

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...

In combination with actuators ML6425A/ML7425A the DF..B..CI-SV safety linear valves are approved according DIN EN 14597 and marked with CE0035 e.g. for district heating application.

SPECIAL FEATURES

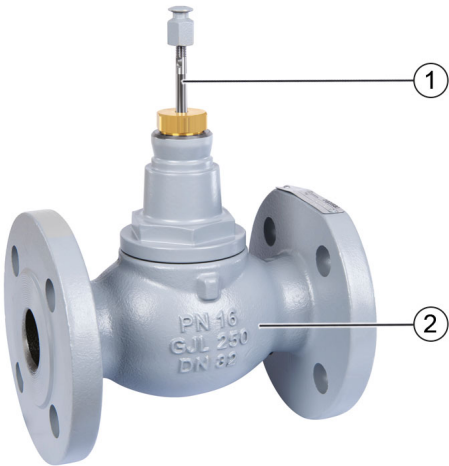
- Cast iron body with flanged end connections
- Low seat leakage rate
- Metal-to-metal seating for long life span
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control
- Direct-coupled electric for easy mounting
- Special versions are approved according to DIN EN 14597 in combination with dedicated actuators



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

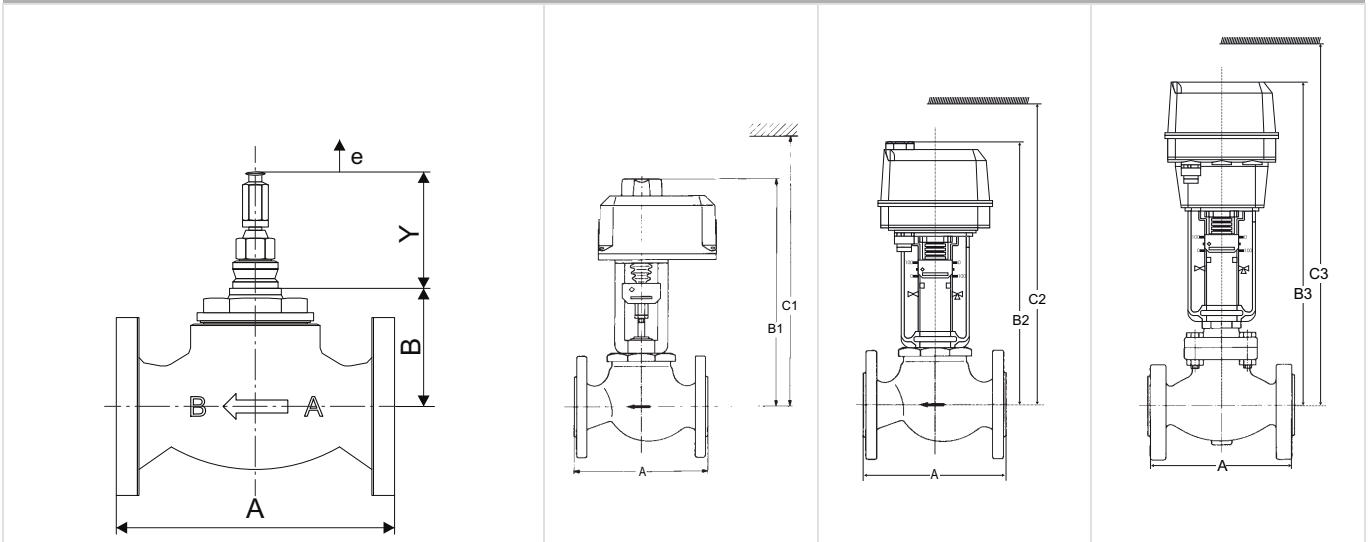
TECHNICAL CHARACTERISTICS

Close off pressure ratings in kPa

Actuator		Valve Size										
Model	Force	DN15 k _{vs} 0.25 - 1.0	DN15 k _{vs} 1.6 - 4.0	DN20/ DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125/ DN150	
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	1800N	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	-SV
Type of valve	Type of thread	DN	PN	k _{VS} -value	Special	Special (optional)
D = 2-way valve	F = Flanged	15 20 25 32 40 50 65 80 100 125 150	B = 16	0.25 0.4 0.63 1.0 1.6 2.5 4.0 6.3 10 16 25 40 63 100 160 250 360	CI = Casted Iron (GG)	SV = Safety valve

2-Way Linear Valve - Flanged / Casted 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

2-Way Linear Valve - Flanged / Casted Iron safety valves according DIN EN 14597

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, SV	DF15B0.25CI-SV
15	0.4	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 0.4, SV	DF15B0.4CI-SV
15	0.63	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 0.63, SV	DF15B0.63CI-SV
15	1.0	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 1.0, SV	DF15B1.0CI-SV
15	1.6	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 1.6, SV	DF15B1.6CI-SV
15	2.5	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 2.5, SV	DF15B2.5CI-SV
15	4.0	flanged	PN16	2-way valve, flanged, DN15, PN16, k _{VS} 4.0, SV	DF15B4.0CI-SV
20	4.0	flanged	PN16	2-way valve, flanged, DN20, PN16, k _{VS} 4.0, SV	DF20B4.0CI-SV
20	6.3	flanged	PN16	2-way valve, flanged, DN20, PN16, k _{VS} 6.3, SV	DF20B6.3CI-SV
25	10	flanged	PN16	2-way valve, flanged, DN25, PN16, k _{VS} 10, SV	DF25B10CI-SV
32	16	flanged	PN16	2-way valve, flanged, DN32, PN16, k _{VS} 16, SV	DF32B16CI-SV
40	25	flanged	PN16	2-way valve, flanged, DN40, PN16, k _{VS} 25, SV	DF40B25CI-SV
50	40	flanged	PN16	2-way valve, flanged, DN50, PN16, k _{VS} 40, SV	DF50B40CI-SV

Note: Only in combination with the linear actuators ML6425A3014, ML6425A3006 and ML7425A6008.

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			
		24 V AC	108 s	ML7425A6008	
				ML7425B6007	

Spare Parts

Naming key spare parts

ASV	-PA	-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
		11	160
			250
			360

Overview	Description	Dimension	Part No.
	1 Stem button assy		
		DN15 - DN32	ASV-SBA-1
		DN40 - DN150	ASV-SBA-2
	2 Packing nut		
		DN15 - DN32	ASV-PN-1
		DN40 - DN80	ASV-PN-2
		DN100 - DN150	ASV-PN-11
	3 Packing		
		DN15 - DN32	ASV-PAC-1
		DN40 - DN50	ASV-PAC-2
		DN100 - DN150	ASV-PAC-6
	4 Plug assembly		
		DN40, k _{VS} 25	ASV-PA-4-25
		DN50, 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



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