

Centra XF-A

3-Way Flanged Linear Valve PN 6

Application

These three-port mixing valves are used for modulating control of hot/chilled water or steam in heating, ventilation, and air conditioning systems.

The valves, depending on stroke, can be operated by linear actuators series MLLYD060/MLHFD060, MLLYD180/MLHYD180, MLLYE180/MLHYE180, ML6425... and ML7425...

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
- Constant total flow throughout full plug travel

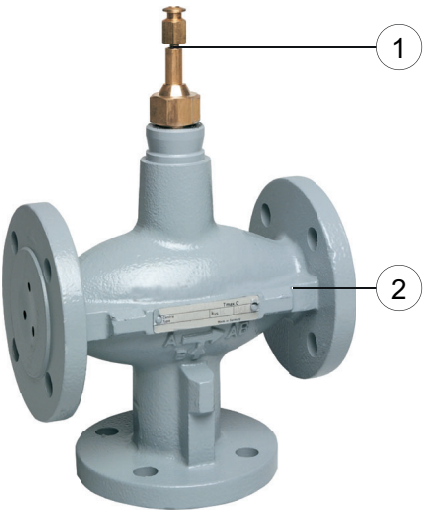
Technical Data

Medium		
Medium:	Water with max. 50 % glycol according to VDI 2035	
Operating temperatures and operating pressure		
DN 15 - DN 80:	2...120 °C:	max. 600 kPa
	120...150 °C:	max. 540 kPa
	150...170 °C:	max. 510 kPa
DN 100 - DN 150:	2...120 °C:	max. 600 kPa
Maximum temperature differential in alternating hot/cold water use:	60 K	
Connection/Sizes		
Connection:	Flanged per ISO 7005-2 Cast iron (GG25)	



Specifications		
Action:	Stem up to close port A-AB	
Nominal pressure rating:	PN 6	
Flow characteristic:	Equal percentage:	port A-AB
	Linear:	port B-AB
Rangeability:	50:1	
Leakage rate:		
DN 15 - DN 80:	≤0.5 % of k_{VS} port A-AB ≤1 % of k_{VS} port B-AB	
DN 100 - DN 150:	≤0.1 % of k_{VS} port A-AB ≤1 % of k_{VS} port B-AB	
Stroke:	20 mm (DN 15 to DN 80) 38 mm (DN 100 to DN 150)	
Packaging:	Spring-loaded PTFE V-rings and 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 Body integrated
		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
- The valve has to be installed stress-free
- Water hammer have to be avoided

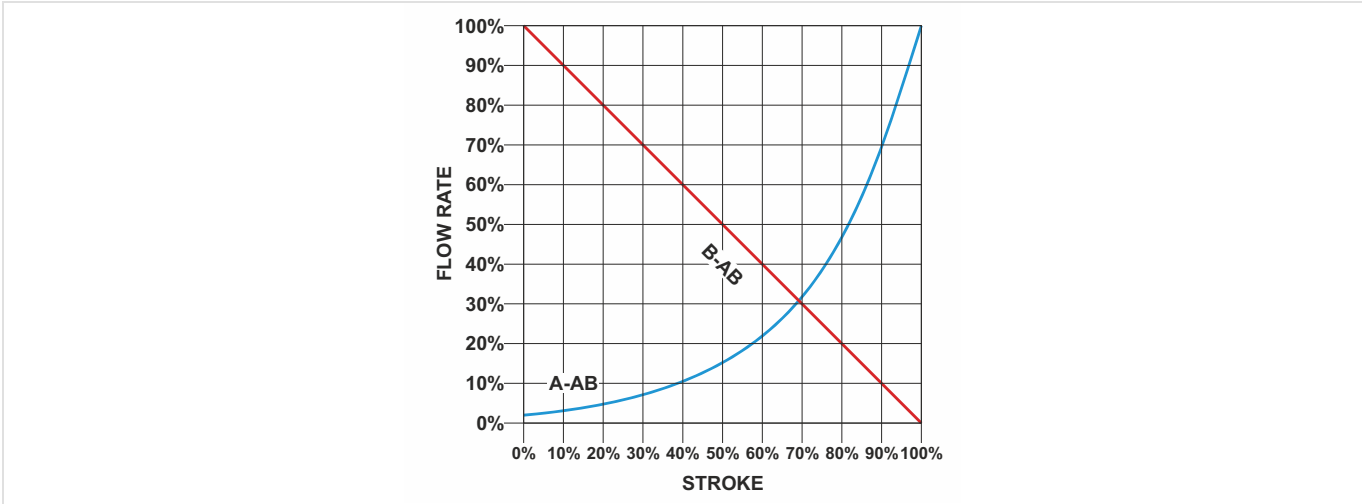
Technical Characteristics

Close off pressure ratings in kPa

Actuator		Valve Size										
Model	Force	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
MLLYD060, MLHFD060, ML6425A/B, ML7425A/B	600 N	600 kPa	600 kPa	600 kPa	600 kPa	480 kPa	260 kPa*	160 kPa	100 kPa*	-	-	-
MLLYD180, MLHYD180	1800 N	-	-	-	-	600 kPa	600 kPa	600 kPa	400 kPa	-	-	-
MLLYE180, MLHYE180	1800 N	-	-	-	-	-	-	-	-	150 kPa	120 kPa	80 kPa

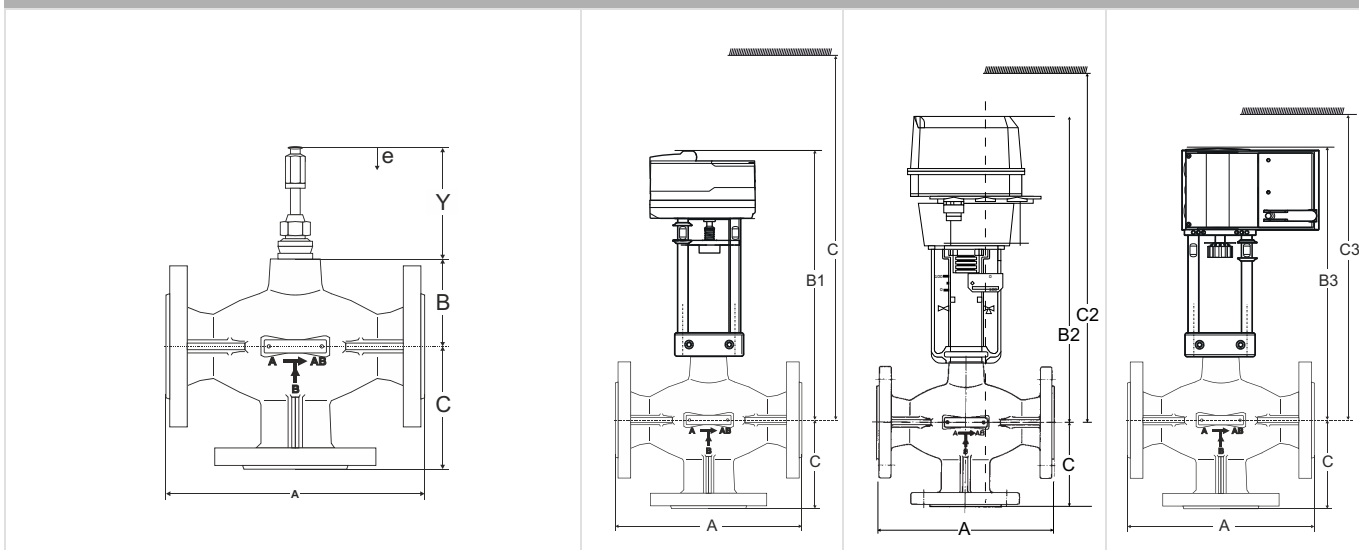
*Recommended to use the MLLYD180 / MLHYD180

Characteristic curves



Dimensions

Overview



DN	A	B	C	Adjustment dimension (A-AB in closed position)	Stroke	MLLYD060, MLHFD060		ML6425 ML7425		MLLYD180, MLHYD180	
				Y		B1	C1	B2	C2	B3	C3
DN 15	130	63	90	107	20	331	481	350	430	383	413
DN 20	150	63	95			331	481	350	430	383	413
DN 25	160	80	100			348	498	365	445	400	430
DN 32	180	80	105			348	498	365	445	400	430
DN 40	200	80	115			348	498	365	445	400	430
DN 50	230	94	125			362	512	380	460	414	444
DN 65	290	105	145			373	523	390	470	425	455
DN 80	310	112	155			380	530	400	480	432	462
										MLLYE180, MLHYE180	
DN 100	350	100	150	107.5	38	-	-	-	-	466	496
DN 125	400	120	175			-	-	-	-	486	516
DN 150	480	140	200			-	-	-	-	506	536

Note: All dimensions in mm unless stated otherwise.

Ordering Information

Naming key linear valves

X	F	15	A		2.5
Type of valve	Type of thread	DN	PN		K _{VS} -value
X = 3-way valve	F = Flanged	15	A =	6	2.5
		20			4.0
		25			6.3
		32			10
		40			16
		50			25
		65			40
		80			63
		100			100
		125			140
		150			220
					310

3-Way Linear Valve - Flanged

DN	k_{VS}-value	Connection	Nominal pressure	Description	Item No.
DN 15	2.5	flanged	PN 6	3-way valve, flanged, DN 15, PN 6, k _{VS} 2.5	XF15A2.5
DN 15	4	flanged	PN 6	3-way valve, flanged, DN 15, PN 6, k _{VS} 4	XF15A4.0
DN 20	6.3	flanged	PN 6	3-way valve, flanged, DN 20, PN 6, k _{VS} 6.3	XF20A6.3
DN 25	10	flanged	PN 6	3-way valve, flanged, DN 25, PN 6, k _{VS} 10	XF25A10
DN 32	16	flanged	PN 6	3-way valve, flanged, DN 32, PN 6, k _{VS} 16	XF32A16
DN 40	25	flanged	PN 6	3-way valve, flanged, DN 40, PN 6, k _{VS} 25	XF40A25
DN 50	40	flanged	PN 6	3-way valve, flanged, DN 50, PN 6, k _{VS} 40	XF50A40
DN 65	63	flanged	PN 6	3-way valve, flanged, DN 65, PN 6, k _{VS} 63	XF65A63
DN 80	100	flanged	PN 6	3-way valve, flanged, DN 80, PN 6, k _{VS} 100	XF80A100
DN 100	140	flanged	PN 6	3-way valve, flanged, DN 100, PN 6, k _{VS} 140	XF100A140
DN 125	220	flanged	PN 6	3-way valve, flanged, DN 125, PN 6, k _{VS} 220	XF125A220
DN 150	310	flanged	PN 6	3-way valve, flanged, DN 150 PN 6, k _{VS} 310	XF150A310

Accessories

Overview associated actuators

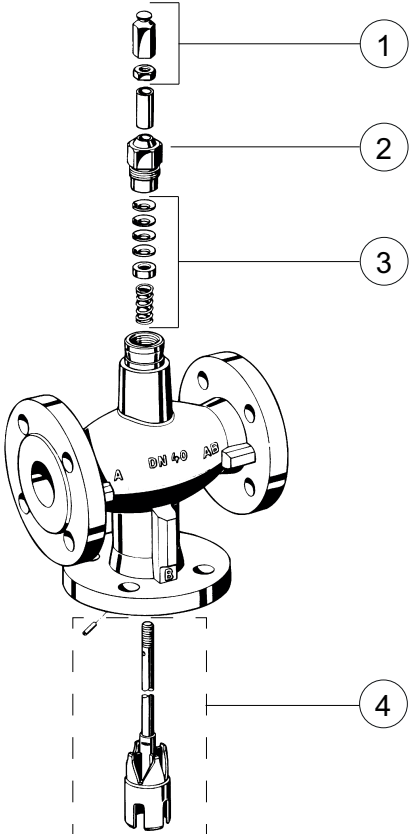
Valve stroke	Actuator	Power supply	Control signal
20 mm	ML6425A/B	230 V AC or 24 V AC power supply	3-point
	ML7425A/B	24 V AC power supply	0 - 10 V
	MLHFD060	230 V AC power supply	3-point, 2-point
	MLLYD060	24 V AC/DC power supply	0 - 10 V or 3-point, 2-point
	MLHYD180	230 V AC power supply	
	MLLYD180	24 V AC/DC power supply	
38 mm	MLLYE180	24 V AC/DC power supply	
	MLHYE180	230 V AC power supply	

	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
	MLLYD180 Actuator: 20 mm stroke, 1800 N, 0-10 V (modulating), 3-point (floating), 2-point			
		24 V AC/DC	120 s (80 s, 40 s)	MLLYD180-00
	MLHYD180 Actuator: 20 mm stroke, 1800 N, 0-10 V (modulating), 3-point (floating), 2-point			
		230 V AC	120 s (80 s, 40 s)	MLHYD180-00
	MLLYE180 Actuator: 38 mm stroke, 1800 N, 0-10 V (modulating), 3-point (floating), 2-point			
		24 V AC/DC	228 s (152 s, 76 s)	MLLYE180-00
	MLHYE180 Actuator: 38 mm stroke, 1800 N, 0-10 V (modulating), 3-point (floating), 2-point			
		230 V AC	228 s (152 s, 76 s)	MLHYE180-00

Spare Parts

Naming key spare parts

ASV	-	PA	-	3	-	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		3		63
		PA = Plug assembly		4		100
						140
						220
						310

Overview	Description	Dimension	Item No.
	1 Stem button assy		
		DN 15 - DN 32	ASV-SBA-1
		DN 15 - DN 65	ASV-SBA-2
		DN 100 - DN 150	ASV-SBA-4
	2 Packing nut		
		DN 15 - DN 32	ASV-PN-1
		DN 40 - DN 80	ASV-PN-2
		DN 100 - DN 150	ASV-PN-4
	3 Packing		
		DN 15 - DN 32	ASV-PAC-1
		DN 40 - DN 80	ASV-PAC-2
		DN 100 - DN 150	ASV-PAC-4
	4 Plug assembly		
		DN 40, k _{VS} 25	ASV-PA-3-25
		DN 50, k _{VS} 40	ASV-PA-3-40
		DN 65, k _{VS} 63	ASV-PA-3-63
		DN 80, k _{VS} 100	ASV-PA-3-100
		DN 100, k _{VS} 140	ASV-PA-3-140
		DN 125, k _{VS} 220	ASV-PA-3-220
		DN 150, k _{VS} 310	ASV-PA-3-310