

Centra Linear Valve DF..B..CI

2-Way Flanged Linear Valve PN16

APPLICATION

These single-seated valves are used for modulating control of hot/chilled water or steam in heating, ventilating and air conditioning systems. Not suitable for use in open-circuit systems with oxygen enrichment.

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

SPECIAL FEATURES

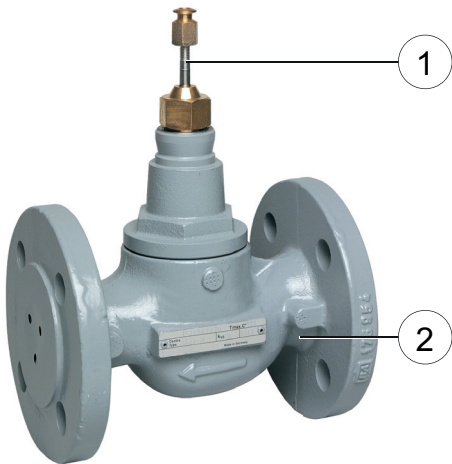
- Cast iron body with flanged end connections
- Low seat leakage rate
- Metal-to-metal seating for long life span
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control



TECHNICAL DATA

Media	
Medium:	Water or glycol-water mixture, according to VDI 2035
Operating temperatures and operating pressure	
DN15 to DN80	2...120 °C: max. 1600 kPa
	120...150 °C: max. 1400 kPa
	150...170 °C: max. 1370 kPa
DN100 to DN150	2...120 °C: max. 1600 kPa
	120...150 °C: max. 1440 kPa
	150...200 °C: max. 1280 kPa
Maximum temperature differential in alternating hot/cold water use:	60 K
Connection/Sizes	
Connection:	Flanged per ISO 7005-2
Specifications	
Action:	Stem down to close
Nominal pressure rating:	PN 16
Flow characteristic:	Equal percentage
Rangeability:	50:1
Leakage rate:	≤0.05 % of k_{VS} up to DN50 ≤0.1 % of k_{VS} DN65 to DN150
Stroke:	20 mm (DN15 to DN 80) 38 mm (DN100 to DN150)
Packing:	Spring loaded PTFE 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
		Plug	Stainless steel, skirt-guided

INSTALLATION GUIDELINES

Setup requirements

- Water should meet VDI 2035 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

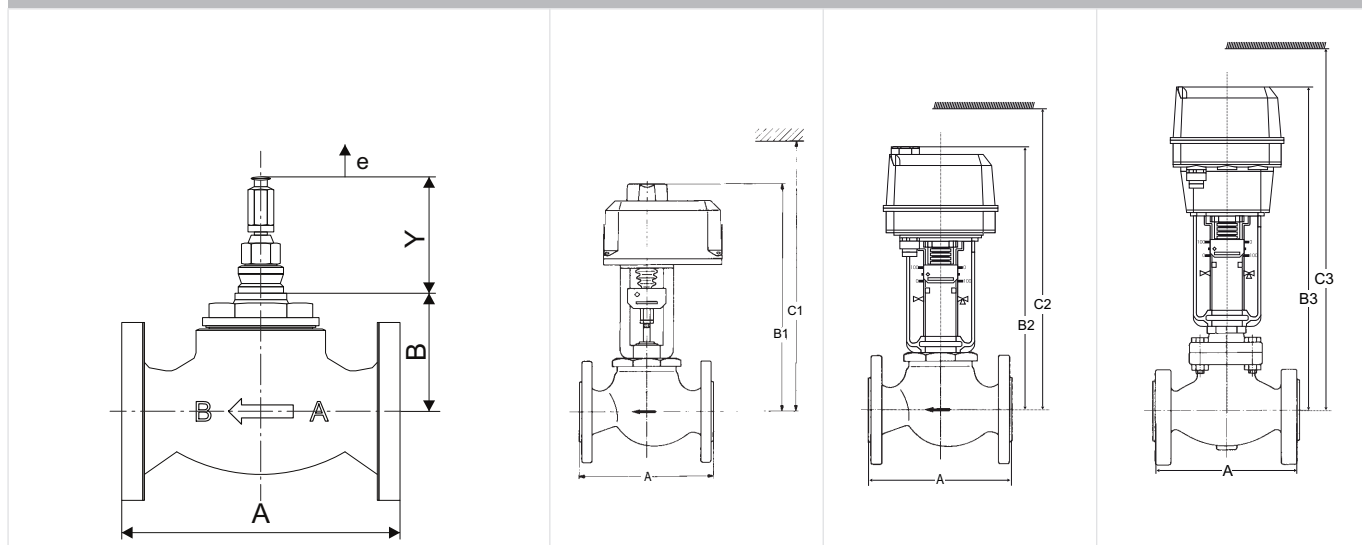
TECHNICAL CHARACTERISTICS

Close off pressure ratings in kPa

Actuator		Valve Size									
Model	Force	DN15 k _{vs} 0.25 - 1.0	DN15 k _{vs} 2.5 - 4.0	DN 20/25	DN32	DN40	DN50	DN65	DN80	DN100	DN 125/150
ML6420A, ML6425A/B ML7420A, ML7425A/B	600 N	1600 kPa	1000 kPa	1000 kPa	600 kPa	350 kPa	200 kPa	120 kPa	50 kPa	-	-
ML6421A/B, ML7421A/B	1800 N	1600 kPa	1600 kPa	1600 kPa	1600 kPa	1300 kPa	750 kPa	500 kPa	230 kPa	230 kPa	90 kPa

DIMENSIONS

Overview



DN	A	B	Adjustment dimension (Valve in closed position)	Stroke e	ML6421A ML7421A		ML6420 ML7420		ML6425 ML7425	
			Y		B1	C1	B2	C2	B3	C3
15	130	72	89	20	340	435	315	395	360	440
20	150	72	89		340	435	315	395	360	440
25	160	72	89		340	435	315	395	360	440
32	180	89	89		355	450	335	415	375	455
40	200	93	89		360	455	335	415	380	460
50	230	93	89		360	455	335	415	380	460
65	290	112	89		380	475	355	435	400	480
80	310	114	89		380	475	360	440	400	480
					ML6421B ML7421B					
100	350	150	133	38	480	580	-	-	-	-
125	400	157	133		485	590	-	-	-	-
150	480	157	133		485	590	-	-	-	-

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice.
When ordering, please always state the type, the ordering or the part number.

Naming key linear valves

D	F	15	B	0.25	CI
Type of valve	Type of thread	DN	PN	k _{VS} -value	Special
D = 2-way valve	F = Flanged	15	B = 16	0.25	CI = Casted Iron (GG)
		20		0.4	
		25		0.63	
		32		1.0	
		40		1.6	
		50		2.5	
		65		4.0	
		80		6.3	
		100		10	
		125		16	
		150		25	
				40	
				63	
				100	
				160	
				250	
				360	

2-Way Linear Valve – Flanged / Cast Iron

DN	k _{VS} -value	Connection	Nominal pressure	Description	OS.-No.
15	0.25	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 0.25, casted iron	DF15B0.25CI
15	0.4	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 0.4, casted iron	DF15B0.4CI
15	0.63	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 0.63, casted iron	DF15B0.63CI
15	1.0	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 1.0, casted iron	DF15B1.0CI
15	1.6	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 1.6, casted iron	DF15B1.6CI
15	2.5	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 2.5, casted iron	DF15B2.5CI
15	4.0	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 4.0, casted iron	DF15B4.0CI
20	4.0	flanged	PN16	2-way valve, flanged, DN20, PN16, k _{VS} 4.0, casted iron	DF20B4.0CI
20	6.3	flanged	PN16	2-way valve, flanged, DN20, PN16, k _{VS} 6.3, casted iron	DF20B6.3CI
25	10	flanged	PN16	2-way valve, flanged, DN25, PN16, k _{VS} 10, casted iron	DF25B10CI
32	16	flanged	PN16	2-way valve, flanged, DN32, PN16, k _{VS} 16, casted iron	DF32B16CI
40	25	flanged	PN16	2-way valve, flanged, DN40, PN16, k _{VS} 25, casted iron	DF40B25CI
50	40	flanged	PN16	2-way valve, flanged, DN50, PN16, k _{VS} 40, casted iron	DF50B40CI
65	63	flanged	PN16	2-way valve, flanged, DN65, PN16, k _{VS} 63, casted iron	DF65B63CI
80	100	flanged	PN16	2-way valve, flanged, DN80, PN16, k _{VS} 100, casted iron	DF80B100CI
100	160	flanged	PN16	2-way valve, flanged, DN100, PN16, k _{VS} 160, casted iron	DF100B160CI
125	250	flanged	PN16	2-way valve, flanged, DN125, PN16, k _{VS} 250, casted iron	DF125B250CI
150	360	flanged	PN16	2-way valve, flanged, DN150, PN16, k _{VS} 360, casted iron	DF150B360CI

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	-PAC	-4	-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	4	63
	PA = Plug assembly	6	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 - DN50	ASV-PAC-2
		DN100 - DN150	ASV-PAC-6
	4 Plug assembly		
		DN25, k _{VS} 25	ASV-PA-4-25
		DN40, k _{VS} 40	ASV-PA-4-40
		DN65, k _{VS} 63	ASV-PA-4-63
		DN80, k _{VS} 100	ASV-PA-4-100
		DN100, k _{VS} 160	ASV-PA-4-160
		DN125, k _{VS} 250	ASV-PA-4-250
		DN150, k _{VS} 360	ASV-PA-4-360