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Centra Linear Valve
DE/DI

2-Way Linear Valves – External/Internal Threaded

APPLICATION

Single seated control or shut-off 2-way linear valve for:

- hot water
- chilled water
- saturated steam (for valves with stainless steel plug)
- superheated steam (for valves with stainless steel plug)

in heating, ventilation, air conditioning systems and open circuits.

Operated by

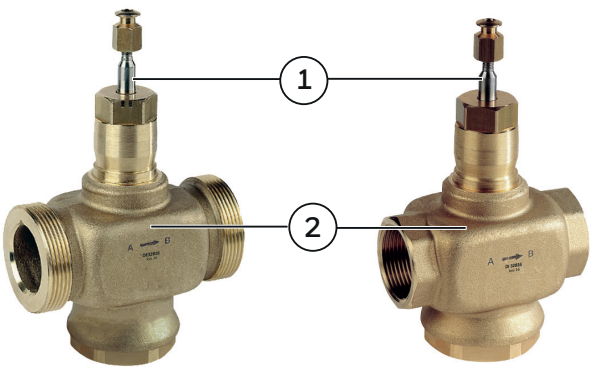- electric linear actuators series ML64... and ML74...

SPECIAL FEATURES

- Brass body with external threaded end connections (type DE)
- Brass body with internal threaded end connections (type DI)
- Low seat leakage rate
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control
- Constant total flow throughout full plug travel

DE   DI
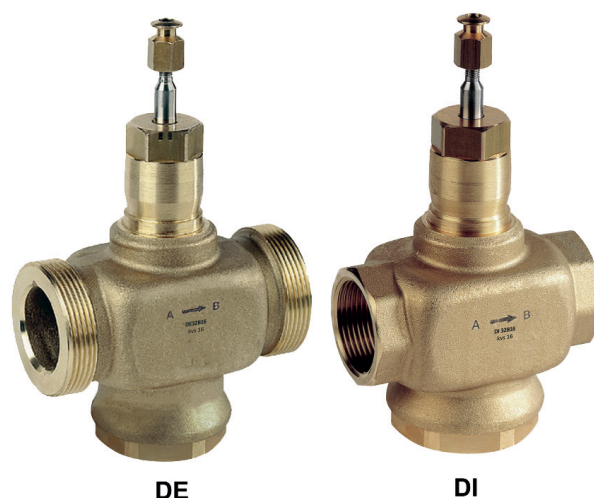
TECHNICAL DATA

Media	
Medium:	Water or glycol-water mixture, according to VDI 2035
Operating temperatures and operating pressure	
2 to 120 °C:	max. 1600 kPa
120 to 170 °C:	max. 1490 kPa
Max. temperature differential in alternating hot/cold water use:	60 K
Connection/Sizes	
Pipe connection:	Internal threading as per ISO 228 External threading as per DIN 2999
Specifications	
Action:	Stem up to close
Nominal pressure rating:	PN16
Flow characteristic:	Equal percentage
Rangeability:	50:1
Leakage rate:	≤0.05% of k_{vs}
Stroke:	20 mm

CONSTRUCTION

Overview		Components	Materials
	1	Stem	Stainless steel
	2	Valve body	Brass
	Not depicted components:		
		Seat	Stainless steel
		Plug	Brass / Stainless
		Packing	Spring-loaded carbon fiber reinforced PTFE V-rings

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

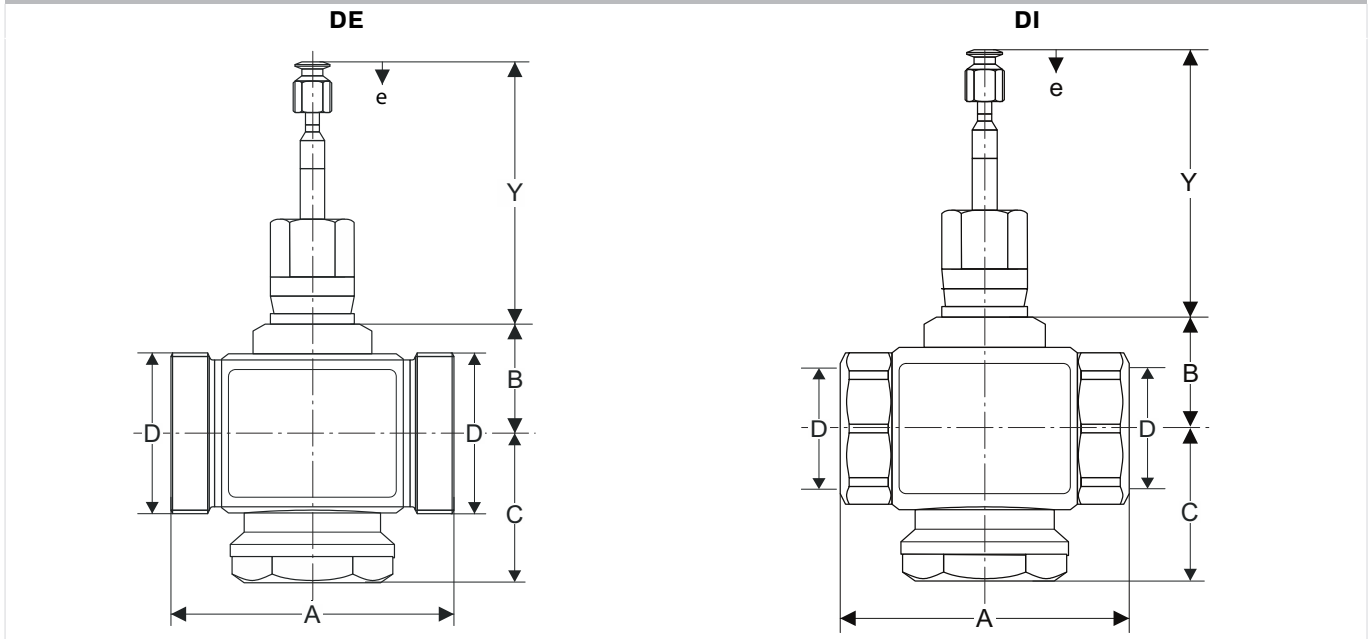• The installation of a strainer is strongly recommended

TECHNICAL CHARACTERISTICS

Close off pressure ratings in kPa

Actuator		Valve Size					
Model	Force	DN15	DN20	DN25	DN32	DN40	DN50
ML6420, ML6425 ML7420, ML7425	600 N	1600 kPa	1000 kPa	1000 kPa	700 kPa	460 kPa	260 kPa
ML6421, ML7421	1800 N	–	–	1600 kPa	1600 kPa	1300 kPa	850 kPa

DIMENSIONS

Overview

DN	D	A	B	C	Stem up Y	Stroke e
DE						
15	G 1$^1/_8$"	80	40	55	89	20
20	G 1$^1/_4$"	90	40	55		
25	G 1$^1/_2$"	110	40	55		
32	G 2"	120	40	55		
40	G 2$^1/_4$"	130	40	60		
50	G 2$^3/_4$"	150	40	65		
DI						
15	Rp $^1/_2$"	83	40	55	89	20
20	Rp $^3/_4$"	83	40	55		
25	Rp 1"	103	40	55		
32	Rp 1$^1/_4$"	106	40	55		
40	Rp 1$^1/_2$"	120	40	66.5		
50	Rp 2"	134	40	66.5		

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	I	15	B	0.63	SS
2-way valve	Type of thread	DN (mm)	PN (bar)	K$_{VS}$-value	Special
D = 2-way valve	E = External I = Internal	15 20 25 32 40 50	B = 16	0.63 1 1.6 2.5 4 6.3 10 16 25 40	SS = Stainless plug

Options

Valve with external threads (DE)

DN	k$_{vs}$–value	Connection	Nominal pressure	Description	OS.–No.
15	0.63			2-way valve, ext. threat, DN15, PN16, kvs 0.63	DE15B0.63
15	1			2-way valve, ext. threat, DN15, PN16, kvs 1.0	DE15B1.0
15	1.6			2-way valve, ext. threat, DN15, PN16, kvs 1.6	DE15B1.6
15	2.5			2-way valve, ext. threat, DN15, PN16, kvs 2.5	DE15B2.5
15	4.0	External thread	PN16	2-way valve, ext. threat, DN15, PN16, kvs 4.0	DE15B4.0
20	6.3			2-way valve, ext. threat, DN20, PN16, kvs 6.3	DE20B6.3
25	10			2-way valve, ext. threat, DN25, PN16, kvs 10	DE25B10
32	16			2-way valve, ext. threat, DN32, PN16, kvs 16	DE32B16
40	25			2-way valve, ext. threat, DN40, PN16, kvs 25	DE40B25
50	40			2-way valve, ext. threat, DN50, PN16, kvs 40	DE50B40
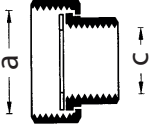
Valve with internal threads (DI)

DN	k$_{vs}$–value	Connection	Nominal pressure	Description	OS.–No.
15	0.63			2-way valve, int. threat, DN15, PN16, kvs 0.63	DI15B0.63
15	1			2-way valve, int. threat, DN15, PN16, kvs 1.0	DI15B1.0
15	1.6			2-way valve, int. threat, DN15, PN16, kvs 1.6	DI15B1.6
15	2.5			2-way valve, int. threat, DN15, PN16, kvs 2.5	DI15B2.5
15	4.0			2-way valve, int. threat, DN15, PN16, kvs 4.0	DI15B4.0
20	6.3			2-way valve, int. threat, DN20, PN16, kvs 6.3	DI20B6.3
25	10			2-way valve, int. threat, DN25, PN16, kvs 10	DI25B10
32	16			2-way valve, int. threat, DN32, PN16, kvs 16	DI32B16
40	25			2-way valve, int. threat, DN40, PN16, kvs 25	DI40B25
50	40			2-way valve, int. threat, DN50, PN16, kvs 40	DI50B40
15	0.63			2-way valve, int. threat, DN15, PN16, kvs 0.63, stainless plug	DI15B0.63SS
15	1			2-way valve, int. threat, DN15, PN16, kvs 1.0, stainless plug	DI15B1.0SS
15	1.6	Internal thread	PN16	2-way valve, int. threat, DN15, PN16, kvs 1.6, stainless plug	DI15B1.6SS
15	2.5			2-way valve, int. threat, DN15, PN16, kvs 2.5, stainless plug	DI15B2.5SS
15	4.0			2-way valve, int. threat, DN15, PN16, kvs 4.0, stainless plug	DI15B4.0SS
20	6.3			2-way valve, int. threat, DN20, PN16, kvs 6.3, stainless plug	DI20B6.3SS
25	10			2-way valve, int. threat, DN25, PN16, kvs 10, stainless plug	DI25B10SS
32	16			2-way valve, int. threat, DN32, PN16, kvs 16, stainless plug	DI32B16SS
40	25			2-way valve, int. threat, DN40, PN16, kvs 25, stainless plug	DI40B25SS
50	40			2-way valve, int. threat, DN50, PN16, kvs 40, stainless plug	DI50B40SS

Accessories

	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
	ML7421	**Actuator: modulating 0/2 ... 10 V**			
		20 mm effective stroke, 1800N	24 V AC	114 s	ML7421A3004
	ML6425	**Actuator: 3-point / floating (spring return)**			
		20 mm effective stroke, 600N, spring return direct	230 V AC	108 s	ML6425A3014
			24 V AC		ML6425A3006
		20 mm effective stroke, 600N, spring return reverse	230 V AC		ML6425B3021
			24 V AC		ML6425B3005
	ML7425	**Actuator: modulating 0/2 ... 10 V (spring return)**			
		20 mm effective stroke, 600N	24 V AC	108 s	ML7425A6008
		20 mm effective stroke, 600N, spring return reverse			ML7425B6007

Only for DE
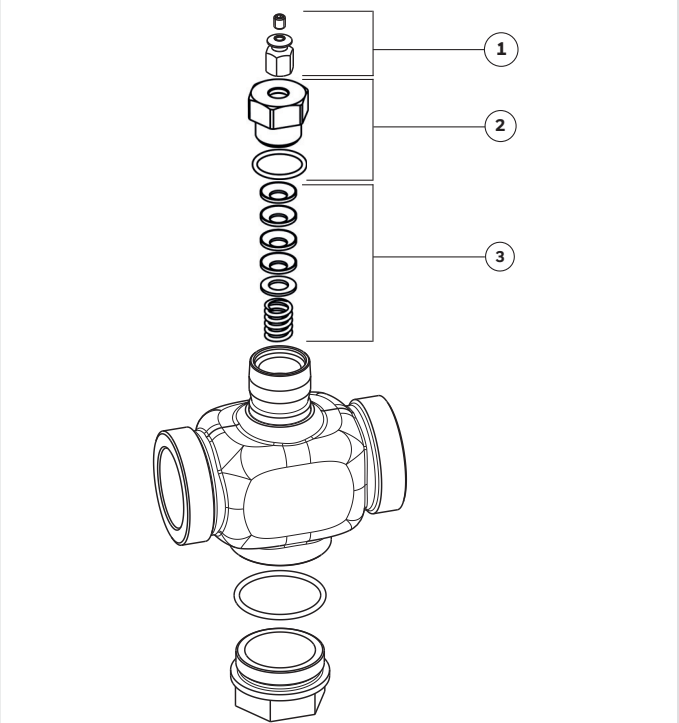
	Description		Dimension		Part No.
	ASV-CS-xx-I-F	**Flat connection set**			
		consisting of	DN15	a: G $1^{1}/_{8}$" c: G $^{1}/_{2}$"	ASV-CS-15-I-F
		• 1 union nut	DN20	a: G $1^{1}/_{4}$" c: G $^{3}/_{4}$"	ASV-CS-20-I-F
		• 1 tailpiece	DN25	a: G $1^{1}/_{2}$" c: G 1"	ASV-CS-25-I-F
		• 1 gasket	DN32	a: G 2 c: G $1^{1}/_{4}$"	ASV-CS-32-I-F
			DN40	a: G $2^{1}/_{4}$" c: G $1^{1}/_{2}$"	ASV-CS-40-I-F
			DN50	a: G $2^{3}/_{4}$" c: G 2"	ASV-CS-50-I-F

Naming key accessories

ASV		-CS	-15	-I	-F
Accessories and spares for valves		Connection Set	Type	Type of thread	
ASV	= Accessories and spares for valves	CS = Connection Set	15 20 25 32 40 50	I = Internal Thread	F = Flat Sealing

DN	Description	OS–No.
DN15	Connection set type 13, DN15, internal thread, flat	ASV-CS-15-I-F
DN20	Connection set type 13, DN20, internal thread, flat	ASV-CS-20-I-F
DN25	Connection set type 13, DN25, internal thread, flat	ASV-CS-25-I-F
DN32	Connection set type 13, DN32, internal thread, flat	ASV-CS-32-I-F
DN40	Connection set type 13, DN40, internal thread, flat	ASV-CS-40-I-F
DN50	Connection set type 13, DN50, internal thread, flat	ASV-CS-50-I-F

Spare Parts

Overview

	Description	Dimension	Part No.
1	**Stem button assy**		
		DN15 - DN50	ASV-SBA-1
2	**Packing nut**		
		DN15 - DN50	ASV-PN-7
3	**Packing**		
		DN15 - DN50	ASV-PAC-2

Naming key spare parts

ASV		-SBA	-1
Accessories and spares for valves		Range	Type
ASV = Accessories and spares for valves		PAC = Packing, complete PN = Packing, nut SBA = Stem button assy	1 2 7

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