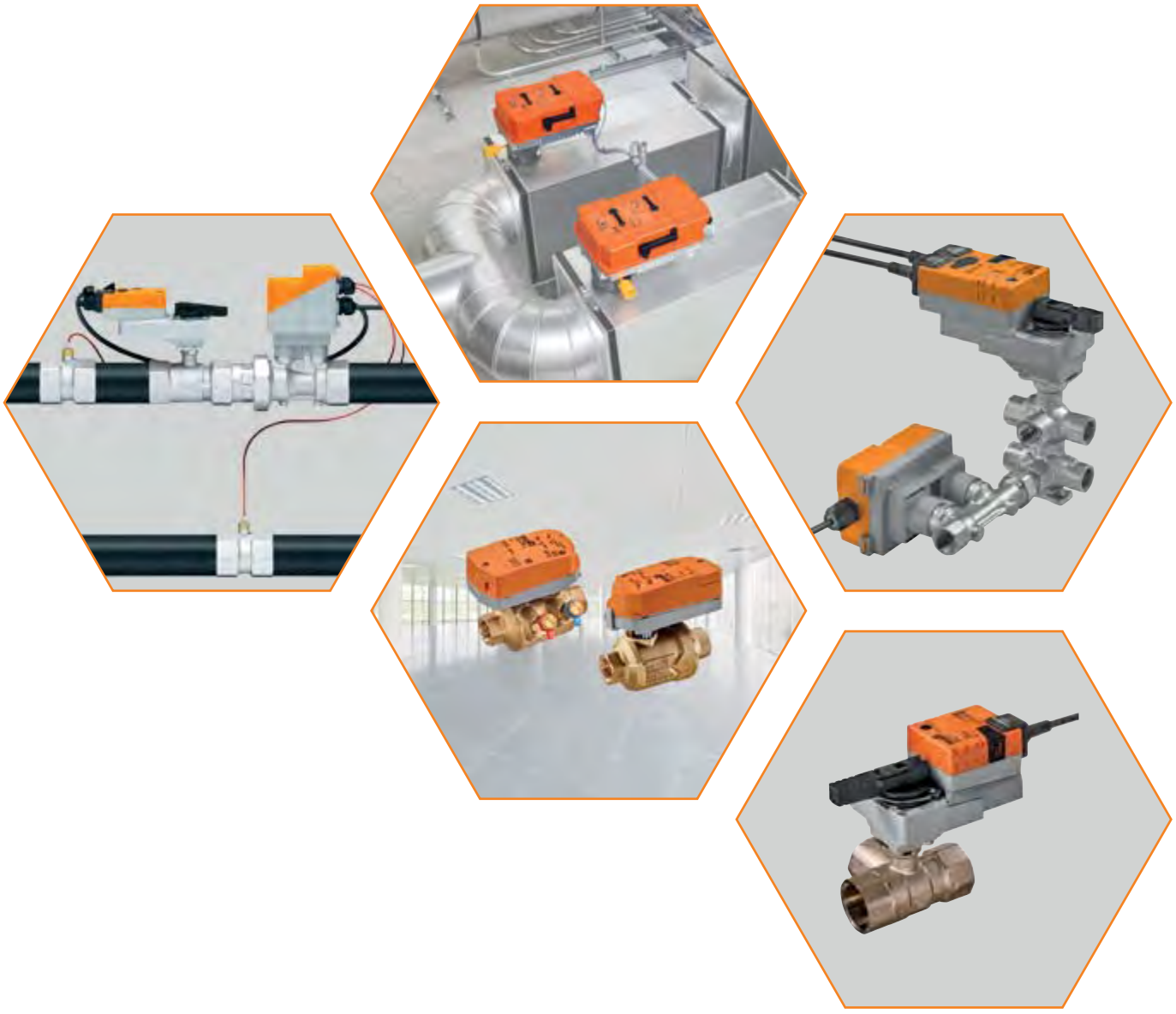
The complete product range for water applications

Edition 2019



BELIMO

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BELIMO
ZoneTight™

4

Zone valves

Maximum comfort, minimum consumption

2-way zone valve (QCV)	Internal thread	PN 16	DN 15/DN 20	4
3-way change-over ball valve (QCV)				5
2-way zone valve (QCV)	External thread			6
3-way change-over ball valve (QCV)				7
Pressure-independent characterised control valve (PIQCV)	Internal thread	PN 16	DN 15 – 25	8
Pressure-independent flow limiter valve (PIFLV)		PN 16	DN 15 – 25	9
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.

Download on the App Store

GET IT ON Google Play

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 Δp_s [kPa]	DN 15 Δp_{max} [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{max} [kPa]
									DN 15 k_{vs} [m³/h]	DN 15 Valve type	DN 20 k_{vs} [m³/h]	DN 20 Valve type
									0.09 – 1.2	C215Q-F	0.5 – 8	C220Q-K
									0.4 – 4.8	C215Q-J		
Standard actuators [1]												
1 Nm	•	•				24 V	75 s	CQ24A	350	280	350	280
			•					CQ24A-SR	350	280	350	280
	•	•				230 V	75 s	CQ230A	350	280	350	280
				•		24 V	75 s	CQ24A-MPL	350	280	350	280
Actuator with emergency control function NC [2]												
1 Nm	•				⊣⊢	24 V	75 s	CQK24A	350	280	350	280
			•					CQK24A-SR	350	280	350	280
	•				⊣⊢	230 V	75 s	CQK230A	350	280	350	280
Fast runners												
1 Nm	•	•				230 V	35 s	CQC230A	350	280	350	280
	•	•					15 s	CQD230A	350	280		
	•	•						CQD230A-20			350	280



CQ..



CQK..

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

Subject to technical modifications

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



CQ..



CQK..

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 k_{vs} [m³/h]	DN 15 Valve type	DN 20 k_{vs} [m³/h]	DN 20 Valve type
							2.5	C315Q-H	4	C320Q-J
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
Standard actuators [1]										
1 Nm	•	•		24 V	75 s	CQ24A	350	280	350	280
	•	•		230 V	75 s	CQ230A	350	280	350	280
Actuator with emergency control function NC [2]										
1 Nm	•		⊣⊢	24 V	75 s	CQK24A	350	280	350	280
	•		⊣⊢	230 V	75 s	CQK230A	350	280	350	280
Fast runners										
1 Nm	•	•		230 V	35 s	CQC230A	350	280	350	280
	•	•			15 s	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)
Flow characteristic	A-AB, equal percentage
Leakage rate	Leakage rate A, leak-proof (EN 12266-1)

Suitable actuators



CQ..



CQK..

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 k_{vs} [m³/h]	DN 15 Valve type	DN 20 k_{vs} [m³/h]	DN 20 Valve type
									0.4 – 4.5	C415Q-J	0.5 – 7.8	C420Q-K
									Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
Standard actuators [1]												
1 Nm	•	•				24 V	75 s	CQ24A	350	280	350	280
			•					CQ24A-SR	350	280	350	280
	•	•				230 V	75 s	CQ230A	350	280	350	280
				•		24 V	75 s	CQ24A-MPL	350	280	350	280
Actuator with emergency control function NC [2]												
1 Nm	•				⊣⊢	24 V	75 s	CQK24A	350	280	350	280
			•		⊣⊢			CQK24A-SR	350	280	350	280
	•				⊣⊢	230 V	75 s	CQK230A	350	280	350	280
Fast runners												
1 Nm	•	•				230 V	35 s	CQC230A	350	280	350	280
	•	•					15 s	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)

Subject to technical modifications

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



CQ..



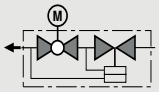
CQK..

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 k_{vs} [m³/h]	DN 15 Valve type	DN 20 k_{vs} [m³/h]	DN 20 Valve type
							2.3	C515Q-H	3.6	C520Q-J
							Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
Standard actuators [1]										
1 Nm	•	•		24 V	75 s	CQ24A	350	280	350	280
	•	•		230 V	75 s	CQ230A	350	280	350	280
Actuator with emergency control function NC [2]										
1 Nm	•		⊣⊢	24 V	75 s	CQK24A	350	280	350	280
	•		⊣⊢	230 V	75 s	CQK230A	350	280	350	280
Fast runners										
1 Nm	•	•		230 V	35 s	CQC230A	350	280	350	280
	•	•			15 s	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)

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

DN 15 – 25



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)



C2..QP-..



C2..QPT-..

Suitable actuators

DN 15		DN 20		DN 25	
V_{nom} [l/h]	Valve type	V_{nom} [l/h]	Valve type	V_{nom} [l/h]	Valve type
210	C215QP-B	980	C220QP-F	2100	C225QPT-G
	C215QPT-B		C220QPT-F		
420	C215QP-D				
	C215QPT-D				

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 Δp_s [kPa]	DN 15 Δp_{max} [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{max} [kPa]	DN 25 Δp_s [kPa]	DN 25 Δp_{max} [kPa]
Standard actuators [1]														
1 Nm	•	•				24 V	75 s	CQ24A	700	350	700	350	700	350
			•					CQ24A-SR	700	350	700	350	700	350
	•	•				230 V	75 s	CQ230A	700	350	700	350	700	350
				•		24 V	75 s	CQ24A-MPL	700	350	700	350	700	350
Actuator with emergency control function NC [2]														
1 Nm	•				⊣⊢	24 V	75 s	CQK24A	700	350	700	350	700	350
			•		⊣⊢			CQK24A-SR	700	350	700	350	700	350
	•				⊣⊢	230 V	75 s	CQK230A	700	350	700	350	700	350
Fast runners														
1 Nm	•	•				230 V	35 s	CQC230A	700	350	700	350	700	350
	•	•					15 s	CQD230A	700	350	700	350	700	350



CQ..

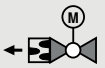


CQK..

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

Subject to technical modifications

DN 15 – 25



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	Δps: 520 kPa
Max. differential pressure	Δpmax: 280 kPa



C2..QFL-..



R225FL-..

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 Vnom [l/h]	DN 15 Valve type	DN 20 Vnom [l/h]	DN 20 Valve type	DN 25 Vnom [l/h]	DN 25 Valve type
								C215QFL-C		C220QFL-F6		
								C215QFL-D		C220QFL-G0		
								C215QFL-E		C220QFL-G		
								C215QFL-F0 [3]		C220QFL-H0		R225FL-H2 [3]
								C215QFL-F		C220QFL-H		R225FL-J
							Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
Standard actuators [1]												
1 Nm	•	•		24 V	75 s	CQ24A	700	350	700	350		
	•	•		230 V	75 s	CQ230A	700	350	700	350		
5 Nm	•	•		24 V	90 s	LR24A					700	350
	•	•		230 V	90 s	LR230A					700	350
Actuator with emergency control function NC [2]												
1 Nm	•		⊣⊢	24 V	75 s	CQK24A	700	350	700	350		
	•		⊣⊢	230 V	75 s	CQK230A	700	350	700	350		



CQ..

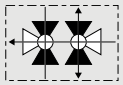


CQK..

[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

BELIMO

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		
k_{vs} [m³/h] Sequence I	k_{vs} [m³/h] Sequence II	Valve type	k_{vs} [m³/h] Sequence I	k_{vs} [m³/h] Sequence II	Valve type
0.25	0.25	R3015-P25-P25-B2			
	0.4	R3015-P25-P4-B2			
	0.63	R3015-P25-P63-B2			
	1	R3015-P25-1-B2			
	1.3	R3015-P25-1P3-B2			
	1.8	R3015-P25-1P8-B2			
0.4	0.25	R3015-P4-P25-B2			
	0.4	R3015-P4-P4-B2			
	0.63	R3015-P4-P63-B2			
	1	R3015-P4-1-B2			
	1.3	R3015-P4-1P3-B2			
	1.8	R3015-P4-1P8-B2			
0.63	0.25	R3015-P63-P25-B2			
	0.4	R3015-P63-P4-B2			
	0.63	R3015-P63-P63-B2			
	1	R3015-P63-1-B2		1.6	R3020-P63-1P6-B2
	1.3	R3015-P63-1P3-B2	0.63	2.5	R3020-P63-2P5-B2
	1.8	R3015-P64-1P8-B2		4	R3020-P63-4-B2
1	0.25	R3015-1-P25-B2		1.6	R3020-1-1P6-B2
	0.4	R3015-1-P4-B2	1	2.5	R3020-1-2P5-B2
	0.63	R3015-1-P63-B2		4	R3020-1-4-B2
	1	R3015-1-1-B2		0.63	R3020-1P6-P63-B2
	1.3	R3015-1-1P3-B2		1	R3020-1P6-1-B2
	1.8	R3015-1-1P8-B2	1.6	1.6	R3020-1P6-1P6-B2
1.3	0.25	R3015-1P3-P25-B2		2.5	R3020-1P6-2P5-B2
	0.4	R3015-1P3-P4-B2		4	R3020-1P6-4-B2
	0.63	R3015-1P3-P63-B2		0.63	R3020-2P5-P63-B2
	1	R3015-1P3-1-B2		1	R3020-2P5-1-B2
	1.3	R3015-1P3-1P3-B2	2.5	1.6	R3020-2P5-1P6-B2
	1.8	R3015-1P3-1P8-B2		2.5	R3020-2P5-2P5-B2
1.8	0.25	R3015-1P8-P25-B2		4	R3020-2P5-4-B2
	0.4	R3015-1P8-P4-B2		0.63	R3020-4-P63-B2
	0.63	R3015-1P8-P63-B2		1	R3020-4-1-B2
	1	R3015-1P8-1-B2	4	1.6	R3020-4-1P6-B2
	1.3	R3015-1P8-1P3-B2		2.5	R3020-4-2P5-B2
	1.8	R3015-1P8-1P8-B2		4	R3020-4-4-B2

Suitable actuators



LR..

Nominal torque	Modulating (2...10 V)	Modulating (2...10 V, variable)	MP-Bus® communication [1]	Nominal voltage 24 V AC/DC	Running time motor 90°	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
5 Nm	•			24 V	90 s	LR24A-SR	350	100	350	100
		•	•			LR24A-MP	350	100	350	100

Suitable actuators



NR..

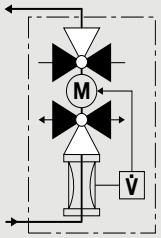
Nominal torque	Modulating (2...10 V)	Modulating (2...10 V, variable)	Communication MP-Bus®	Nominal voltage AC/DC 24 V	Running time motor 90°	Actuator type	DN 25 kvs [m3/h] Sequence I	DN 25 kvs [m3/h] Sequence II	DN 25 Valve type
							6.3	6.3	R3025-6P3-6P3-B3
							Δp_s [kPa]		Δp_{max} [kPa]
10 Nm	•			24 V	90 s	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.

Subject to technical modifications

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)
Vmax	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

Subject to technical modifications



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

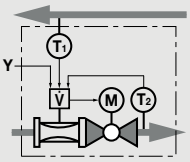
You can easily find the suitable valve and the right actuator for your application with the convenient App for valve design. Install the App via "AppStore" or "Google Play". The QR codes take you there directly.

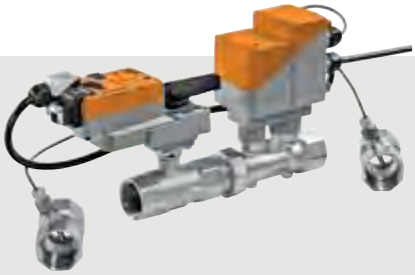
Download on the App Store

GET IT ON Google Play

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	





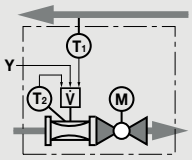
BELIMO CLOUD

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 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	





BELIMO CLOUD

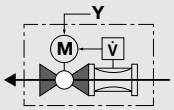
DN	V_{nom}	V_{nom}	Nominal voltage AC/DC 24 V	Modulating (2... 10 V, variable)	MP-Bus® communication	Communication BACnet®	Modbus communication	Glycol monitoring [1]	Valve type with actuator	Δp_s [kPa]	Δp_{max} [kPa]
With standard actuator											
65	8 l/s	480 l/min	24 V	•	•	•	•		P6065W800EV-BAC	690	340
				•	•	•	•		EV065F+BAC [2]	690	340
				•	•	•	•	•	EV065F+BAC1 [2]	690	340
80	11 l/s	660 l/min	24 V	•	•	•	•		P6080W1100EV-BAC	690	340
				•	•	•	•		EV080F+BAC [2]	690	340
				•	•	•	•	•	EV080F+BAC1 [2]	690	340
100	20 l/s	1200 l/min	24 V	•	•	•	•		P6100W2000EV-BAC	690	340
				•	•	•	•		EV100F+BAC [2]	690	340
				•	•	•	•	•	EV100F+BAC1 [2]	690	340
125	31 l/s	1860 l/min	24 V	•	•	•	•		P6125W3100EV-BAC	690	340
				•	•	•	•		EV125F+BAC [2]	690	340
				•	•	•	•	•	EV125F+BAC1 [2]	690	340
150	45 l/s	2700 l/min	24 V	•	•	•	•		P6150W4500EV-BAC	690	340
				•	•	•	•		EV150F+BAC [2]	690	340
				•	•	•	•	•	EV150F+BAC1 [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
				•	•	•	•	•	EV065F+KBAC1 [2]	690	340
80	11 l/s	660 l/min	24 V	•	•	•	•		P6080W1100EV-KBAC	690	340
				•	•	•	•		EV080F+KBAC [2]	690	340
				•	•	•	•	•	EV080F+KBAC1 [2]	690	340
100	20 l/s	1200 l/min	24 V	•	•	•	•		P6100W2000EV-KBAC	690	340
				•	•	•	•		EV100F+KBAC [2]	690	340
				•	•	•	•	•	EV100F+KBAC1 [2]	690	340
125	31 l/s	1860 l/min	24 V	•	•	•	•		P6125W3100EV-KBAC	690	340
				•	•	•	•		EV125F+KBAC [2]	690	340
				•	•	•	•	•	EV125F+KBAC1 [2]	690	340
150	45 l/s	2700 l/min	24 V	•	•	•	•		P6150W4500EV-KBAC	690	340
				•	•	•	•		EV150F+KBAC [2]	690	340
				•	•	•	•	•	EV150F+KBAC1 [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.



DN 15 – 50



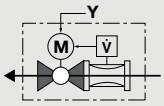
Range of use	Closed water circuit (pH > 7)
Medium temperature	–10...120 °C
Pipe connection	Internal thread Rp (ISO 7-1)
Flow characteristic	Equal percentage (acc. to VDI/VDE 2178) Can be switched to linear
Leakage rate	A, air bubble tight (EN 12266-1)
V_{max}	Freely adjustable 30... 100% of V_{nom}
Control, 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

Subject to technical modifications

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 3-way	PN 16	DN 15 – 50	20
External thread	2-way 3-way	PN 16	DN 10 – 50	22
Flange	2-way 3-way	PN 6	DN 15 – 50	24
	2-way	PN 16	DN 65 – 150	26
External thread	2-way / 130 °C	PN 25	DN 10 – 20	28

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

BELIMO

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.

Download on the App Store

GET IT ON Google Play

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



Closed and open water circuit (pH >7)

2-way

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



Closed water circuit (pH >7)

3-way

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

Suitable actuators

Small and compact actuators



TR..
TRY..

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	Actuator type	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
2 Nm	•	•			24 V	100 s		TR24 2)	1400	350		
		•			230 V	105 s		TR230-3 2)	1400	350		
			•		24 V	90 s		TR24-SR 2)	1400	350		
			•		24 V	35 s		TRY24-SR 2)	1400	350		

Standard actuators



LR..
NR..
SR..

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	Actuator type without auxiliary switch	with auxiliary switch	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
5 Nm	•	•			24 V			LR24A	..-S	1400	350	1400	350
	•	•			230 V	90 s		LR230A	..-S	1400	350	1400	350
			•		24 V			LR24A-SR		1400	350	1400	350
10 Nm	•	•			24 V			NR24A	..-S	1400	350	1400	350
	•	•			230 V	90 s		NR230A	..-S	1400	350	1400	350
			•		24 V			NR24A-SR		1400	350	1400	350
20 Nm	•	•			24 V			SR24A	..-S	1400	350	1400	350
	•	•			230 V	90 s		SR230A	..-S	1400	350	1400	350
			•		24 V			SR24A-SR		1400	350	1400	350

Fast runners and very fast runners



TRC..
LRC..
NRC..
SRC..



TRF..

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	Actuator type	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
2 Nm			•		24 V	15 s		TRC24A-SR	1400	350		
5 Nm			•		24 V	35 s		LRC24A-SR	1400	350	1400	350
10 Nm			•		24 V	45 s		NRC24A-SR	1400	350	1400	350
20 Nm			•		24 V	35 s		SRC24A-SR	1400	350	1400	350

Actuators with mechanical emergency control function



LRF..



NRF..
SRF..

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	Actuator type NC without auxiliary switch	Actuator type NC with 2 auxiliary switches	Actuator type NO without auxiliary switch	Actuator type NO with 2 auxiliary switches	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
2 Nm			•	⟲	24 V	90 s	<25 s	TRF24-SR 2)		..-O		1400	350		
4 Nm			•	⟲	24 V	150 s	<20 s	LRF24-SR 2)				1400	350	1400	350
10 Nm			•	⟲	24 V	90 s	<20 s	NRF24A-SR	..-S2	..-O	..-S2-O	1400	350	1400	350
20 Nm			•	⟲	24 V	90 s	<20 s	SRF24A-SR	..-S2	..-O	..-S2-O	1400	350	1400	350

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

Continued next page

Subject to technical modifications

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								
10	R2025-10-S2	16	R2032-16-S3	16	R2040-16-S3			25	R2050-25-S4
16	R2025-16-S2			25	R2040-25-S3			40	R2050-40-S4
k_{vs} [m³/h]	Valve type							k_{vs} [m³/h]	Valve type
6.3	R3025-6P3-S2	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	25	R3050-25-S4
10	R3025-10-S2	16	R3032-16-S3	16	R3040-16-S3	25	R3040-25-S4	40	R3050-40-S4
								58	R3050-58-S4

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]	Δp_s [kPa]	Δp_{max} [1)] [kPa]	Δp_s [kPa]	Δp_{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

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	350								
1400	350	1400	350	1400	350				
1400	350	1400	350	1400	350	1400	350	1400	350

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	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

DN 10 k_{VS} [m³/h]	DN 10 Valve type	DN 15 k_{VS} [m³/h]	DN 15 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



Closed and open water circuit (pH >7)

3-way

DN 10 k_{VS} [m³/h]	DN 10 Valve type	DN 15 k_{VS} [m³/h]	DN 15 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

Small and compact actuators



TR..
TRY..

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
2 Nm	•	•			24 V	100 s		TR24	1400	200	1400	200
		•			230 V	105 s		TR230-3	1400	200	1400	200
			•		24 V	90 s		TR24-SR	1400	200	1400	200
			•		24 V	35 s		TRY24-SR	1400	200	1400	200

Standard actuators



LR..
NR..
SR..

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	Actuator type without auxiliary switch	with auxiliary switch	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
5 Nm	•	•			24 V	90 s		LR24A	..-S	1400	200	1400	200
	•	•			230 V			LR230A	..-S	1400	200	1400	200
			•		24 V			LR24A-SR		1400	200	1400	200
10 Nm	•	•			24 V	90 s		NR24A	..-S	1400	200	1400	200
	•	•			230 V			NR230A	..-S	1400	200	1400	200
			•		24 V			NR24A-SR		1400	200	1400	200
20 Nm	•	•			24 V	90 s		SR24A	..-S	1400	200	1400	200
	•	•			230 V			SR230A	..-S	1400	200	1400	200
			•		24 V			SR24A-SR		1400	200	1400	200

Continued next page

Fast runners and very fast runners



TRC..
LRC..
NRC..
SRC..

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
2 Nm			•		24 V	15 s		TRC24A-SR	1400	200	1400	200
5 Nm			•		24 V	35 s		LRC24A-SR	1400	200	1400	200
10 Nm			•		24 V	45 s		NRC24A-SR	1400	200	1400	200
20 Nm			•		24 V	35 s		SRC24A-SR	1400	200	1400	200



TRF..



LRF..



NRF..
SRF..

Actuators with mechanical emergency control function

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	Actuator type NC without auxiliary switch	Actuator type NC with 2 auxiliary switches	Actuator type NO without auxiliary switch	Actuator type NO with 2 auxiliary switches	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
2 Nm			•		24 V	90 s	<25 s	TRF24-SR		..-O		1400	200	1400	200
4 Nm			•		24 V	150 s	<20 s	LRF24-SR				1400	200	1400	200
10 Nm			•		24 V	90 s	<20 s	NRF24A-SR	..-S2	..-O	..-S2-O	1400	200	1400	200
20 Nm			•		24 V	90 s	<20 s	SRF24A-SR	..-S2	..-O	..-S2-O	1400	200	1400	200

Subject to technical modifications

Continued from previous page

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

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

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

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

DN 15		DN 20	
k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
0.63	R6015RP63-B1		
1	R6015R1-B1		
1.6	R6015R1P6-B1		
2.5	R6015R2P5-B1		
4	R6015R4-B1	6.3	R6020R6P3-B1



Closed water circuit (pH >7)

3-way

DN 15		DN 20	
k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
0.63	R7015RP63-B1		
1.6	R7015R1P6-B1		
4	R7015R4-B1	6.3	R7020R6P3-B1

Suitable actuators

Small and compact actuators



TR..
TRY..

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
2 Nm	•	•			24 V	100 s		TR24	600	100	600	100
		•			230 V	105 s		TR230-3	600	100	600	100
			•		24 V	90 s		TR24-SR	600	100	600	100
			•		24 V	35 s		TRY24-SR	600	100	600	100

Standard actuators



LR..
NR..
SR..

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	Actuator type without auxiliary switch	with auxiliary switch	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
5 Nm	•	•			24 V	90 s		LR24A	..-S	600	100	600	100
	•	•			230 V			LR230A	..-S	600	100	600	100
			•		24 V			LR24A-SR		600	100	600	100
10 Nm	•	•			24 V	90 s		NR24A	..-S	600	100	600	100
	•	•			230 V			NR230A	..-S	600	100	600	100
			•		24 V			NR24A-SR		600	100	600	100
20 Nm	•	•			24 V	90 s		SR24A	..-S	600	100	600	100
	•	•			230 V			SR230A	..-S	600	100	600	100
			•		24 V			SR24A-SR		600	100	600	100

Fast runners and very fast runners



TRC..
LRC..
NRC..
SRC..



TRF..

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
2 Nm			•		24 V	15 s		TRC24A-SR	600	100	600	100
5 Nm			•		24 V	35 s		LRC24A-SR	600	100	600	100
10 Nm			•		24 V	45 s		NRC24A-SR	600	100	600	100
20 Nm			•		24 V	35 s		SRC24A-SR	600	100	600	100

Actuators with mechanical emergency control function



LRF..



NRF..
SRF..

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	Actuator type NC without auxiliary switch	Actuator type NC with 2 auxiliary switches	Actuator type NO without auxiliary switch	Actuator type NO with 2 auxiliary switches	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
2 Nm			•	◎	24 V	90 s	<25 s	TRF24-SR		..-O		600	100	600	100
4 Nm			•	◎	24 V	150 s	<20 s	LRF24-SR				600	100	600	100
10 Nm			•	◎	24 V	90 s	<20 s	NRF24A-SR	..-S2	..-O	..-S2-O	600	100	600	100
20 Nm			•	◎	24 V	90 s	<20 s	SRF24A-SR	..-S2	..-O	..-S2-O	600	100	600	100

Continued next page

Subject to technical modifications

Continued from previous page

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	R6025R10-B2	16	R6032R16-B3	25	R6040R25-B3	40	R6050R40-B3
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	R7025R10-B2	16	R7032R16-B3	16	R7040R16-B3	25	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]

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

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

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

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



Closed water circuit (pH >7)

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

Standard 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	Actuator type	Δp_s [kPa]	Δp_{max} [1] [kPa]	Δp_s [kPa]	Δp_{max} [1] [kPa]
20 Nm	•	•			24 V	90 s			SR24A-5	690	400	690	400
	•	•			230 V				SR230A-5	690	400	690	400
			•		24 V				SR24A-SR-5	690	400	690	400
			•		230 V				SR230A-SR-5	690	400	690	400
	•				24 V	90 s			SR24P-5	690	400	690	400
	•				230 V				SR230P-5	690	400	690	400
			•		24 V				SR24P-SR-5	690	400	690	400
			•		230 V				SR230P-SR-5	690	400	690	400
40 Nm	•	•			24 V	150 s			GR24A-5	690	400	690	400
	•	•			230 V				GR230A-5	690	400	690	400
			•		24 V				GR24A-SR-5	690	400	690	400

Fast runners

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
20 Nm			•		24 V	35 s			SRC24A-SR-5	690	400	690	400

Actuators with emergency control function NC/NO

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	Actuator type NC	NO	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
20 Nm	•			⟲	24 V	<75 s	<20 s		SRF24A-5	..-O	690	400	690	400
	•			⟲				2	SRF24A-S2-5	..-O				
	•			⟲	230 V				SRFA-5	..-O	690	400	690	400
	•			⟲				2	SRFA-S2-5	..-O				
			•	⟲	24 V	90 s	<20 s		SRF24A-SR-5	..-O	690	400	690	400
			•	⟲				2	SRF24A-SR-S2-5	..-O				
40 Nm	•			⊣⊢	24 V	150 s			GRK24A-5		690	400	690	400
			•	⊣⊢					GRK24A-SR-5		690	400	690	400

⟲ = 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] Low-noise operation Δp_{max} = 200 kPa.

Continued next page

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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

Δp_s [kPa]	Δp_{max} [1] [kPa]	Δp_s [kPa]	Δp_{max} [1] [kPa]	Δp_s [kPa]	Δp_{max} [1] [kPa]
690	400	690	400	690	400
690	400	690	400	690	400
690	400	690	400	690	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]
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



Closed and open water circuit (pH >7)

2-way

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



LR..

Standard 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	Actuator type	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]
5 Nm	•	•			24 V	90 s		LR24A	1400	400	800	1400	400	800	1400	400	800
	•	•			230 V			LR230A	1400	400	800	1400	400	800	1400	400	800
			•		24 V			LR24A-SR	1400	400	800	1400	400	800	1400	400	800



LRC..

Fast runners and very fast runners

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	Actuator type	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]
5 Nm			•		24 V	35 s		LRC24A-SR	1400	400	800	1400	400	800	1400	400	800



LRF..

Actuators with emergency control function NC

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	Actuator type	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [kPa]	Δp_s [kPa]	Δp_{v100} [kPa]	Δp_{v0} [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.

Subject to technical modifications



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

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

BELIMO

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.

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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. %



Closed and open water circuit (pH >7)

2-way

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



Closed and open water circuit (pH >7)

3-way

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

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
Standard actuators																					
500 N	150 s		•	•				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



LV..
NV..
SV..

Fast runners																					
500 N	35 s				•			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



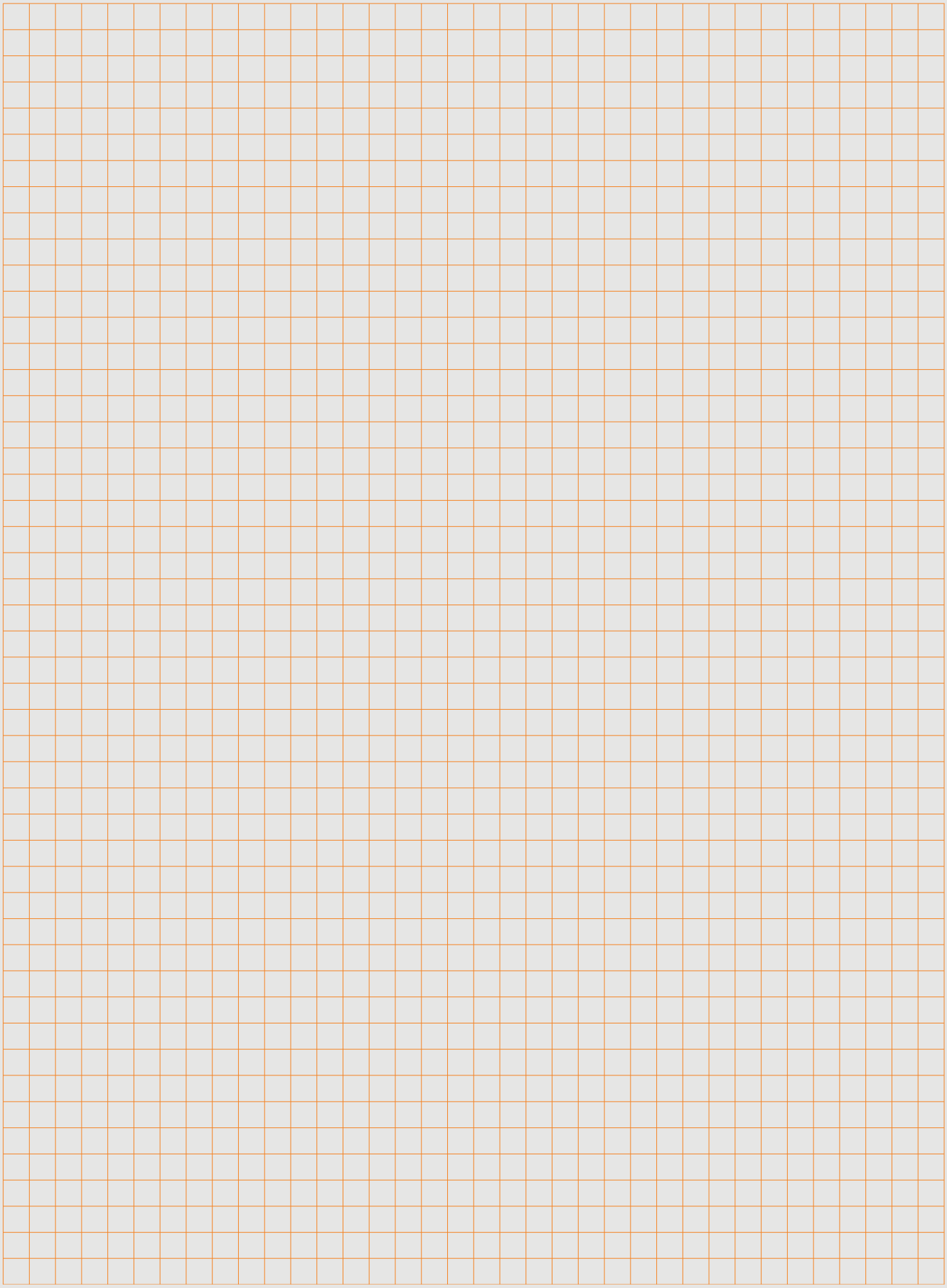
LVC..
NVC..
SVC..

Actuators with electrical emergency control function [2]																					
1000 N	150 s	35 s		•			⊣⊢	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
	35 s	35 s			•		⊣⊢	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



NVK..
NVKC..

[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 ⊣⊢ 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		
1	H612R		
1.6	H613R		
2.5	H614R		
4	H615R	6.3	H620R



Closed cold and hot water systems

3-way

DN 15		DN 20	
k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
0.63	H711R		
1	H712R		
1.6	H713R		
2.5	H714R		
4	H715R	6.3	H720R

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
Standard actuators														
 LV.. NV.. SV..	500 N	150 s		•	•				24 V	LV24A-TPC	600	400	600	400
				•	•				230 V	LV230A-TPC	600	400	600	400
						•			24 V	LV24A-SR-TPC	600	400	600	400
						•	•		24 V	LV24A-MP-TPC	600	400	600	400
 EV.. RV..	1000 N	150 s		•	•				24 V	NV24A-TPC	600	400	600	400
				•	•				230 V	NV230A-TPC	600	400	600	400
						•			24 V	NV24A-SR-TPC	600	400	600	400
						•	•		24 V	NV24A-MP-TPC	600	400	600	400
	1500 N	150 s		•	•				24 V	SV24A-TPC	600	400	600	400
				•	•				230 V	SV230A-TPC	600	400	600	400
						•			24 V	SV24A-SR-TPC	600	400	600	400
						•	•		24 V	SV24A-MP-TPC	600	400	600	400
 LVC.. NVC.. SVC..	2500 N	150 s		•	•				24 V	EV24A-TPC				
				•	•				230 V	EV230A-TPC				
						•			24 V	EV24A-SR-TPC				
						•	•		24 V	EV24A-MP-TPC				
	4500 N	120 s				•			24 V	RV24A-SR				
Fast runners										Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 EVC..	500 N	35 s				•			24 V	LVC24A-SR-TPC	600	400	600	400
						•	•		24 V	LVC24A-MP-TPC	600	400	600	400
	1000 N	35 s				•			24 V	NVC24A-SR-TPC	600	400	600	400
							•		24 V	NVC24A-MP-TPC	600	400	600	400
	1500 N	35 s				•			24 V	SVC24A-SR-TPC	600	400	600	400
						•	•		24 V	SVC24A-MP-TPC	600	400	600	400
	2500 N	35 s				•			24 V	EVC24A-SR				
Actuators with electrical emergency control function [2]										Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 NVK.. NVKC..	1000 N	150 s	35 s		•			⊣⊢	24 V	NVK24A-3-TPC [3]	600	400	600	400
					•			⊣⊢	230 V	NVK230A-3	600	400	600	400
						•		⊣⊢	24 V	NVK24A-SR-TPC	600	400	600	400
						•	•	⊣⊢	24 V	NVK24A-MP-TPC	600	400	600	400
		35 s	35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	600	400	600	400
						•	•	⊣⊢	24 V	NVKC24A-MP-TPC	600	400	600	400
 AVK..	2000 N	150 s	35 s		•			⊣⊢	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 ⊣⊢ 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

Continued next page

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

Continued from previous page

DN 15 – 150

Pipe connection	Flange PN 16 (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		DN 25	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.63	H611N				
1	H612N				
1.6	H613N				
2.5	H614N	6.3	H620N	10	H625N
4	H615N				



Closed cold and hot water systems

3-way

DN 15		DN 20		DN 25	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
0.63	H711N				
1	H712N				
1.6	H713N				
2.5	H714N	6.3	H720N	10	H725N
4	H715N				

Suitable actuators

Standard 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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
500 N	150 s		•	•				24 V	LV24A-TPC	1300	400	900	400	500	400
			•	•				230 V	LV230A-TPC	1300	400	900	400	500	400
					•			24 V	LV24A-SR-TPC	1300	400	900	400	500	400
					•	•		24 V	LV24A-MP-TPC	1300	400	900	400	500	400
1000 N	150 s		•	•				24 V	NV24A-TPC	1600	400	1600	400	1300	400
			•	•				230 V	NV230A-TPC	1600	400	1600	400	1300	400
					•			24 V	NV24A-SR-TPC	1600	400	1600	400	1300	400
					•	•		24 V	NV24A-MP-TPC	1600	400	1600	400	1300	400
1500 N	150 s		•	•				24 V	SV24A-TPC	1600	400	1600	400	1600	400
			•	•				230 V	SV230A-TPC	1600	400	1600	400	1600	400
					•			24 V	SV24A-SR-TPC	1600	400	1600	400	1600	400
					•	•		24 V	SV24A-MP-TPC	1600	400	1600	400	1600	400
2500 N	150 s		•	•				24 V	EV24A-TPC						
			•	•				230 V	EV230A-TPC						
					•			24 V	EV24A-SR-TPC						
					•	•		24 V	EV24A-MP-TPC						
4500 N	120 s				•			24 V	RV24A-SR						



LV..
NV..
SV..



EV..
RV..



LVC..
NVC..
SVC..

Fast runners

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
500 N	35 s				•			24 V	LVC24A-SR-TPC	1300	400	900	400	500	400
					•	•		24 V	LVC24A-MP-TPC	1300	400	900	400	500	400
1000 N	35 s				•			24 V	NVC24A-SR-TPC	1600	400	1600	400	1300	400
					•	•		24 V	NVC24A-MP-TPC	1600	400	1600	400	1300	400
1500 N	35 s				•			24 V	SVC24A-SR-TPC	1600	400	1600	400	1600	400
					•	•		24 V	SVC24A-MP-TPC	1600	400	1600	400	1600	400
2500 N	35 s				•			24 V	EVC24A-SR						



EVC..

Actuators with electrical emergency control function [2]

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	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		•			⊣⊢	24 V	NVK24A-3-TPC [3]	1600	400	1600	400	1300	400
				•			⊣⊢	230 V	NVK230A-3	1600	400	1600	400	1300	400
					•		⊣⊢	24 V	NVK24A-SR-TPC	1600	400	1600	400	1300	400
					•	•	⊣⊢	24 V	NVK24A-MP-TPC	1600	400	1600	400	1300	400
	35 s	35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	1600	400	1600	400	1300	400
					•	•	⊣⊢	24 V	NVKC24A-MP-TPC	1600	400	1600	400	1300	400
2000 N	150 s	35 s		•			⊣⊢	24 V	AVK24A-3-TPC [3]						
				•			⊣⊢	230 V	AVK230A-3						
					•		⊣⊢	24 V	AVK24A-SR-TPC						
					•	•	⊣⊢	24 V	AVK24A-MP-TPC						



NVK..
NVKC..



AVK..

[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 ⊣⊢ actuators can be adjusted on the actuator. Delivery state: actuator spindle retracted. Closing point of the globe valves H..N is at top (valve stem extended).
[3] Nominal voltage AC 24 V

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Subject to technical modifications

DN 32		DN 40		DN 50		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	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type				
16	H632N	25	H640N	40	H650N	58	H664N	63	H665N	90	H679N	100	H680N	145	H6100N				
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	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
16	H732N	25	H740N	40	H750N	58	H764N	63	H765N	90	H779N	100	H780N	145	H7100N	220	H7125N	320	H7150N

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]	Δp_s [kPa]	Δp_{max} [kPa]
350	350	150	150	70	70														
350	350	150	150	70	70														
350	350	150	150	70	70														
350	350	150	150	70	70														
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1600	400	900	400	550	400	280	280			160	160								
1600	400	900	400	550	400	280	280			160	160								
1600	400	900	400	550	400	280	280			160	160								
1600	400	900	400	550	400	280	280			160	160								
								550	400			350	350	200	200	130	130	80	80
								550	400			350	350	200	200	130	130	80	80
								550	400			350	350	200	200	130	130	80	80
								550	400			350	350	200	200	130	130	80	80
								1100	400			700	400	450	400	290	290	190	190

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]	Δp_s [kPa]	Δp_{max} [kPa]
350	350	150	150	70	70														
350	350	150	150	70	70														
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1600	400	900	400	550	400	280	280			160	160								
1600	400	900	400	550	400	280	280			160	160								
								550	400			350	350	200	200	130	130	80	80

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]	Δp_s [kPa]	Δp_{max} [kPa]
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
1000	400	500	400	300	300	140	140			80	80								
								400	400			250	250	150	150				
								400	400			250	250	150	150				
								400	400			250	250	150	150				
								400	400			250	250	150	150				

Continued from previous page

DN 15 – 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 / 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	For closed hot water and steam systems (Δp/p1 < 0.4), water with glycol up to max. 50 vol. %



Closed hot water and steam systems
in the non-critical range

2-way

DN 15				DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
		1	H612S		
		1.6	H613S		
0.4	H610S	2.5	H614S	4	H619S
0.63	H611S	4	H615S	6.3	H620S



Closed hot water and steam systems
in the non-critical range

3-way

DN 15		DN 20	
k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
4	H715S	6.3	H720S

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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
Standard actuators																
 LV.. NV.. SV..	500 N	150 s		•	•				24 V	LV24A-TPC [2]	1600	1000	800	800	800	800
				•	•				230 V	LV230A-TPC [2]	1600	1000	800	800	800	800
						•			24 V	LV24A-SR-TPC [2]	1600	1000	800	800	800	800
						•	•		24 V	LV24A-MP-TPC [2]	1600	1000	800	800	800	800
 EV.. RV..	1000 N	150 s		•	•				24 V	NV24A-TPC	1600	1000	1600	1000	1600	1000
				•	•				230 V	NV230A-TPC	1600	1000	1600	1000	1600	1000
						•			24 V	NV24A-SR-TPC	1600	1000	1600	1000	1600	1000
						•	•		24 V	NV24A-MP-TPC	1600	1000	1600	1000	1600	1000
	1500 N	150 s		•	•				24 V	SV24A-TPC	1600	1000	1600	1000	1600	1000
				•	•				230 V	SV230A-TPC	1600	1000	1600	1000	1600	1000
						•			24 V	SV24A-SR-TPC	1600	1000	1600	1000	1600	1000
						•	•		24 V	SV24A-MP-TPC	1600	1000	1600	1000	1600	1000
 LVC.. NVC.. SVC..	2500 N	150 s		•	•				24 V	EV24A-TPC						
				•	•				230 V	EV230A-TPC						
						•			24 V	EV24A-SR-TPC						
						•	•		24 V	EV24A-MP-TPC						
	4500 N	120 s				•			24 V	RV24A-SR						
Fast runners																
 EVC..	500 N	35 s				•			24 V	LVC24A-SR-TPC [2]	1600	1000	800	800	800	800
						•	•		24 V	LVC24A-MP-TPC [2]	1600	1000	800	800	800	800
	1000 N	35 s				•			24 V	NVC24A-SR-TPC	1600	1000	1600	1000	1600	1000
						•	•		24 V	NVC24A-MP-TPC	1600	1000	1600	1000	1600	1000
	1500 N	35 s				•			24 V	SVC24A-SR-TPC	1600	1000	1600	1000	1600	1000
						•	•		24 V	SVC24A-MP-TPC	1600	1000	1600	1000	1600	1000
	2500 N	35 s				•			24 V	EVC24A-SR						
Actuators with electrical emergency control function [3]																
 NVK.. NVKC..	1000 N	150 s	35 s		•			⊣⊢	24 V	NVK24A-3-TPC [4]	1600	1000	1600	1000	1600	1000
					•			⊣⊢	230 V	NVK230A-3	1600	1000	1600	1000	1600	1000
						•		⊣⊢	24 V	NVK24A-SR-TPC	1600	1000	1600	1000	1600	1000
						•	•	⊣⊢	24 V	NVK24A-MP-TPC	1600	1000	1600	1000	1600	1000
		35 s	35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	1600	1000	1600	1000	1600	1000
						•	•	⊣⊢	24 V	NVKC24A-MP-TPC	1600	1000	1600	1000	1600	1000
 AVK..	2000 N	150 s	35 s		•			⊣⊢	24 V	AVK24A-3-TPC [4]						
					•			⊣⊢	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] For DN 15 only recommended with H610S and H611S.
[3] The emergency setting position NC/NO of all ⊣⊢ actuators can be adjusted on the actuator. Delivery state: actuator spindle retracted. Closing point of the globe valves H6..S is at bottom (valve stem retracted).
[4] Nominal voltage AC 24 V

Globe valves
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Continued next page

DN 25		DN 32		DN 40		DN 50		DN 65		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	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
6.3	H624S																		
10	H625S	16	H632S	25	H640S	40	H650S	58	H664S	63	H665S	100	H680S	145	H6100S	220	H6125S	320	H6150S
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	H725S	16	H732S	25	H740S	40	H750S			63	H765S	100	H780S	160	H7100S				

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]	Δp_s [kPa]	Δp_{max} [kPa]
450	450	300	300	140	140	60	60												
450	450	300	300	140	140	60	60												
450	450	300	300	140	140	60	60												
450	450	300	300	140	140	60	60												
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1600	1000	1550	1000	850	850	500	500	250	250										
1600	1000	1550	1000	850	850	500	500	250	250										
1600	1000	1550	1000	850	850	500	500	250	250										
1600	1000	1550	1000	850	850	500	500	250	250										
										550	550	350	350	200	200	110	110	70	70
										550	550	350	350	200	200	110	110	70	70
										550	550	350	350	200	200	110	110	70	70
										550	550	350	350	200	200	110	110	70	70
										1100	1000	700	700	450	450	250	250	180	180

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]	Δp_s [kPa]	Δp_{max} [kPa]
450	450	300	300	140	140	60	60												
450	450	300	300	140	140	60	60												
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1600	1000	1550	1000	850	850	500	500	250	250										
1600	1000	1550	1000	850	850	500	500	250	250										
										550	550	350	350	200	200	110	110	70	70

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]	Δp_s [kPa]	Δp_{max} [kPa]
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
1300	1000	950	950	500	500	300	300	130	130										
										400	400	250	250	150	150				
										400	400	250	250	150	150				
										400	400	250	250	150	150				
										400	400	250	250	150	150				

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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 (Δp/p1 < 0.4), water with glycol up to max. 50 vol. %

Suitable actuators



Closed hot water and steam systems in the non-critical range

2-way

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

Standard 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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
1000 N	150 s		•	•				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
1500 N	150 s		•	•				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
2500 N	150 s		•	•				24 V	EV24A-TPC				
			•	•				230 V	EV230A-TPC				
					•			24 V	EV24A-SR-TPC				
					•	•		24 V	EV24A-MP-TPC				
4500 N	120 s				•			24 V	RV24A-SR				

NV.. SV..

EV.. RV..

NVC.. SVC..

Fast runners

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
1000 N	35 s				•			24 V	NVC24A-SR-TPC	1600	1000	1600	1000
					•	•		24 V	NVC24A-MP-TPC	1600	1000	1600	1000
1500 N	35 s				•			24 V	SVC24A-SR-TPC	1600	1000	1600	1000
					•	•		24 V	SVC24A-MP-TPC	1600	1000	1600	1000
2500 N	35 s				•			24 V	EVC24A-SR				

EVC..

Actuators with electrical emergency control function [2]

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
1000 N	150 s	35 s		•			⊣⊢	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
	35 s	35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	1600	1000	1600	1000
					•	•	⊣⊢	24 V	NVKC24A-MP-TPC	1600	1000	1600	1000
2000 N	150 s	35 s		•			⊣⊢	24 V	AVK24A-3-TPC [3]				
				•			⊣⊢	230 V	AVK230A-3				
					•		⊣⊢	24 V	AVK24A-SR-TPC				
					•	•	⊣⊢	24 V	AVK24A-MP-TPC				

NVK.. NVKC..

AVK..

[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 ⊣⊢ 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

Globe valves
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Subject to technical modifications

Continued from previous page

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

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						
				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				

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. %



Closed cold and hot water systems

	DN 200		DN 250	
2-way	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
	630	H6200W630-S7	1000	H6250W1000-S7



Closed cold and hot water systems

	DN 200		DN 250	
3-way	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
	630	H7200W630-S7	1000	H7250W1000-S7

Suitable actuators



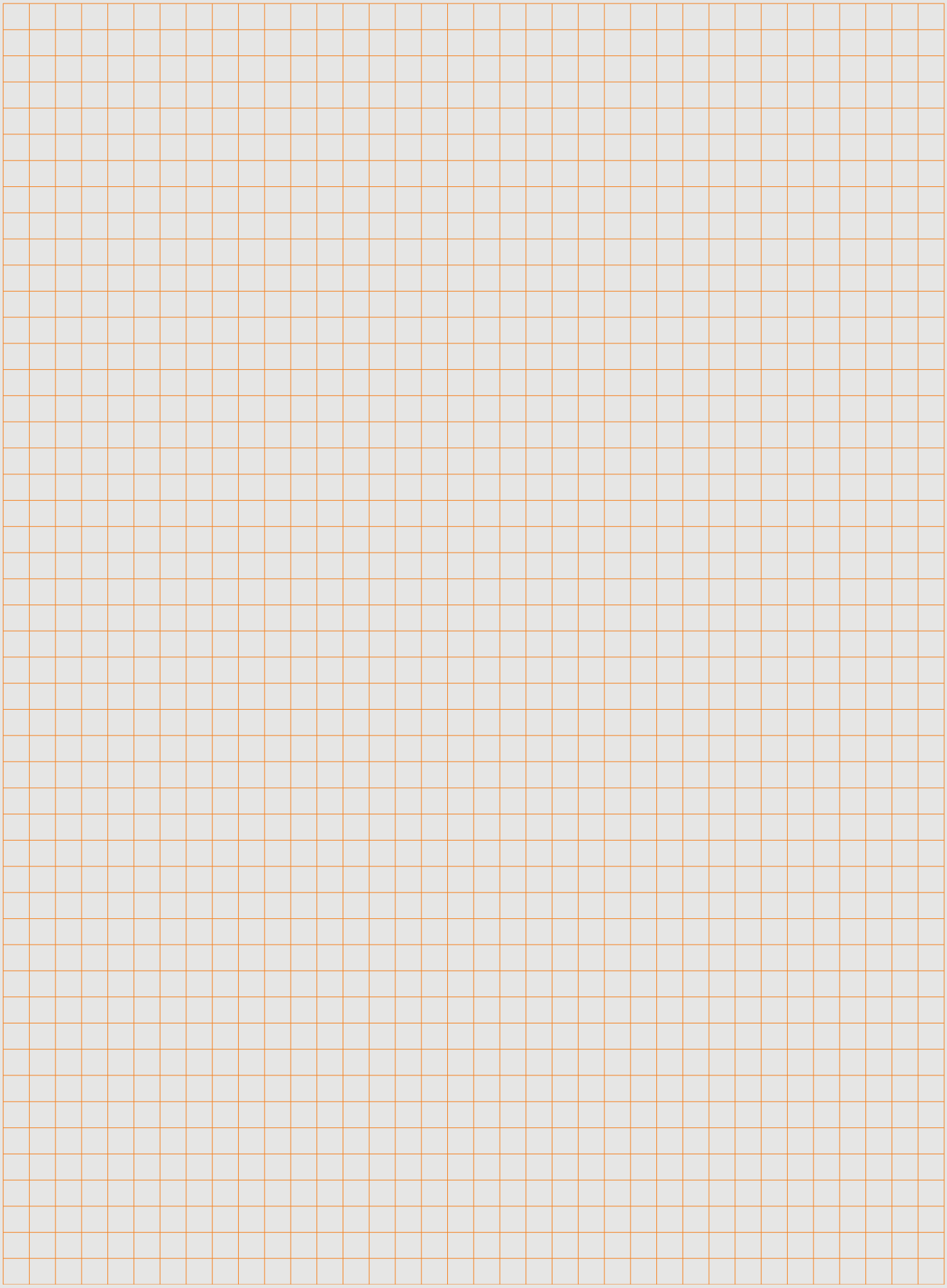
GV..

Standard 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	Actuator type	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
12000 N	82 s	•		230 V	2	GV12-230-3-T	310	60	190	60
			•	24 V		GV12-24-SR-T	310	60	190	60

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

Subject to technical modifications



DN 15 – 100

Pipe connection	Flange PN 25 (ISO 7005-2)
Medium temperature	5...200 °C (120 °C to 2500 kPa, H6..X..-S2: 150 °C to 2430 kPa, H7..X..-S2: 200 °C to 2300 kPa)
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	For closed hot water and steam systems (Δp/p1 < 0.4), water with glycol up to max. 50 vol. %



Closed hot water and steam systems in the non-critical range

2-way

DN 15				DN 20	
k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type	k_{VS} [m³/h]	Valve type
0.4	H6015XP4-S2	1	H6015X1-S2	4	H6020X4-S2
0.63	H6015XP63-S2	1.6	H6015X1P6-S2		
		2.5	H6015X2P5-S2		
		4	H6015X4-S2		



Closed cold water, warm water and hot water systems

3-way

DN 15	
k_{VS} [m³/h]	Valve type
4	H7015X4-S2

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
Standard actuators															
 LV.. NV.. SV..															
500 N	150 s		•	•				24 V	LV24A-TPC [2]	2500	1000	800	800	800	800
			•	•				230 V	LV230A-TPC [2]	2500	1000	800	800	800	800
					•			24 V	LV24A-SR-TPC [2]	2500	1000	800	800	800	800
					•	•		24 V	LV24A-MP-TPC [2]	2500	1000	800	800	800	800
 EV.. RV..															
1000 N	150 s		•	•				24 V	NV24A-TPC	2500	1000	2200	1000	2200	1000
			•	•				230 V	NV230A-TPC	2500	1000	2200	1000	2200	1000
					•			24 V	NV24A-SR-TPC	2500	1000	2200	1000	2200	1000
					•	•		24 V	NV24A-MP-TPC	2500	1000	2200	1000	2200	1000
1500 N	150 s		•	•				24 V	SV24A-TPC	2500	1000	2500	1000	2500	1000
			•	•				230 V	SV230A-TPC	2500	1000	2500	1000	2500	1000
					•			24 V	SV24A-SR-TPC	2500	1000	2500	1000	2500	1000
					•	•		24 V	SV24A-MP-TPC	2500	1000	2500	1000	2500	1000
 LVC.. NVC.. SVC..															
2500 N	150 s		•	•				24 V	EV24A-TPC						
			•	•				230 V	EV230A-TPC						
					•			24 V	EV24A-SR-TPC						
					•	•		24 V	EV24A-MP-TPC						
4500 N	120 s				•			24 V	RV24A-SR						
Fast runners									Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 EVC..															
500 N	35 s				•			24 V	LVC24A-SR-TPC [2]	2500	1000	800	800	800	800
					•	•		24 V	LVC24A-MP-TPC [2]	2500	1000	800	800	800	800
1000 N	35 s				•			24 V	NVC24A-SR-TPC	2500	1000	2200	1000	2200	1000
					•	•		24 V	NVC24A-MP-TPC	2500	1000	2200	1000	2200	1000
1500 N	35 s				•			24 V	SVC24A-SR-TPC	2500	1000	2500	1000	2500	1000
					•	•		24 V	SVC24A-MP-TPC	2500	1000	2500	1000	2500	1000
2500 N	35 s				•			24 V	EVC24A-SR						
Actuators with electrical emergency control function [3]									Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 NVK.. NVKC..															
1000 N	150 s	35 s		•			⊣⊢	24 V	NVK24A-3-TPC [4]	2500	1000	2200	1000	2200	1000
				•			⊣⊢	230 V	NVK230A-3	2500	1000	2200	1000	2200	1000
					•		⊣⊢	24 V	NVK24A-SR-TPC	2500	1000	2200	1000	2200	1000
					•	•	⊣⊢	24 V	NVK24A-MP-TPC	2500	1000	2200	1000	2200	1000
	35 s	35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	2500	1000	2200	1000	2200	1000
					•	•	⊣⊢	24 V	NVKC24A-MP-TPC	2500	1000	2200	1000	2200	1000
 AVK..															
2000 N	150 s	35 s		•			⊣⊢	24 V	AVK24A-3-TPC [4]						
				•			⊣⊢	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] Actuators LV..A.. possible only on valves H6.. .
[3] The emergency setting position NC/NO of all ⊣⊢ 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), closing point of the globe valves H7..X is at top (valve stem extended).
[4] Nominal voltage AC 24 V

Globe valves
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Subject to technical modifications

DN 20		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						
6.3	H6020X6P3-S2	6.3	H6025X6P3-S2	10	H6032X10-S2	16	H6040X16-S2	25	H6050X25-S2						
		10	H6025X10-S2	16	H6032X16-S2	25	H6040X25-S2	40	H6050X40-S2						
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	k_{vs} [m³/h]	Valve type
6.3	H7020X6P3-S2	10	H7025X10-S2	16	H7032X16-S2	25	H7040X25-S2	40	H7050X40-S2	63	H7065X63-S4	100	H7080X100-S4	160	H7100X160-S4

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]
600	600	450	450	300	300	140	140	60	60						
600	600	450	450	300	300	140	140	60	60						
600	600	450	450	300	300	140	140	60	60						
600	600	450	450	300	300	140	140	60	60						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
2500	1000	2100	1000	1500	1000	850	850	500	500						
2500	1000	2100	1000	1500	1000	850	850	500	500						
2500	1000	2100	1000	1500	1000	850	850	500	500						
2500	1000	2100	1000	1500	1000	850	850	500	500						
										550	550	350	350	200	200
										550	550	350	350	200	200
										550	550	350	350	200	200
										550	550	350	350	200	200
										1100	1000	700	700	450	450

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]
600	600	450	450	300	300	140	140	60	60						
600	600	450	450	300	300	140	140	60	60						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
2500	1000	2100	1000	1500	1000	850	850	500	500						
2500	1000	2100	1000	1500	1000	850	850	500	500						
										550	550	350	350	200	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]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
1500	1000	1300	1000	900	900	500	500	300	300						
										400	400	250	250	150	150
										400	400	250	250	150	150
										400	400	250	250	150	150
										400	400	250	250	150	150

Continued from previous page

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 (Δp/p1 < 0.4), water with glycol up to max. 50 vol. %

Suitable actuators



Closed hot water and steam systems in the non-critical range

2-way

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

Standard actuators



NV..
SV..

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
1000 N	150 s		•	•				24 V	NV24A-TPC	2100	1000	1600	1000	1000	1000
			•	•				230 V	NV230A-TPC	2100	1000	1600	1000	1000	1000
					•			24 V	NV24A-SR-TPC	2100	1000	1600	1000	1000	1000
					•	•		24 V	NV24A-MP-TPC	2100	1000	1600	1000	1000	1000
1500 N	150 s		•	•				24 V	SV24A-TPC	2500	1000	2400	1000	1700	1000
			•	•				230 V	SV230A-TPC	2500	1000	2400	1000	1700	1000
					•			24 V	SV24A-SR-TPC	2500	1000	2400	1000	1700	1000
					•	•		24 V	SV24A-MP-TPC	2500	1000	2400	1000	1700	1000

Fast runners



NVC..
SVC..

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
1000 N	35 s				•			24 V	NVC24A-SR-TPC	2100	1000	1600	1000	1000	1000
					•	•		24 V	NVC24A-MP-TPC	2100	1000	1600	1000	1000	1000
1500 N	35 s				•			24 V	SVC24A-SR-TPC	2500	1000	2400	1000	1700	1000
					•	•		24 V	SVC24A-MP-TPC	2500	1000	2400	1000	1700	1000

Actuators with electrical emergency control function [2]



NVK..
NVKC..

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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
1000 N	150 s	35 s		•			⊣⊢	24 V	NVK24A-3-TPC [3]	2100	1000	1600	1000	1000	1000
				•			⊣⊢	230 V	NVK230A-3	2100	1000	1600	1000	1000	1000
					•		⊣⊢	24 V	NVK24A-SR-TPC	2100	1000	1600	1000	1000	1000
					•	•	⊣⊢	24 V	NVK24A-MP-TPC	2100	1000	1600	1000	1000	1000
	35 s	35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	2100	1000	1600	1000	1000	1000
					•	•	⊣⊢	24 V	NVKC24A-MP-TPC	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 ⊣⊢ 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

2-way

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

3-way

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



LV..
NV..
SV..



LVC..
NVC..
SVC..



NVK..
NVKC..

Standard 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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [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 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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [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 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	Actuator type	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [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
					•	•	⊣⊢	24 V	NVK24A-MP-TPC	800	800	800	800
		35 s			•		⊣⊢	24 V	NVKC24A-SR-TPC	800	800	800	800
					•	•	⊣⊢	24 V	NVKC24A-MP-TPC	800	800	800	800

Globe valves
7

Continued next page

Subject to technical modifications

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
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
				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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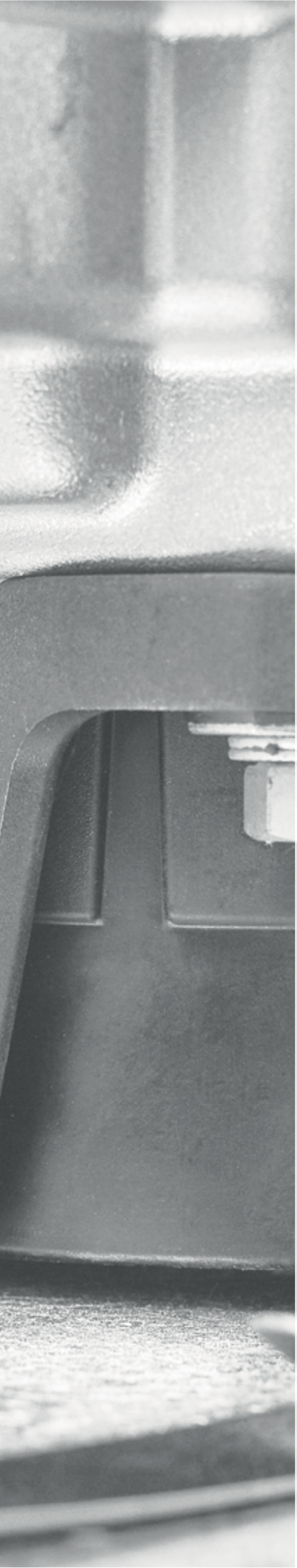


8

Control butterfly valves

Fit for reliable control applications

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

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.

Download on the App Store

GET IT ON Google Play

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

For control applications	k_{vs} [1] [m³/h]	DN 25 24	DN 32 25	DN 40 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

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	Actuator type Modulating (2 ... 10 V)	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
Standard actuators																
 SR..	20 Nm	•	•	•			24 V	90 s		SR24A-SR-5	1200	300	1200	300	1200	300
				•			230 V			SR230A-SR-5	1200	300	1200	300	1200	300
 GR.. GRC..	40 Nm	•		•			24 V	150 s		GR24A-SR-5	1200	300	1200	300	1200	300
	<90 Nm	•		•			24 V	150 s		DR24A-SR-5						
				•			24 V			DR24A-SR-7						
Fast runners										Actuator type modulating (2...10 V)	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 DR..	160 Nm	•	•	•	•		AC 24...240 V DC 24...125 V	35 s [2]	2	PRCA-BAC-S2-T						
 PR..										PRCA-BAC-S2-T-200						
										PRCA-BAC-S2-T-250						
Actuators with emergency control function NC/NO										Actuator type NC/NO	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 PRK..	160 Nm	•	•	•	•	⊣⊢	AC 24...240 V DC 24...125 V	35 s [2]	2	PRKCA-BAC-S2-T						
										PRKCA-BAC-S2-T-200						
										PRKCA-BAC-S2-T-250						

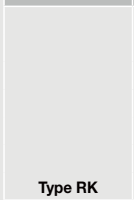
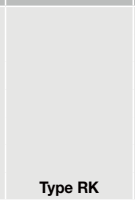
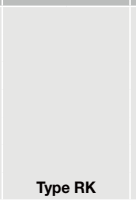
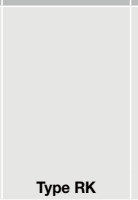
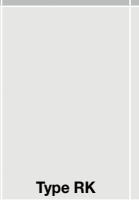
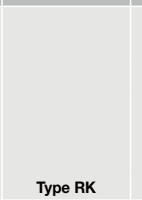
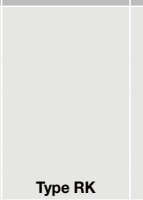
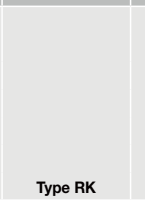
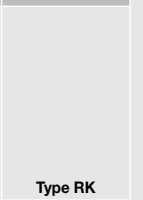
⊣⊢ = actuators with electrical emergency control function. The emergency setting position NC/NO of all ⊣⊢ actuators can be adjusted on the actuator.

[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

Continued next page

Subject to technical modifications

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	Type RK	Type RK	Type RK	Type RK	Type RK	Type RK	Type RK	Type RK
D650N	D665N	D680N	D6100N	D6125N	D6150N	D6200W	D6250W	D6300W
Type RK	Type RK	Type RK	Type RK	Type RK	Type RK	Type RK	Type RK	Type RK
D650NL	D665NL	D680NL	D6100NL	D6125NL	D6150NL	D6200WL	D6250WL	D6300WL

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	Type RK	Type RK
	D6350N	D6400N	D6450N
			
With lug types	Type RK	Type RK	Type RK
	D6350NL	D6400NL	D6450NL

Suitable actuators


SY..

Fast runners	Nominal torque	Modulating	Terminal connection	Nominal voltage AC 230V	Running time motor 90°	Auxiliary switch SPDT	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	600 [4]	300
1500 Nm	•	•	230 V	55 s	2	SY8-230A-MF-T					1000 [4]	300
2000 Nm	•	•	230 V	70 s	2	SY9-230A-MF-T						
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

Continued next page

Subject to technical modifications

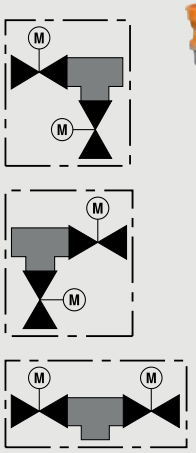
DN 500	DN 600	DN 700
7060	10900	11760
Type RK	Type RK	Type RK
D6500N	D6600N	D6700N
Type RK	Type RK	Type RK
D6500N	D6600N	D6700N

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

Continued from previous page

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]	$\Delta p_{max.}$ [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



T-piece for 3-way butterfly valve
Spheroidal cast iron
with fastening screws

DN	Suitable for DK: D7150NL/BAC	D7200WL/BAC	D7250WL/BAC	D7300WL/BAC	Type
150	•				ZD7150
200		•			ZD7200
250			•		ZD7250
300				•	ZD7300

Subject to technical modifications

9

Ball valves

Open-close and
change-over applications

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

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

BELIMO

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.

Download on the App Store

GET IT ON Google Play

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



Closed and open water circuit (pH >7)

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



Closed water circuit (pH >7)

	DN 15		DN 20	
3-way / T-bore	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
	15	R3015-S1	32	R3020-S2

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	Actuator type without auxiliary switch	with auxiliary switch	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
Small and compact actuators														
 TR.. TRY..	2 Nm	•	•		24 V	35 s		TRY24 2)			1400	1000		
						100 s		TR24 2)			1400	1000		
		•	•		230 V	35 s		TRY230 2)			1400	1000		
Standard actuators														
 LR.. NR.. SR..	5 Nm	•	•		24 V	90 s			LR24A	..-S	1400	1000	1400	1000
		•	•		230 V				LR230A	..-S	1400	1000	1400	1000
	10 Nm	•	•		24 V	90 s			NR24A	..-S	1400	1000	1400	1000
		•	•		230 V				NR230A	..-S	1400	1000	1400	1000
	20 Nm	•	•		24 V	90 s			SR24A	..-S	1400	1000	1400	1000
		•	•		230 V				SR230A	..-S	1400	1000	1400	1000
Very fast runners								Actuator type			Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
 LRQ.. NRQ.. SRQ..	4 Nm	•	•		24 V	9 s		LRQ24A			1400	1000	1400	1000
	8 Nm	•	•		24 V	9 s		NRQ24A			1400	1000	1400	1000
	16 Nm	•	•		24 V	9 s		SRQ24A			1400	1000	1400	1000
Actuators with mechanical emergency control function								Actuator type NC without auxiliary switch	Actuator type NC with 1 auxiliary switch	Actuator type NO without auxiliary switch / with 1 auxiliary switch	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
 TRF..	2 Nm	•			24 V	75 s	75 s	TRF24 2)	..-S	..-O / ..-S-O	1400	1000		
		•			230 V	75 s	75 s	TRF230 2)	..-S	..-O / ..-S-O	1400	1000		
	4 Nm	•			24 V	<75 s	<20 s	LRF24 2)	..-S	..-O / ..-S-O	1400	1000	1400	1000
		•			230 V	<75 s	<20 s	LRF230 2)	..-S	..-O / ..-S-O	1400	1000	1400	1000
Actuators with mechanical emergency control function								Actuator type NC without auxiliary switch	Actuator type NC with 2 auxiliary switches	Actuator type NO without auxiliary switch / with 2 auxiliary switches	Δps [kPa]	Δpmax 1) [kPa]	Δps [kPa]	Δpmax 1) [kPa]
 LRF..	10 Nm	•			24 V	<75 s	<20 s	NRF24A	..-S2	..-O / ..-S2-O	1400	1000	1400	1000
 NRF.. SRF..		•			AC 24...240 V DC 24...125 V	<75 s	<20 s	NRFA	..-S2	..-O / ..-S2-O	1400	1000	1400	1000
	20 Nm	•			24 V	<75 s	<20 s	SRF24A	..-S2	..-O / ..-S2-O	1400	1000	1400	1000
		•			AC 24...240 V DC 24...125 V	< 75 s	<20 s	SRFA	..-S2	..-O / ..-S2-O	1400	1000	1400	1000

Continued next page

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

Subject to technical modifications

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
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	R3025-S2	32	R3032-S3	31	R3040-S3	49	R3050-S4

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	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

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	1000						
1400	1000	1400	1000	1400	1000		
1400	1000	1400	1000	1400	1000	1400	1000

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	1000						
1400	1000						

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	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

Continued from previous page

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



Closed and open water circuit (pH >7)

3-way L-bore



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	DN 15 k_{vs} [m³/h]	DN 15 Valve type	DN 20 k_{vs} [m³/h]	DN 20 Valve type
							5.5	R3015-BL1	11	R3020-BL2

Small and compact actuators



TR..
TRY..

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	DN 15 Δp_s [kPa]	DN 15 Δp_{max} [1] [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{max} [1] [kPa]
2 Nm	•	•		24 V	35 s		TRY24	500	350		
					100 s		TR24	500	350		
	•	•		230 V	35 s		TRY230	500	350		

Standard actuators



LR..
NR..
SR..

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 without auxiliary switch	Actuator type with auxiliary switch	DN 15 Δp_s [kPa]	DN 15 Δp_{max} [1] [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{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



LRQ..
NRQ..
SRQ..

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	DN 15 Δp_s [kPa]	DN 15 Δp_{max} [1] [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{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



TRF..

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 NC without auxiliary switch	Actuator type NC with 1 auxiliary switch	Actuator type NO without auxiliary switch	Actuator type NO with 1 auxiliary switch	DN 15 Δp_s [kPa]	DN 15 Δp_{max} [1] [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{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



LRF..



NRF..
SRF..

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 NC without auxiliary switch	Actuator type NC with 2 auxiliary switches	Actuator type NO without auxiliary switch	Actuator type NO with 2 auxiliary switches	DN 15 Δp_s [kPa]	DN 15 Δp_{max} [1] [kPa]	DN 20 Δp_s [kPa]	DN 20 Δp_{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 Δp_{max} = 200 kPa.

Continued next page

Subject to technical modifications

Continued from previous page

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	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

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]
500	350	500	350										
500	350	500	350										
500	350	500	350	500	350	500	350			500	350		
500	350	500	350	500	350	500	350			500	350		
500	350	500	350	500	350	500	350	500	350	500	350	500	350
500	350	500	350	500	350	500	350	500	350	500	350	500	350
500	350	500	350										
500	350	500	350	500	350	500	350						
500	350	500	350	500	350	500	350			500	350		
500	350	500	350										
500	350	500	350										
500	350	500	350	500	350	500	350			500	350		
500	350	500	350	500	350	500	350			500	350		
500	350	500	350	500	350	500	350	500	350	500	350	500	350
500	350	500	350	500	350	500	350	500	350	500	350	500	350

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)

	DN 15		DN 20	
	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
2-way	8.6	R415	21	R420



Closed and open water circuit (pH >7)

	DN 15		DN 20	
	k_{vs} [m³/h]	Valve type	k_{vs} [m³/h]	Valve type
3-way / T-bore	8.6	R515	21	R520

Suitable actuators

Small and compact actuators



TR..
TRY..

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
					100 s		TR24	1400	400	1400	400
	•	•		230 V	35 s		TRY230	1400	400	1400	400

Standard actuators



LR..
NR..
SR..

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 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



LRQ..
NRQ..
SRQ..

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]
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



TRF..

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 NC without auxiliary switch	Actuator type NC with 1 auxiliary switch	Actuator type NO without auxiliary switch	Actuator type NO 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



LRF..



NRF..
SRF..

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 NC without auxiliary switch	Actuator type NC with 2 auxiliary switches	Actuator type NO without auxiliary switch	Actuator type NO 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.

Continued next page

Subject to technical modifications

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
26	R525	32	R532	32	R540	49	R550

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
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	1400	400
1400	400	1400	400	1400	400	1400	400
1400	400	1400	400	1400	400	1400	400

Continued from previous page

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



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	R7015R-B1	32	R7020R-B1

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	DN 15 Δps [kPa]	DN 15 Δpmax [kPa]	DN 20 Δps [kPa]	DN 20 Δpmax [kPa]
Small and compact actuators												
 TR.. TRY..	2 Nm	•	•		24 V	35 s		TRY24	600	100	600	100
						100 s		TR24	600	100	600	100
		•	•		230 V	35 s		TRY230	600	100	600	100
Standard actuators								Actuator type without auxiliary switch / with auxiliary switch				
 LR.. NR.. SR..	5 Nm	•	•		24 V	90 s		LR24A ..-S	600	100	600	100
		•	•		230 V			LR230A ..-S	600	100	600	100
	10 Nm	•	•		24 V	90 s		NR24A ..-S	600	100	600	100
		•	•		230 V			NR230A ..-S	600	100	600	100
	20 Nm	•	•		24 V	90 s		SR24A ..-S	600	100	600	100
		•	•		230 V			SR230A ..-S	600	100	600	100
Very fast runners								Actuator type				
 LRQ.. NRQ.. SRQ..	4 Nm	•	•		24 V	9 s		LRQ24A	600	100	600	100
	8 Nm	•	•		24 V	9 s		NRQ24A	600	100	600	100
	16 Nm	•	•		24 V	9 s		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				
 TRF..	2 Nm	•			24 V	75 s	75 s	TRF24 ..-S ..-O ..-S-O	600	100	600	100
		•			230 V	75 s	75 s	TRF230 ..-S ..-O ..-S-O	600	100	600	100
	4 Nm	•			24 V	<75 s	<20 s	LRF24 ..-S ..-O ..-S-O	600	100	600	100
		•			230 V	<75 s	<20 s	LRF230 ..-S ..-O ..-S-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				
 LRF..	10 Nm	•			24 V	<75 s	<20 s	NRF24A ..-S2 ..-O ..-S2-O	600	100	600	100
 NRF.. SRF..		•			AC 24...240 V DC 24...125 V	<75 s	<20 s	NRFA ..-S2 ..-O ..-S2-O	600	100	600	100
	20 Nm	•			24 V	<75 s	<20 s	SRF24A ..-S2 ..-O ..-S2-O	600	100	600	100
		•			AC 24...240 V DC 24...125 V	<75 s	<20 s	SRFA ..-S2 ..-O ..-S2-O	600	100	600	100

Continued next page

Subject to technical modifications

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
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	R7025R-B2	32	R7032R-B3	31	R7040R-B3	49	R7050R-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]

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

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

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						

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

Continued from previous page



10

Potable water valves

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

Rotary valves	2-way	PN 10	DN 15 – 50	66

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


NR..
SR..


GR..


NRF..
SRF..


GRK..

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	Actuator type	DN 15 k_{vs} [m³/h]	DN 15 Valve type	Δp_s [kPa]	Δp_{max} [kPa]
Standard actuators								28	EXT-R215-B3-PW		
10 Nm	•	•		24 V	90 s		NR24A			1000	1000
						•	NR24A-S			1000	1000
				230 V			NR230A [1]			1000	1000
						•	NR230A-S			1000	1000
20 Nm	•	•		24 V	90 s		SR24A				
						•	SR24A-S				
				230 V			SR230A [1]				
						•	SR230A-S				
40 Nm	•	•		24 V	150 s		GR24A-5				
				230 V			GR230A-5				
Actuators with emergency control function NC/NO							**Actuator type**			**Δp_s [kPa]**	**Δp_{max} [kPa]**
10 Nm	•			24 V	75 s		NRF24A			1000	1000
							NRF24A-O			1000	1000
	•			24 V	75 s	•	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
	•			24...240 V AC 24...125 V DC	75 s	•	NRFA-S2			1000	1000
							NRFA-S2-O			1000	1000
20 Nm	•			24 V	75 s		SRF24A				
							SRF24A-O				
	•			24 V	75 s	•	SRF24A-S2				
							SRF24A-S2-O				
	•			24...240 V AC 24...125 V DC	75 s		SRFA				
							SRFA-O				
	•			24...240 V AC 24...125 V DC	75 s	•	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.

Continued next page

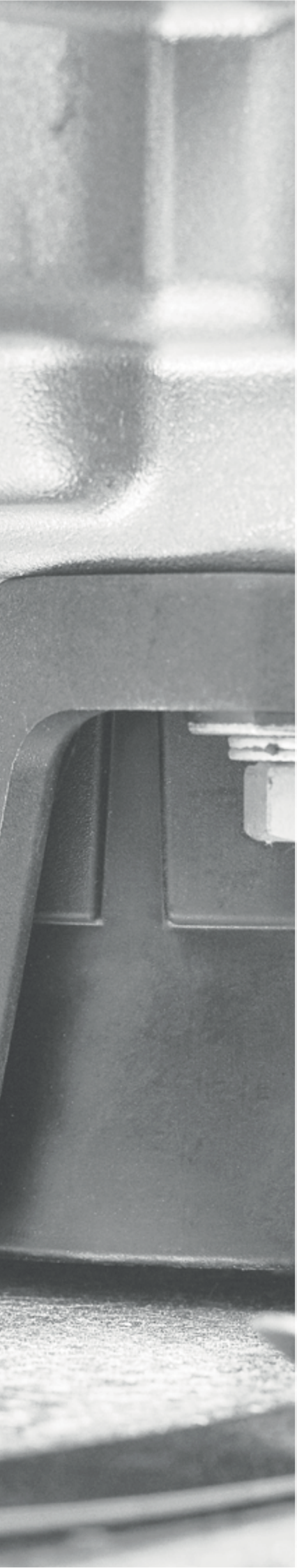
Subject to technical modifications

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

Continued from previous page

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	1000	1000		
								1000	1000

Subject to technical modifications



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.

Download on the App Store

GET IT ON Google Play

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

For Open-Close applications	k_{vmax} [m³/h]	DN 25 50	DN 32 55	DN 40 65
				
With wafer types		Type AK D625N	Type AK D632N	Type AK D640N
				
With lug types		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	Actuator type open-close / 3-point	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
Standard actuators															
 SR..	20 Nm	•	•			24 V	90 s		SR24A-5	1200	300	1200	300	1200	300
						230 V			SR230A-5	1200	300	1200	300	1200	300
	40 Nm	•				24 V	150 s		GR24A-5	1200	300	1200	300	1200	300
						230 V			GR230A-5	1200	300	1200	300	1200	300
 GR.. GRC..	<90 Nm	•				24 V	150 s		DR24A-5						
						230 V			DR230A-5						
						24 V			DR24A-7						
						230 V			DR230A-7						
Fast runners									Actuator type open-close / 3-point	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 DR.. DRC..	40 Nm	•				24 V	35 s		GRC24A-5 [1]	1200	300	1200	300	1200	300
						230 V			GRC230A-5 [1]	1200	300	1200	300	1200	300
	<90 Nm	•				24 V	35 s		DRC24A-5 [1]						
						230 V			DRC230A-5 [1]						
						24 V			DRC24A-7 [1]						
						230 V			DRC230A-7 [1]						
 PR..	160 Nm	•	•	•		AC 24...240 V DC 24...125 V	35 s [2]	2	PRCA-S2-T						
								2	PRCA-S2-T-200						
								2	PRCA-S2-T-250						
Actuators with emergency control function NC									Actuator type NC	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]	Δps [kPa]	Δpmax [kPa]
 SRF..	20 Nm	•			⊚	24 V	75 s		SRF24A-5	1200	300	1200	300	1200	300
					⊚			2	SRF24A-S2-5	1200	300	1200	300	1200	300
 GRK..					⊚	AC 24...240 V DC 24...125 V	75 s		SRFA-5	1200	300	1200	300	1200	300
					⊚			2	SRFA-S2-5	1200	300	1200	300	1200	300
 DRK..	40 Nm	•			⊣⊢	24 V	150 s		GRK24A-5	1200	300	1200	300	1200	300
	<90 Nm	•			⊣⊢	24 V	150 s		DRK24A-5						
					⊣⊢				DRK24A-7						
 PRK..	160 Nm	•	•	•	⊣⊢	AC 24...240 V DC 24...125 V	35 s [3]	2	PRKCA-BAC-S2-T						
								2	PRKCA-BAC-S2-T-200						
								2	PRKCA-BAC-S2-T-250						

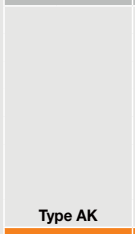
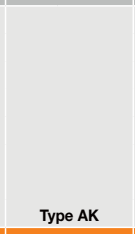
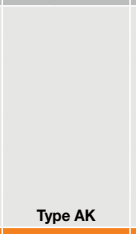
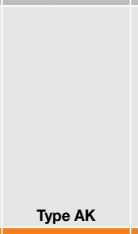
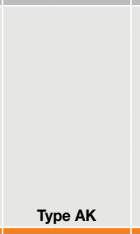
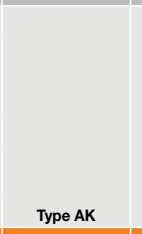
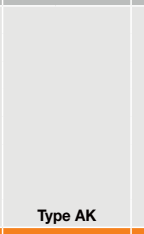
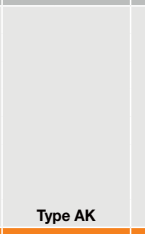
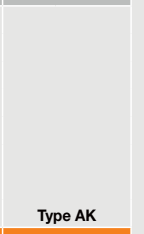
⊚ = actuators with mechanical emergency control function.
⊣⊢ = actuators with electrical emergency control function. The emergency setting position NC/NO of all ⊣⊢ actuators can be adjusted on the actuator.

[1] These products are also available as IP66 variant with protective housing.
[2] (30...120 s variable)

[3] Adapter ZPR01
[4] Adapter ZPR03

Continued next page

Subject to technical modifications

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	Type AK	Type AK	Type AK	Type AK	Type AK	Type AK	Type AK	Type AK
D650N	D665N	D680N	D6100N	D6125N	D6150N	D6200W	D6250W	D6300W
Type AK	Type AK	Type AK	Type AK	Type AK	Type AK	Type AK	Type AK	Type AK
D650NL	D665NL	D680NL	D6100NL	D6125NL	D6150NL	D6200WL	D6250WL	D6300WL

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												
				1200		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	300	1200	300	1200	300												
1200	300	1200	300	1200	300												
				1200	300	1200	300										
				1200	300	1200	300										
								1200	300								
								1200	300								
				1200 [5]	300	1200 [5]	300	1200 [4]	300	1200 [4]	300					1400 [4]	300
												1400 [4]	300				
														1400 [4]	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		1200															
1200		1200															
1200		1200															
1200		1200															
1200		1200		1200	300												
				1200	300	1200	300										
								1200	300								
				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

For Open-Close applications	k_{vmax} [m³/h]	DN 350	DN 400	DN 450
		10900	14200	18800
				
With wafer types		Type AK	Type AK	Type AK
		D6350N	D6400N	D6450N
				
With lug types		Type AK	Type AK	Type AK
		D6350NL	D6400NL	D6450NL

Suitable actuators


SY..

Fast runners	Nominal torque	Open-close	3-point	Terminal connection	Nominal voltage AC 230V	Running time motor 90°	Auxiliary switch SPDT	Actuator type open-close / 3-point	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]	Δp_s [kPa]	Δp_{max} [kPa]
	650 Nm	•	•	•	230 V	31 s	2	SY6-230-3-T	600	300	600 [2]	300		
	1000 Nm	•	•	•	230 V	55 s	2	SY7-230A-3-T	1200 [5]	300	1000 [3]	300	600 [4]	300
	1500 Nm	•	•	•	230 V	55 s	2	SY8-230A-3-T					1000 [4]	300
	2000 Nm	•	•	•	230 V	70 s	2	SY9-230A-3-T						
	2500 Nm	•	•	•	230 V	70 s	2	SY10-230A-3-T						
	3500 Nm	•	•	•	230 V	70 s	2	SY12-230A-3-T						

[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

Continued next page

Subject to technical modifications

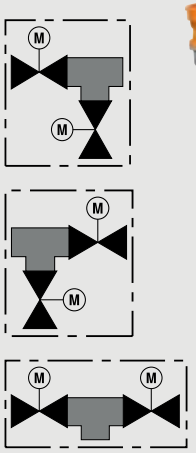
DN 500	DN 600	DN 700
24100	37300	42800
Type AK	Type AK	Type AK
D6500N	D6600N	D6700N
Type AK	Type AK	Type AK
D6500N	D6600N	D6700N

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

Continued from previous page

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]	$\Delta p_{max.}$ [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



T-piece for 3-way butterfly valve
Spheroidal cast iron
with fastening screws

DN	Suitable for DK: D7150NL/BAC	D7200WL/BAC	D7250WL/BAC	D7300WL/BAC	Type
150	•				ZD7150
200		•			ZD7200
250			•		ZD7250
300				•	ZD7300

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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 kv value in reference to the nominal delay angle is referred to as the kvs 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. 10 V.
Δp_{max}	Maximum permitted pressure differnece 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.

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