	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7150NL/BAC ³⁾	1200	300
200	1800	•	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7200WL/BAC ³⁾	1400	300
250	3000	•	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7250WL/BAC ³⁾	1400	300
300	4700	•	•	•	•	•	AC 24...240 V DC 24...125 V	35 s	4	IP66 IP67	D7300WL/BAC ³⁾	1400	300

¹⁾ For change-over applications:
- The maximum flow speed of 4 m/s may not be exceeded in the butterfly valve.
²⁾ (30...120 s variable)
³⁾ T-piece is not included in scope of delivery

Suitable T-pieces

	DN	Suitable for DK				Type
		D7150NL/BAC	D7200WL/BAC	D7250WL/BAC	D7300WL/BAC	
 <p>T-piece for 3-way butterfly valve Spheroidal cast iron with fastening screws</p>	150	•				ZD7150
	200		•			ZD7200
	250			•		ZD7250
	300				•	ZD7300

k_v The flow coefficient k_v [m^3/h] is the specific volume flow of a valve with a defined delay angle with reference to 100 kPa (1 bar). The k_v value changes, depending on the valve position. The flow coefficient is determined for a water temperature of 5...40 °C.

k_{vs} The k_v value in reference to the nominal delay angle is referred to as the k_{vs} value. The nominal delay angle defines the maximum valve opening and is specified by the manufacturer.

Characterised control valve (CCV): Flow coefficient at 100% valve opening (90° angle of rotation)
 Zone valve (QCV): Flow coefficient with corresponding position of the end stop clip (variable)
 Globe valves: Flow coefficient at 100% valve opening
 Butterfly valves: Flow coefficient at 60% valve opening for control application

$$k_{vs} = \frac{\dot{V}_{100}}{\sqrt{\frac{\Delta p_{v100}}{100}}}$$

Δp_{v100} [kPa]

\dot{V}_{100} [m^3/h]

k_{vs} [m^3/h]

k_{vmax} Flow coefficient for 100% opened butterfly valve for open-close and change-over application.

\dot{V}_{nom} Greatest possible flow rate of a pressure-independent valve, catalogue value, status upon delivery.

\dot{V}_{max} Maximum flow rate of a pressure-independent valve which has been set with the greatest positioning signal, e.g. 10V.

Δp_{max} Maximum permitted pressure difference for long service life across control gate A – AB, with reference to the whole opening range.

**Δp_{v100}
(R4..D(K))** Maximum permissible differential pressure for long service life with valve fully open.

**Δp_{v0}
(R4..D(K))** Maximum permissible differential pressure for long service life with closed valve.

Δp_s Maximum closing pressure at which the valve can still seal tightly, with reference to the particular leakage class.

In your vicinity – Everywhere



5-year warranty



On site around the globe



Complete product range



Tested quality



Short delivery times



Comprehensive Support

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