

Centra Linear Valve XF...A

3-way Flanged Linear Valve PN6

APPLICATION

These three-port mixing valves are used for modulating control of hot/chilled water or steam in heating, ventilation, and air conditioning systems.

The valves can be operated by linear actuators series ML64... and ML74...

SPECIAL FEATURES

- Cast iron body with flanged end connections
- Low seat leakage rate
- Metal-to-metal seating for long life span
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control
- Easy mounting of direct-coupled electric actuators
- Constant total flow throughout full plug travel

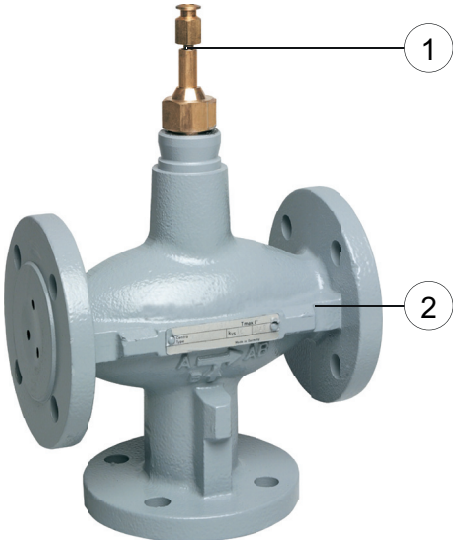
TECHNICAL DATA

Media		
Medium:	Water or glycol-water mixture, according to VDI 2035	
Operating temperatures and operating pressure		
DN15 - DN80:	2...120 °C:	max. 600 kPa
	120...150 °C:	max. 540 kPa
	150...170 °C:	max. 510 kPa
DN100 - DN150:	2...120 °C:	max. 600 kPa
Maximum temperature differential in alternating hot/cold water use:	60 K	
Connection/Sizes		
Connection:	Flanged per ISO 7005-2 Cast iron (GG25)	



Specifications		
Action:	Stem up to close port A-AB	
Nominal pressure rating:	PN6	
Flow characteristic:	Equal percentage:	port A-AB
	Linear:	port B-AB
Rangeability:	50:1	
Leakage rate:		
DN15 - DN80:	≤0.5 % of kvs port A-AB ≤1 % of kvs port B-AB	
DN100 - DN150:	≤0.1 % of kvs port A-AB ≤1 % of kvs port B-AB	
Stroke:	20 mm (DN15 to DN 80) 38 mm (DN100 to DN150)	
Packaging:	Spring-loaded PTFE V-rings and cone rings	

CONSTRUCTION

Overview		Components	Materials
	1	Stem	Stainless steel
	2	Valve body	Cast iron (GG25), Flanged per ISO 7005-2
	Not depicted components:		
		Seat	Stainless steel, replaceable Body integrated
		Plug	Stainless steel, skirt-guided

INSTALLATION GUIDELINES

Setup requirements

- Do not install valve with stem below the horizontal
- Fluid flow must correspond with the arrow direction on the valve body
- The installation of a strainer is strongly recommended

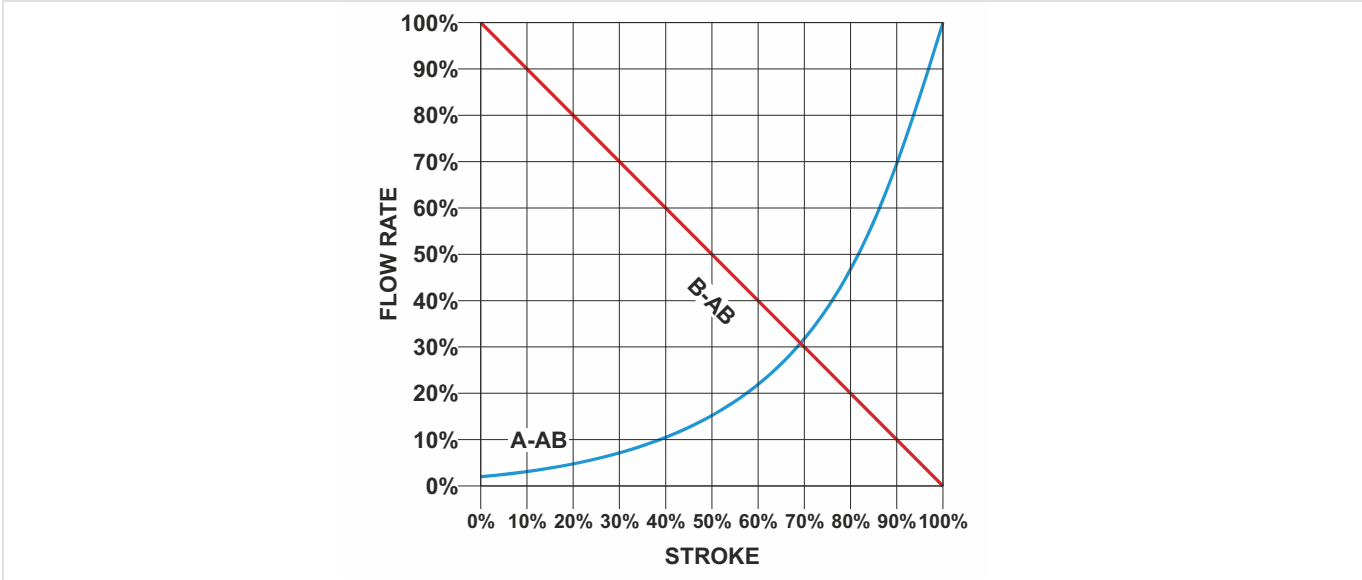
TECHNICAL CHARACTERISTICS

Close off pressure ratings in kPa

Actuator		Valve Size										
Model	Force	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
ML6420A ML6425A/B ML7420A ML7425A/B	600 N	600 kPa	600 kPa	600 kPa	600 kPa	480 kPa	260 kPa*	160 kPa	100 kPa*	-	-	-
ML6421A ML7421A	1800 N	-	-	-	600 kPa	600 kPa	600 kPa	600 kPa	400 kPa	-	-	-
ML6421B ML7421B	1800 N	-	-	-	-	-	-	-	-	150 kPa	120 kPa	80 kPa

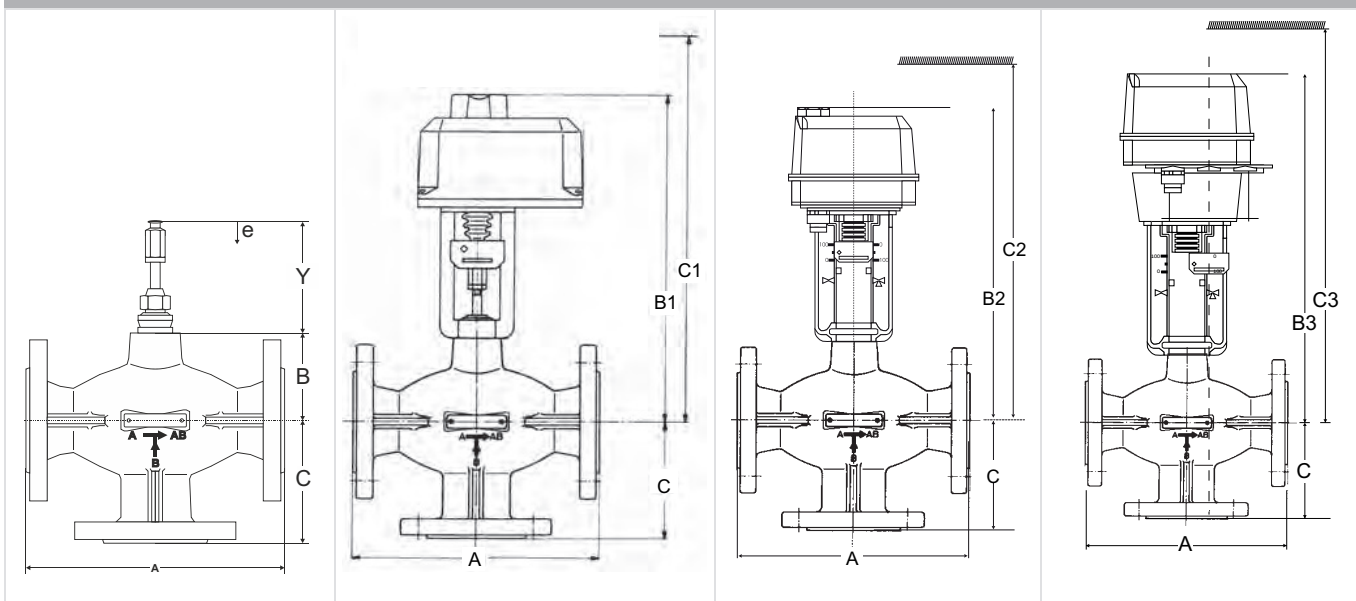
* Preferred solution are the ML6421/ML7421 actuators

Characteristic curves



DIMENSIONS

Overview



DN	A	B	C	Adjustment dimension (A-AB in closed position)	Stroke	ML6421A ML7421A		ML6420 ML7420		ML6425 ML7425	
				Y		B1	C1	B2	C2	B3	C3
15	130	63	90	107	20	330	425	305	385	350	430
20	150	63	95			330	425	305	385	350	430
25	160	80	100			345	440	325	405	365	445
32	180	80	105			345	440	325	405	365	445
40	200	80	115			345	440	325	405	365	445
50	230	94	125			360	455	340	420	380	460
65	290	105	145			370	465	350	430	390	470
80	310	112	155			380	475	355	435	400	480
						ML6421B ML7421B					
100	350	100	150	107.5	38	430	530	-	-	-	-
125	400	120	175			450	550	-	-	-	-
150	480	140	200			470	570	-	-	-	-

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

When ordering, please always state the ordering number.

Naming key linear valves

X	F	15	A	2.5
Type of valve	Type of thread	DN	PN	K _{VS} -value
X = 3-way valve	F = Flanged	15 20 25 32 40 50 65 80 100 125 150	A = 6	2.5 4.0 6.3 10 16 25 40 63 100 140 220 310

3-Way Linear Valve - Flanged

DN	k_{VS}-value	Connection	Nominal pressure	Description	OS.-No.
15	2.5	flanged	PN6	3-way valve, flanged, DN15, PN6, k _{VS} 2.5	XF15A2.5
15	4	flanged	PN6	3-way valve, flanged, DN15, PN6, k _{VS} 4	XF15A4.0
20	6.3	flanged	PN6	3-way valve, flanged, DN20, PN6, k _{VS} 6.3	XF20A6.3
25	10	flanged	PN6	3-way valve, flanged, DN25, PN6, k _{VS} 10	XF25A10
32	16	flanged	PN6	3-way valve, flanged, DN32, PN6, k _{VS} 16	XF32A16
40	25	flanged	PN6	3-way valve, flanged, DN40, PN6, k _{VS} 25	XF40A25
50	40	flanged	PN6	3-way valve, flanged, DN50, PN6, k _{VS} 40	XF50A40
65	63	flanged	PN6	3-way valve, flanged, DN65, PN6, k _{VS} 63	XF65A63
80	100	flanged	PN6	3-way valve, flanged, DN80, PN6, k _{VS} 100	XF80A100
100	140	flanged	PN6	3-way valve, flanged, DN100, PN6, k _{VS} 140	XF100A140
125	220	flanged	PN6	3-way valve, flanged, DN125, PN6, k _{VS} 220	XF125A220
150	310	flanged	PN6	3-way valve, flanged, DN150 PN6, k _{VS} 310	XF150A310

Accessories

Overview associated actuators

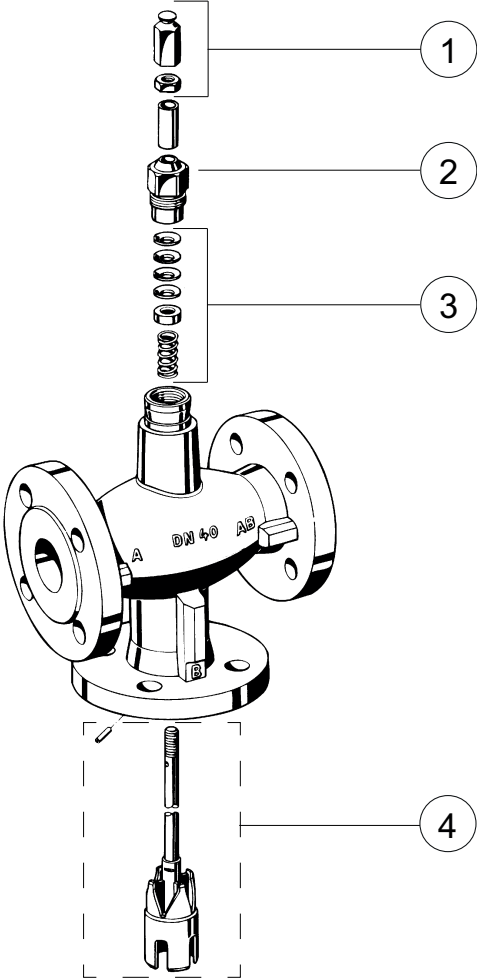
		Control signal			
Valve stroke		3-point (230 V AC or 24 V AC power supply)		0...10 V (24 V AC power supply)	
20 mm		ML6420A ML6421A ML6425A/B		ML7420A ML7421A ML7425A/B	
38 mm		ML6421B		ML7421B	

	Description	Voltage	Runtime	Part No.	
	ML6420A	Actuator: 20 mm stroke, 600 N, 3-point, floating			
		230 V AC	60 s	ML6420A3015	
			30 s	ML6420A3031	
		24 V AC	60 s	ML6420A3007	
			30 s	ML6420A3023	
	ML7420A	Actuator: 20 mm stroke, 600 N, 0/2 ... 10 V, modulating			
		24 V AC	60 s	ML7420A6009	
			30 s	ML7420A6017	
	ML6421	Actuator: 1800 N, 3-point, floating			
		20 mm stroke	230 V AC	114 s	ML6421A3013
			24 V AC		ML6421A3005
		38 mm stroke	230 V AC	210 s	ML6421B3012
			24 V AC		ML6421B3004
	ML7421	Actuator: 1800 N, 0/2 ... 10 V, modulating			
		24 V AC	114 s	ML7421A3004	
			210 s	ML7421B3003	
	ML6425	Actuator: 20 mm stroke, 600 N, 3-point, floating			
		Spring return extends	230 V AC	108 s	ML6425A3014
			24 V AC		ML6425A3006
		Spring return retract	230 V AC		ML6425B3021
			24 V AC		ML6425B3005
	ML7425	Actuator: 20 mm stroke, 600 N, 0/2 ... 10 V, modulating			
		Spring return extends	24 V AC	108 s	ML7425A6008
		Spring return retract			ML7425B6007

Spare Parts

Naming key spare parts

ASV	-PA	-3	-25
Accessories and spares for valves	Range	Type	k _{VS} -value
ASV = Accessories and spares for valves	PAC = Packing, complete	1	25
	PN = Packing nut	2	40
	SBA = Stem button assy	3	63
	PA = Plug assembly	4	100
			140
			220
			310

Overview	Description	Dimension	Part No.
	1 Stem button assy		
		DN15 - DN32	ASV-SBA-1
		DN15 - DN65	ASV-SBA-2
		DN100 - DN150	ASV-SBA-4
	2 Packing nut		
		DN15 - DN32	ASV-PN-1
		DN40 - DN80	ASV-PN-2
		DN100 - DN150	ASV-PN-4
	3 Packing		
		DN15 - DN32	ASV-PAC-1
		DN40 - DN80	ASV-PAC-2
		DN100 - DN150	ASV-PAC-4
	4 Plug assembly		
		DN40, k _{VS} 25	ASV-PA-3-25
		DN50, k _{VS} 40	ASV-PA-3-40
		DN65, k _{VS} 63	ASV-PA-3-63
		DN80, k _{VS} 100	ASV-PA-3-100
		DN100, k _{VS} 140	ASV-PA-3-140
		DN125, k _{VS} 220	ASV-PA-3-220
		DN150, k _{VS} 310	ASV-PA-3-310



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