



Centra Linear Valve XF...B

3-way Flanged Linear Valve PN16

APPLICATION

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

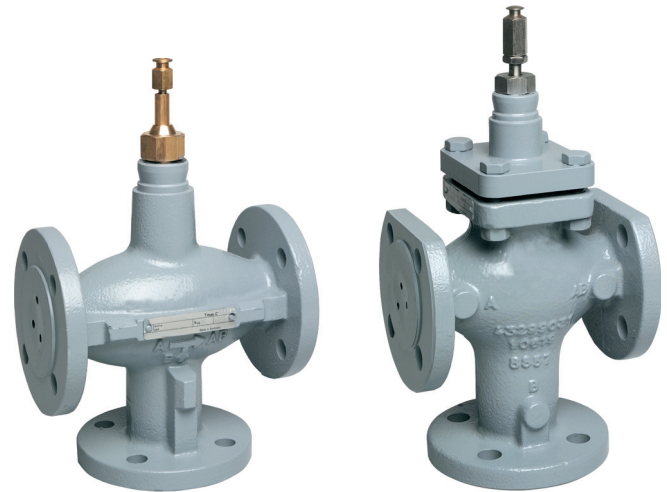
The valves can be operated by linear actuators series ML64... and ML74...

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 valve stroke

TECHNICAL DATA

Media		
Medium:	Water or glycol-water mixture, according to VDI 2035	
Operating temperatures and operating pressure		
DN15 - DN80:	2...120 °C:	max. 1600 kPa
	120...150 °C:	max. 1440 kPa
	150...170 °C:	max. 1370 kPa
DN100 - DN150:	2...120 °C:	max. 1600 kPa
	120...150 °C:	max. 1440 kPa
	150...200 °C:	max. 1280 kPa
	200...220 °C:	max. 1200 kPa
Maximum temperature differential in alternating hot/cold water use:	60 K	
Connection/Sizes		
Connection:	Flanged per ISO 7005-2	
Specifications		
Action:	Stem up to close port A-AB	
Nominal pressure rating:	PN16	
Flow characteristic:		
DN15 - DN80:	port A-AB	Equal percentage
	port B-AB	
DN100 - DN150:	port A-AB	Linear
	port B-AB	
Rangeability:	50:1	



DN15 - DN80

DN100 - DN150

Specifications	
Leakage rate:	
DN15 - DN80:	0.5 % of k_{VS} port A-AB 1 % of k_{VS} port B-AB
DN100 - DN150:	0.1 % of k_{VS} port A-AB 0.1 % of k_{VS} port B-AB
Stroke:	
DN15 - DN80:	20 mm
DN100 - DN150:	38 mm
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

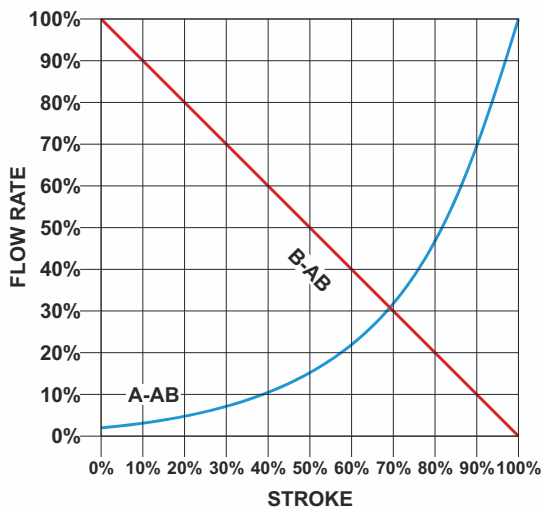
TECHNICAL CHARACTERISTICS

Close off pressure ratings in kPa

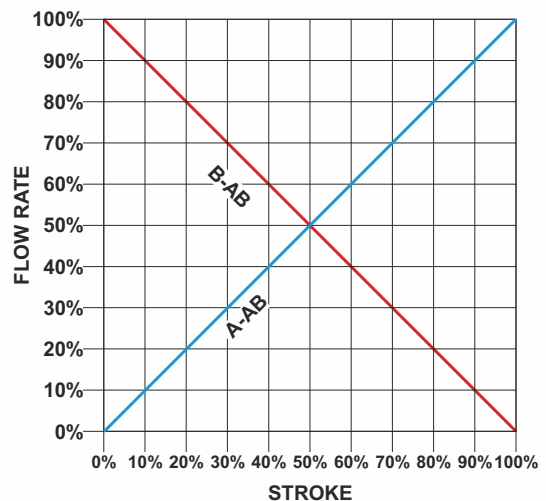
Actuator		Valve Size											
Model	Force	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	
ML6420A	600 N	1000	1000	1000	790	480	260	160	100	-	-	-	
ML6425A/B		kPa	kPa	kPa	kPa	kPa	kPa*	kPa*	kPa*				
ML7420A													
ML7425A/B													
ML6421A	1800 N	-	-	-	1000	1000	1000	650	400	-	-	-	
ML7421A					kPa	kPa	kPa	kPa	kPa				
ML6421B	1800 N	-	-	-	-	-	-	-	-	230	90	90	
ML7421B										kPa	kPa	kPa	

* Preferred solution are the ML6421/ML7421 actuators

Characteristic curves

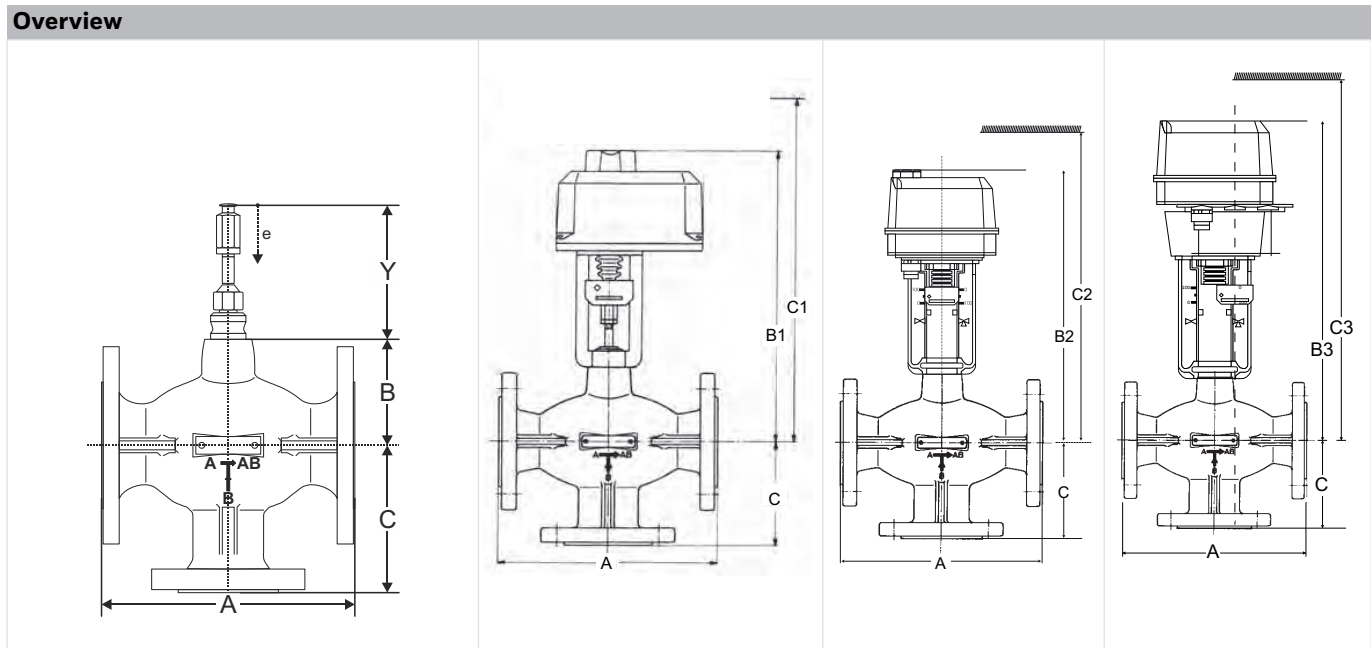


DN15 - DN80



DN100 - DN150

DIMENSIONS



DN	A	B	C	Adjustment dimension (A-AB in closed position)		ML6421A ML7421A		ML6420 ML7420		ML6425 ML7425	
				Y	e	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	184	220	170.5	38	510	615	-	-	-	-
125	400	219	245			545	650	-	-	-	-
150	480	219	270			545	650	-	-	-	-

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

Naming key linear valves

X	F	100	B	160	RA
Type of valve	Type of thread	DN	PN	K _{VS} -value	Special
X = 3-way valve	F = Flanged	15	B = 16	2.5	RA = Diverting
		20		4.0	
		25		6.3	
		32		10	
		40		16	
		50		25	
		65		40	
		80		63	
		100		100	
		125		160	
		150		250	
				360	

3-Way Linear Valve - Flanged

DN	k_{VS}-value	Connection	Nominal pressure	Description	OS.-No.
15	2.5	flanged	PN16	3-way valve, flanged, DN15, PN16, k _{VS} 2.5	XF15B2.5
15	4	flanged	PN16	3-way valve, flanged, DN15, PN16, k _{VS} 4	XF15B4.0
20	6.3	flanged	PN16	3-way valve, flanged, DN20, PN16, k _{VS} 6.3	XF20B6.3
25	10	flanged	PN16	3-way valve, flanged, DN25, PN16, k _{VS} 10	XF25B10
32	16	flanged	PN16	3-way valve, flanged, DN32, PN16, k _{VS} 16	XF32B16
40	25	flanged	PN16	3-way valve, flanged, DN40, PN16, k _{VS} 25	XF40B25
50	40	flanged	PN16	3-way valve, flanged, DN50, PN16, k _{VS} 40	XF50B40
65	63	flanged	PN16	3-way valve, flanged, DN65, PN16, k _{VS} 63	XF65B63
80	100	flanged	PN16	3-way valve, flanged, DN80, PN16, k _{VS} 100	XF80B100
100	160	flanged	PN16	3-way valve, flanged, DN100, PN16, k _{VS} 160	XF100B160
100	160	flanged	PN16	3-way valve, flanged, DN100, PN16, k _{VS} 160	XF100B160RA
125	250	flanged	PN16	3-way valve, flanged, DN125, PN16, k _{VS} 250	XF125B250
125	250	flanged	PN16	3-way valve, flanged, DN125, PN16, k _{VS} 250	XF125B250RA
150	360	flanged	PN16	3-way valve, flanged, DN150, PN16, k _{VS} 360	XF150B360
150	360	flanged	PN16	3-way valve, flanged, DN150, PN16, k _{VS} 360	XF150B360RA

Accessories

Overview associated actuators

Valve stroke	Control signal	
	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: 3-point / floating			
	20 mm effective stroke, 600N	230 V AC	60 s	ML6420A3015
			30 s	ML6420A3031
		24 V AC	60 s	ML6420A3007
			30 s	ML6420A3023
	ML7420A Actuator: modulating 0/2 ... 10 V			
	20 mm effective stroke, 600N	24 V AC	60 s	ML7420A6009
			30 s	ML7420A6017
	ML6421 Actuator: 3-point / floating			
	20 mm effective stroke, 1800N	230 V AC	114 s	ML6421A3013
		24 V AC		ML6421A3005
	38 mm effective stroke, 1800N	230 V AC	210 s	ML6421B3012
		24 V AC		ML6421B3004
	ML7421 Actuator: modulating 0/2 ... 10 V			
	20 mm effective stroke, 1800N	24 V AC	114 s	ML7421A3004
	38 mm effective stroke, 1800N		210 s	ML7421B3003
	ML6425 Actuator: 3-point / floating (spring return)			
	20 mm effective stroke, 600N, spring return extends	230 V AC	108 s	ML6425A3014
		24 V AC		ML6425A3006
	20 mm effective stroke, 600N, spring return retract	230 V AC		ML6425B3021
		24 V AC		ML6425B3005
	ML7425 Actuator: modulating 0/2 ... 10 V (spring return)			
	20 mm effective stroke, 600N, spring return extends	24 V AC	108 s	ML7425A6008
	20 mm effective stroke, 600N, 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 PN = Packing nut SBA = Stem button assy PA = Plug assembly	1 2 3 6	25 40 63 100 160 250 360

Overview	Description	Dimension	Part No.
	1 Stem button assy		
		DN15 - DN32	ASV-SBA-1
		DN40 - DN80	ASV-SBA-2
		DN100 - DN150	ASV-SBA-3
	2 Packing nut		
		DN15 - DN32	ASV-PN-1
		DN40 - DN80	ASV-PN-2
		DN100 - DN150	ASV-PN-6
	3 Packing		
		DN15 - DN32	ASV-PAC-1
		DN40 - DN80	ASV-PAC-2
		DN100 - DN150	ASV-PAC-6
	4 Pin stop plug		
	5 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} 160	ASV-PA-2-160	
	DN125, k _{VS} 250	ASV-PA-2-250	
	DN150, k _{VS} 360	ASV-PA-2-360	



Strandvejen 42 • Saksild • 8300 Odder
 86 62 63 64 • www.automatikcentret.dk
info@automatikcentret.dk



Manufactured for
 and on behalf of
 Pittway Sàrl, Z.A., La Pièce 4
 1180 Rolle, Switzerland

For more information
homecomfort.resideo.com/europe
 Ademco 1 GmbH, Hardhofweg 40,
 74821 MOSBACH, GERMANY
 Phone: +49 6261 810
 Fax: +49 6261 81309

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