

Centra

XE/XI

3-Way Linear Valve

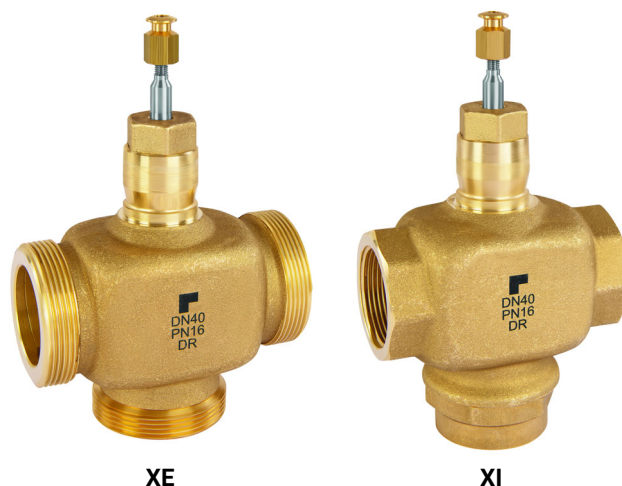
Application

These single-seated valves are used for modulating control of hot/chilled water or steam in heating, ventilating and air conditioning systems.

The valves, depending on stroke, can be operated by linear actuators series MLLYD060/MLHFD060, ML6425... and ML7425...

Special Features

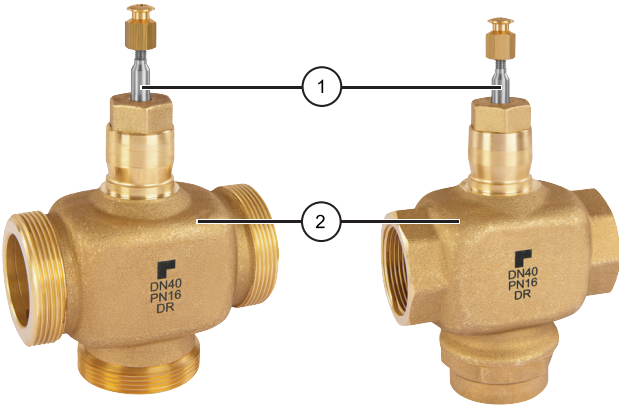
- Brass body with external threaded end connections (type XE)
- Brass body with internal threaded end connections (type XI)
- Low seat leakage rate
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control
- Constant total flow throughout full plug travel



Technical Data

Medium	
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:	PN 16
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	DN 15: stainless steel DN 20 - DN 50: body integrated
		Plug	Brass
		Packing	Spring-loaded carbon fiber reinforced PTFE V-rings

Installation Guidelines

Setup requirements

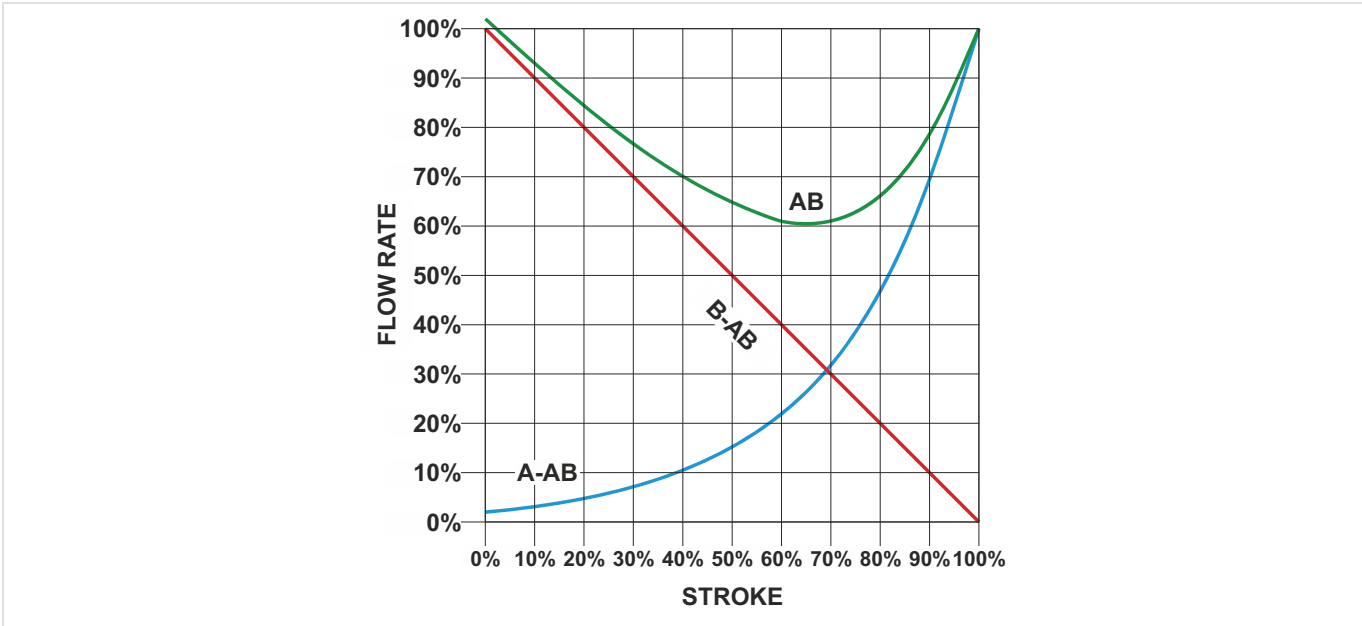
- Water should meet VDI 2035 requirements
- Do not install valve with stem below the horizontal
- Fluid flow must correspond with the arrow direction on the valve body
- The installation of a strainer is strongly recommended
- The valve has to be installed stress-free
- Water hammer have to be avoided

Technical Characteristics

Close off pressure ratings in kPa

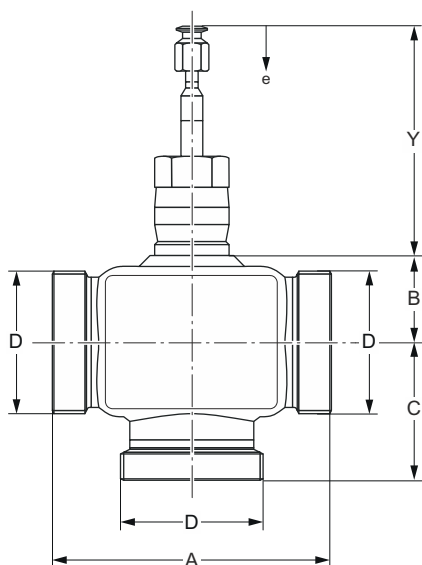
Actuator		Valve Size					
Model	Force	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
MLLYD060, MLHFD060, ML6425, ML7425	600 N	1600 kPa	1000 kPa	1000 kPa	700 kPa	460 kPa	260 kPa

Characteristic curves

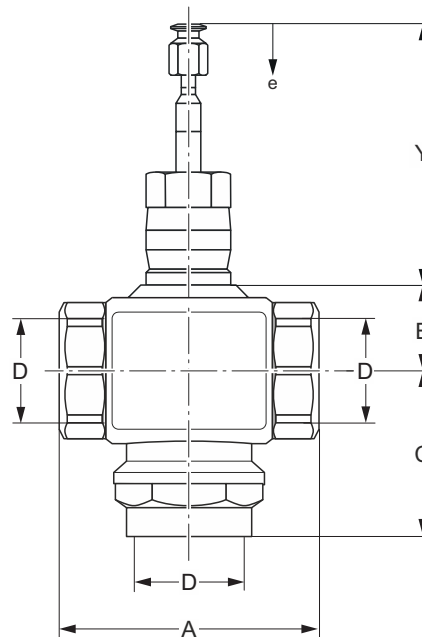


Dimensions

Overview



XE



XI

DN	D	A	B	C	Stem up	Stroke
					Y	e
XE						
DN 15	G 1 ¹ / ₈ "	80	40	55	107	20
DN 20	G 1 ¹ / ₄ "	80	40	55		
DN 25	G 1 ¹ / ₂ "	110	40	55		
DN 32	G 2"	120	40	55		
DN 40	G 2 ¹ / ₄ "	130	40	60		
DN 50	G 2 ³ / ₄ "	150	40	65		
XI						
DN 15	Rp 1 ¹ / ₂ "	83	40	65	107	20
DN 20	Rp ³ / ₄ "	83	40	65		
DN 25	Rp 1"	103	40	66.5		
DN 32	Rp 1 ¹ / ₄ "	106	40	72.5		
DN 40	Rp 1 ¹ / ₂ "	120	40	77		
DN 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.

Naming key linear valves

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

Options

Valve with external threads (XE)

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

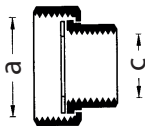
Valve with internal threads (XI)

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

Accessories

	Description	Voltage	Runtime	Item No.
	MLLYD060 Actuator: 20 mm stroke, 600 N, 0-10 V (modulating), 3-point (floating), 2-point			
		24 V AC/DC	80 s (120 s)	MLLYD060-00
	MLHFD060 Actuator: 20 mm stroke, 600 N, 3-point (floating), 2-point			
		230 V AC	120 s (240 s)	MLHFD060-00
	ML6425 Spring-return 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 Spring-return 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	DN 15	a: G 1 ¹ / ₈ " c: Rp 1 ¹ / ₂ "
	• 1 union nut	DN 20	a: G 1 ¹ / ₄ " c: Rp 3 ³ / ₄ "
	• 1 tailpiece	DN 25	a: G 1 ¹ / ₂ " c: Rp 1"
	• 1 gasket	DN 32	a: G 2" c: Rp 1 ¹ / ₄ "
		DN 40	a: G 2 ¹ / ₄ " c: Rp 1 ¹ / ₂ "
		DN 50	a: G 2 ³ / ₄ " c: Rp 2"

Naming key accessories

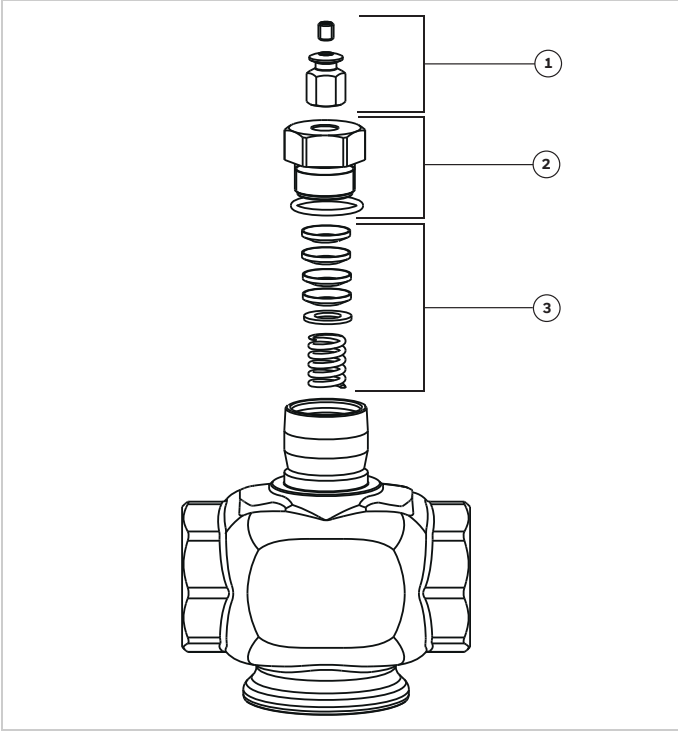
ASV	-CS	-15	-I	-F
Accessories and spares for valves	Connection Set	Type	Type of thread	
ASV = Accessories and spares for valves	CS = Connection Set	15 20 25 32 40 50	I = Internal Thread	F = Flat Sealing

DN	Description	Item No.
DN 15	Connection set, internal thread Rp 1 ¹ / ₂ , G 1 ¹ / ₈ , flat	ASV-CS-15-I-F
DN 20	Connection set, internal thread Rp 3 ³ / ₄ , G 1 ¹ / ₄ , flat	ASV-CS-20-I-F
DN 25	Connection set, internal thread Rp 1, G 1 ¹ / ₂ , flat	ASV-CS-25-I-F
DN 32	Connection set, internal thread Rp 1 ¹ / ₄ , G 2, flat	ASV-CS-32-I-F
DN 40	Connection set, internal thread Rp 1 ¹ / ₂ , G 2 ¹ / ₄ , flat	ASV-CS-40-I-F
DN 50	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		
		DN 15 - DN 50	ASV-SBA-1
	2 Packing nut		
		DN 15 - DN 50	ASV-PN-7
	3 Packing		
		DN 15 - DN 50	ASV-PAC-2