

Centra

XE/XI

3-way Linear Valve

Application

Single seated control or shut-off 3-way linear valve for:

- Hot water
- Chilled water

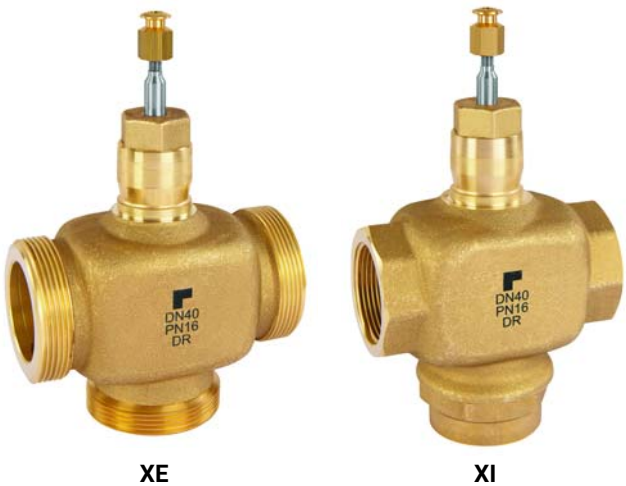
in heating, ventilation, air conditioning systems, and open circuits.

Operated by

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

Special Features

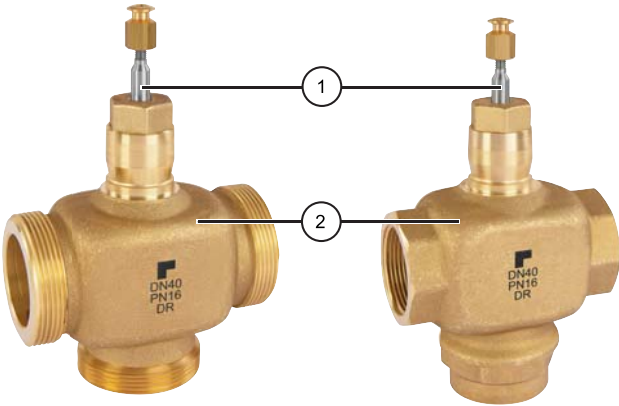
- Brass body with external threaded end connections (type XE)
- Brass body with internal threaded end connections (type XI)
- Low seat leakage rate
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control
- Constant total flow throughout full plug travel



Technical Data

Media	
Medium:	Water with max. 50 % glycol 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 port A-AB
Nominal pressure rating:	PN16
Flow characteristic:	equal percentage: port A-AB linear: port B-AB
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	DN15: stainless steel DN20...50: body integrated
		Plug	Brass
		Packing	Spring-loaded carbon fiber reinforced PTFE V-rings

Installation Guidelines

Setup requirements

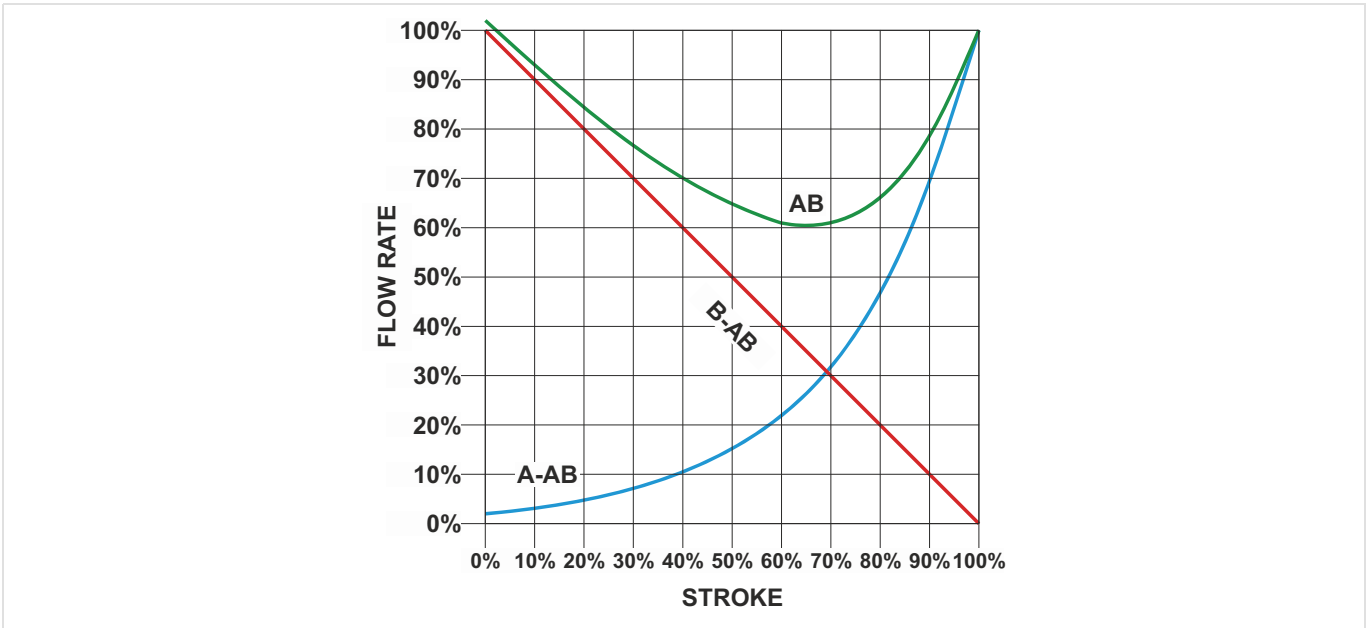
- Do not install valve with stem below the horizontal
- Fluid flow must correspond with the arrow direction on the valve body
- The installation of a strainer is strongly recommended

Technical Characteristics

Close off pressure ratings in kPa

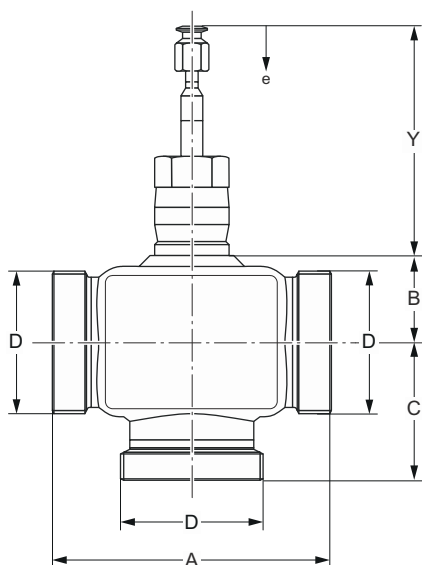
Actuator		Valve Size					
Model	Force	DN15	DN20	DN25	DN32	DN40	DN50
ML6420, ML6425 ML7420, ML7425	600 N	1600 kPa	1000 kPa	1000 kPa	700 kPa	460 kPa	260 kPa
ML6421, ML7421	1800 N	-	-	1600 kPa	1600 kPa	1300 kPa	850 kPa

Characteristic curves

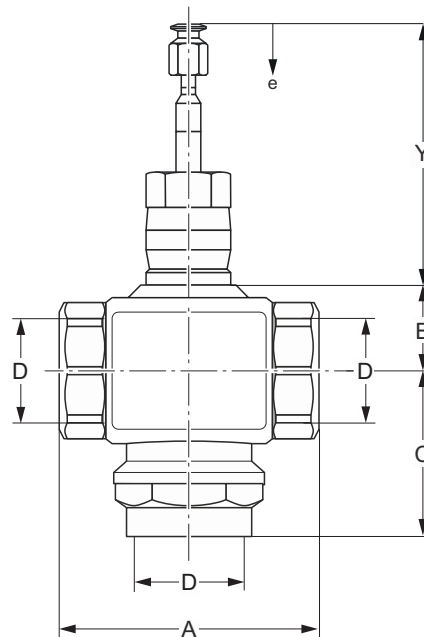


Dimensions

Overview



XE



XI

DN	D	A	B	C	Stem up	Stroke
					Y	e
XE						
15	G 1 ¹ / ₈ "	80	40	55	107	20
20	G 1 ¹ / ₄ "	80	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		
XI						
15	Rp 1 ¹ / ₂ "	83	40	65	107	20
20	Rp ³ / ₄ "	83	40	65		
25	Rp 1"	103	40	66.5		
32	Rp 1 ¹ / ₄ "	106	40	72.5		
40	Rp 1 ¹ / ₂ "	120	40	77		
50	Rp 2"	134	40	83.5		

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

X	E	15	B	2.5
3-way valve	Type of thread	DN (mm)	PN (bar)	Kvs-value
X = 3-way valve	E = External I = Internal	15	B = 16	2.5
		20		4.0
		25		6.3
		32		10
		40		16
		50		25
				40

Options

Valve with external threads (XE)

DN	k _{vs} -value	Connection	Nominal pressure	Description	Item No.
15	2.5	External thread	PN16	3-way valve, ext. threat, DN15, PN16, kvs2.5	XE15B2.5
15	4.0			3-way valve, ext. threat, DN15, PN16, kvs4.0	XE15B4.0
20	6.3			3-way valve, ext. threat, DN20, PN16, kvs6.3	XE20B6.3
25	10			3-way valve, ext. threat, DN25, PN16, kvs10	XE25B10
32	16			3-way valve, ext. threat, DN32, PN16, kvs16	XE32B16
40	25			3-way valve, ext. threat, DN40, PN16, kvs25	XE40B25
50	40			3-way valve, ext. threat, DN50, PN16, kvs40	XE50B40

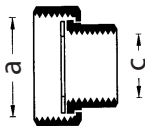
Valve with internal threads (XI)

DN	k _{vs} -value	Connection	Nominal pressure	Description	Item No.
15	2.5	Internal thread	PN16	3-way valve, int. threat, DN15, PN16, kvs2.5	XI15B2.5
15	4.0			3-way valve, int. threat, DN15, PN16, kvs4.0	XI15B4.0
20	6.3			3-way valve, int. threat, DN20, PN16, kvs6.3	XI20B6.3
25	10			3-way valve, int. threat, DN25, PN16, kvs10	XI25B10
32	16			3-way valve, int. threat, DN32, PN16, kvs16	XI32B16
40	25			3-way valve, int. threat, DN40, PN16, kvs25	XI40B25
50	40			3-way valve, int. threat, DN50, PN16, kvs40	XI50B40

Accessories

	Description	Voltage	Runtime	Item 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: 20 mm stroke, 1800 N, 3-point, floating		
		230 V AC	114 s	ML6421A3013
	ML7421	Actuator: 20 mm stroke, 1800 N, 0/2 ... 10 V, modulating		
		24 V AC	114 s	ML7421A3004
	ML6425	Actuator: 20 mm stroke, 600 N, 3-point, floating		
	Spring return extends	230 V AC	108 s	ML6425A3014
		24 V AC		ML6425A3006
		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

Only for XE

	Description	Dimension	Item No.
	ASV-CS-xx-I-F	Flat connection set	
	consisting of • 1 union nut • 1 tailpiece • 1 gasket	DN15	a: G 1 ¹ / ₈ " c: Rp 1 ¹ / ₂ "
		DN20	a: G 1 ¹ / ₄ " c: Rp 3 ³ / ₄ "
		DN25	a: G 1 ¹ / ₂ " c: Rp 1"
		DN32	a: G 2 c: Rp 1 ¹ / ₄ "
		DN40	a: G 2 ¹ / ₄ " c: Rp 1 ¹ / ₂ "
		DN50	a: G 2 ³ / ₄ " c: Rp 2"

Naming key accessories

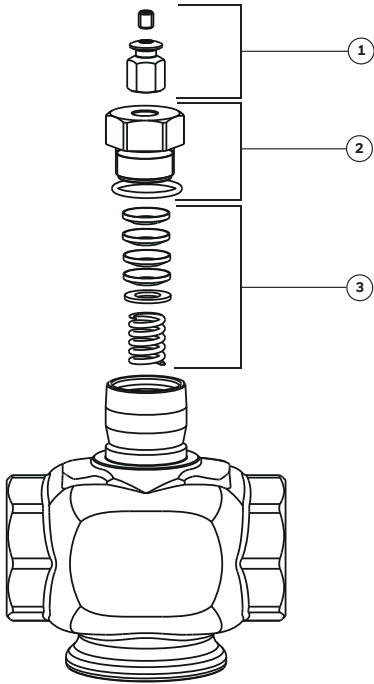
ASV	-CS	-15	-I	-F
Accessories and spares for valves	Connection Set	Type	Type of thread	
ASV = Accessories and spares for valves	CS = Connection Set	15	I = Internal Thread	F = Flat Sealing
		20		
		25		
		32		
		40		
		50		

DN	Description	Item No.
DN15	Connection set, internal thread Rp 1 ¹ / ₂ , G 1 ¹ / ₈ , flat	ASV-CS-15-I-F
DN20	Connection set, internal thread Rp 3 ³ / ₄ , G 1 ¹ / ₄ , flat	ASV-CS-20-I-F
DN25	Connection set, internal thread Rp 1, G 1 ¹ / ₂ , flat	ASV-CS-25-I-F
DN32	Connection set, internal thread Rp 1 ¹ / ₄ , G 2, flat	ASV-CS-32-I-F
DN40	Connection set, internal thread Rp 1 ¹ / ₂ , G 2 ¹ / ₄ , flat	ASV-CS-40-I-F
DN50	Connection set, internal thread Rp 2, G 2 ³ / ₄ , flat	ASV-CS-50-I-F

Spare Parts

Naming key spare parts

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

Overview	Description	Dimension	Item 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