LCV5200
TWO-WAY THREADED GLOBE VALVE

SPECIFICATION DATA

Application

Single seated control or shutoff valve for:

- hot water
- chilled water
- Domestic Hot Water
- saturated steam
- superheated steam

in Heating, Ventilating, Air Conditioning Systems
Open Circuits

To be operated by

- electric linear actuators as
  ML 6420 / 25
  ML 7420 / 25
  M 6421
  M 7421

Features

- Bronze body with BSPT-threaded end connections.
- Low seat leakage rate (≤0.05 percent of K_{vs}).
- Spring-loaded, self-adjusting packing.
- Accurate positioning to ensure state of the art temperature control.
- Sizes rang from 1 in. to 2 in.
- Valve designs provide equal percentage flow characteristic for water and linear flow characteristic for steam.
- Stainless steel stem and metal-to metal seats.

Specifications

Action:			Stem down to close	
Nominal pressure rating:			20 bar (300 psi) for water	
			12 bar (185 psi) for steam	
Flow characteristic:			See Fig. 2	
Water			Equal percentage (V5011P1XXX)	
steam			Linear (V5011P2XXX)	
Rangeability:			50:1	
Leakage rate:			≤0.05% of K_{vs}	
Stroke:			20 mm	
Valve body:				
Pipe connections:			Internal BSPT-threaded	
Material:			Bronze	
Dimensions:			See Fig. 1	
Trim:				
Seat:			Stainless steel, replaceable	
Plug:			Brass on V5011P1XXX Stainless steel on V5011P2XXX	
Stem:			Stainless steel	
Packing:			Spring loaded carbon fiber reinforced PTFE V-rings	
Medium temperature and pressure:	Water	2	to 120 °C max.	20 bar
		120	to 170 °C max.	12.8 bar
	Steam	170	°C max.	6.9 bar

Sizes and flow capacities

Order Number	Valve size	K_{vs}
LCV5200P1004 (water)	DN25	10
LCV5200P1012 (water)	DN32	16
LCV5200P1020 (water)	DN40	25
LCV5200P1038 (water)	DN50	40
LCV5200P2036 (steam)	DN25	10
LCV5200P2002 (steam)	DN32	16
LCV5200P2010 (steam)	DN40	25
LCV5200P2028 (steam)	DN50	40

Installation

Water should meet VDI2035 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.

Dimensions

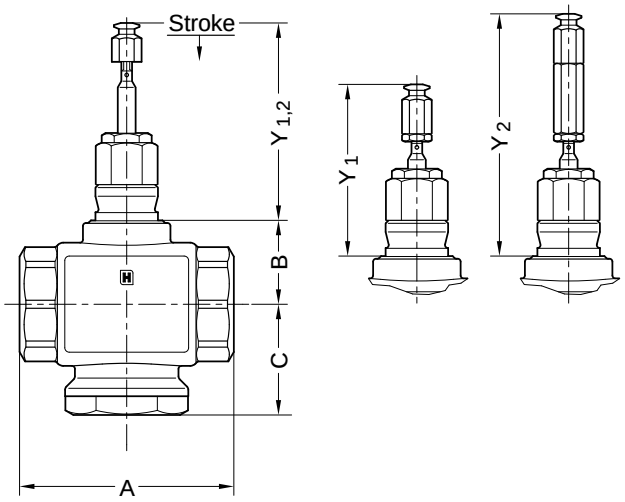


Fig. 1

Valve Size	A	B	Y_1	Y_2*
			stem down	
DN25	103	40	89	133
DN32	106	40		
DN40	120	47		
DN50	134	47		

For Actuator dimensions please refer to:

ML6420 / ML6425 EN0C-0623
ML7420 / ML7425 EN0C-0624

Flow characteristic

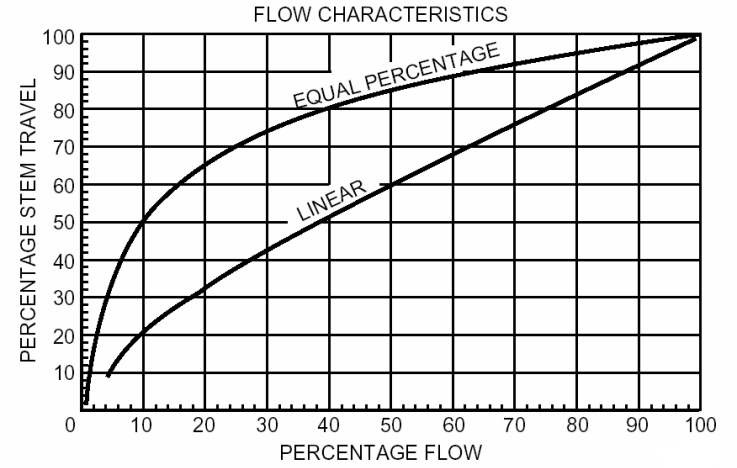


Fig. 2. Equal percentage and linear flow characteristics.

LCV5213
THREE-WAY THREADED GLOBE VALVE

SPECIFICATION DATA

Application

Three port mixing control valves for:

- hot water
- chilled water
- Domestic Hot Water

in Heating, Ventilating, Air Conditioning Systems, Open Circuits

To be operated by

- electric linear actuators as
  ML 6420 / 25
  ML 7420 / 25
  M 6421
  M 7421

Features

- Bronze body with BSPT-threaded connections.
- Stainless steel stem and brass plug.
- Low seat leakage rate (≤0.05 percent of K_{vs}).
- Spring-loaded, self-adjusting packing.
- Accurate positioning to ensure state of the art temperature control.
- Sizes range from 1-1/4 in. to 2 in.

Specifications

Action:	Stem up to close port A-AB	
Nominal pressure rating:	20 bar (300 psi)	
Flow characteristic:	See Fig. 2	
	Equal percentage port A-AB Linear port B-AB	
Rangeability:	50:1	
Leakage rate:	≤0.05% of k_{vs}	
Stroke:	20 mm	
Valve body:		
Pipe connections:	Internal BSPT-threaded	
Material:	Bronze	
Dimensions:	See Fig. 1	
Trim:		
Seat:	Integral brass (upper) Replaceable brass (lower)	
Plug:	Brass	
Stem:	Stainless steel	
Packing:	Spring loaded carbon fiber reinforced PTFE V-rings	
Medium temperature and pressure: Water	2 to 120 °C max.	20 bar
	120 to 170 °C max.	12.8 bar

Sizes and flow capacities

Order Number	Valve size	K_{Vs}
LCV5213P1002	DN32	16
LCV5213P1010	DN40	25
LCV5213P1028	DN50	40

Installation

Water should meet VDI2035 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.

Dimensions

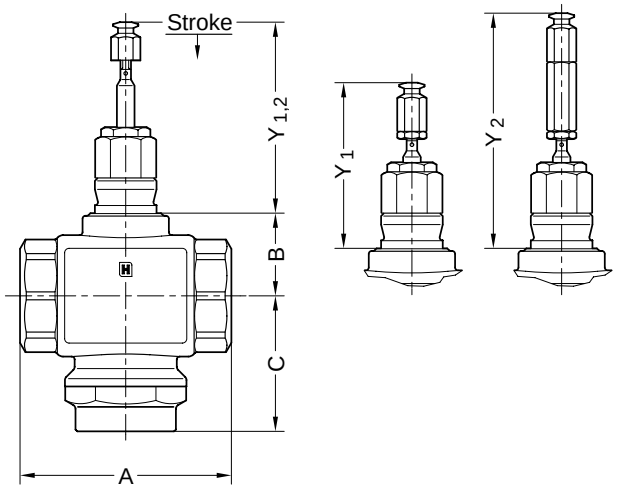


Fig. 1

Valve Size	A	B	C	Y_1	Y_2*
				Stem up	
DN32	106	40	73	107	151
DN40	120	46	77		
DN50	134	46	84		

For Actuator dimensions please refer to:

ML6420 / ML6425 EN0C-0623
ML7420 / ML7425 EN0C-0624

Flow characteristic

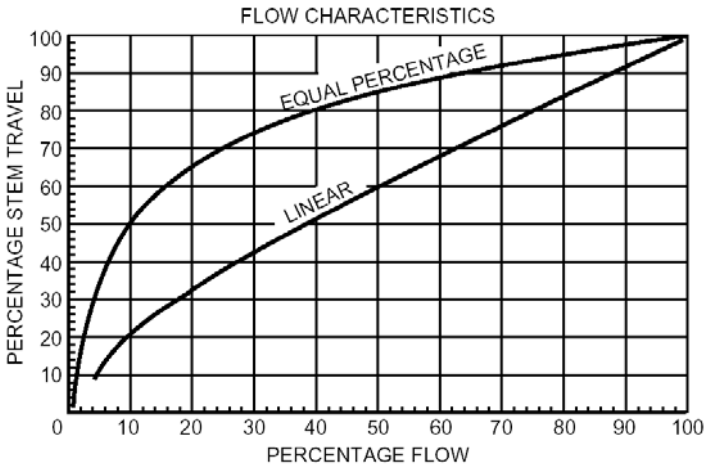


Fig. 2. Equal percentage and linear flow characteristics.

LCV5300
Flanged Linear Valve PN16

SPECIFICATION DATA

General

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

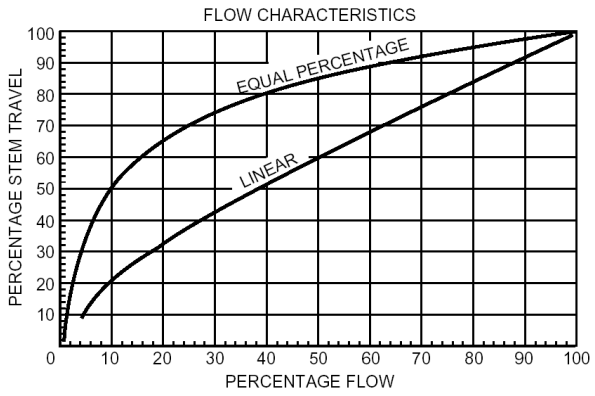


Fig. 1. Characteristics

Features

- Cast iron body with flanged end connections
- Low seat leakage rate
- High Close-off Pressure Rating
- Metal to metal seating for long life span
- Self adjusting packing
- Accurate positioning to ensure state of the art temperature control
- Easy mounting of directly coupled with electric actuators
- Approved according to DIN 32730

Specifications

Action	Stem down to close
Nominal pressure rating	PN16
Plug	Pressure balanced plug
Flow characteristic	Equal percentage (see Fig. 1)
Rangeability	50:1
Leakage rate	≤0.03 % of k_{VS}
Stroke	20 mm
Valve body	
End connections	Flanged per ISO 7005-2
Material	Cast iron (GG25)
Dimensions	See Fig. 2
Trim	
Seat	Stainless steel, replaceable
Stem	Stainless steel
Plug	Stainless steel, skirt guided
Packing rings	Spring loaded PTFE cone
Medium temperature and pressure	2...120 ℃; max. 1600 kPa 120...150 ℃; max. 1400 kPa 150...170 ℃; max. 1370 kPa
Maximum temperature differential in alternating hot/cold water use	60 K

Sizes and flow capacities

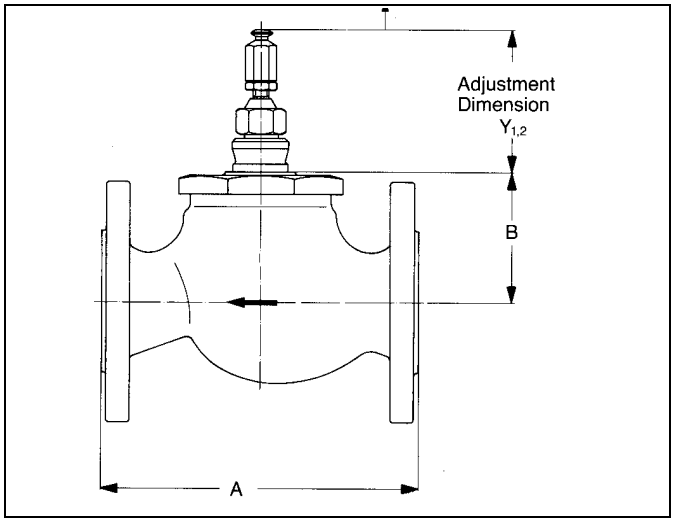
Order Number	Valve Size	k_{VS}
LCV5300A1161	DN50 (for Water)	40.0
LCV5300A1179	DN65 (for Water)	63.0
LCV5300A1187	DN80 (for Water)	100.0
LCV5300A2003	DN50 (for Steam)	40.0
LCV5300A2011	DN65 (for Steam)	63.0
LCV5300A2029	DN80 (for Steam)	100.0

Installation

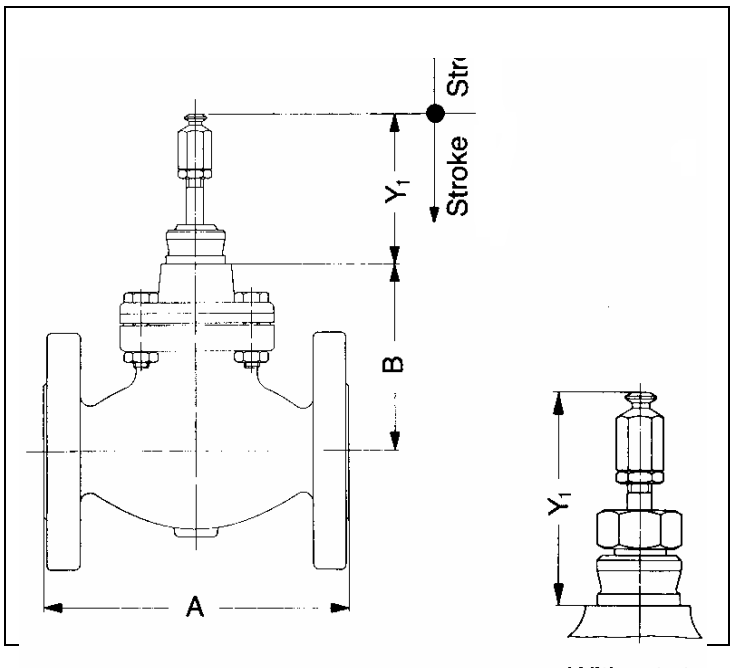
- Water should meet VDI 2035 requirements.
- Do not install valve with stem below the horizontal.
- Fluid flow must correspond with the arrow direction on the valve body.
- The installation of a strainer is strongly recommended.

Dimensions (mm)

Valve



Valve Size	A	B	Y_1
DN50	230	93	89
DN65	290	112	Valve
DN80	310	114	closed



Valve Size	A	B	Y1
DN100	350	181	170
DN125	400	219	
DN150	480	219	

Fig. 2

LCV5400
3-WAY FLANGED LINEAR VALVE PN16

SPECIFICATION DATA

Application

These three port mixing valves are used for modulating control of hot or chilled water in heating, ventilation and air conditioning systems and can be operated by electric linear actuators as ML6420/6425, ML7420/7425, M6421/7421.

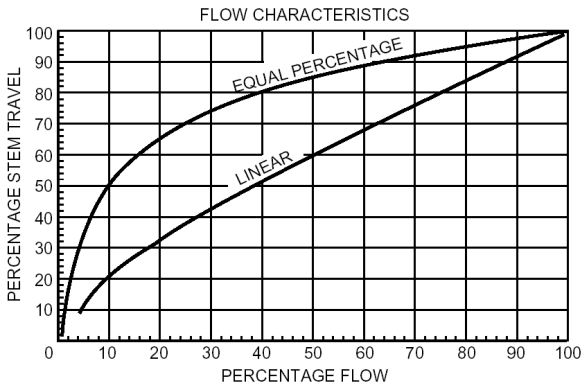


Fig. 1. Characteristics

Feature

- Cast iron body with flanged end connections
- Metal to metal seating for long life span
- Self adjusting packing
- Accurate positioning to ensure state of the art temperature control
- Direct coupled electric and pneumatic actuators for easy mounting
- Constant total flow throughout full plug travel

Specifications

Action	Stem up to close port A-AB
Nominal pressure rating	PN16
Valve type	3-way mixing
Flow characteristic	Equal percentage port A-AB, linear port B-AB (see Fig. 1)
Rangeability	50:1
Leakage rate	≤0.5 % of k_{VS} port A-AB ≤1 % of k_{VS} port B-AB
Stroke	20 mm
Valve body	
End connections	Flanged per ISO 7005-2
Material	Cast iron (GG25)
Dimensions	See Fig. 2
Trim	
Seat	Body integrated
Plug	Stainless steel, skirt guided
Stem	Stainless steel
Packing rings	Spring loaded PTFE cone
Medium temperature and max. pressure PN16	2 ... 120 ℃; 1600 kPa 120 ... 150 ℃; 1440 kPa 150 ... 170 ℃; 1370 kPa
Maximum temperature differential in alternating hot/cold water use	60 K

Sizes and flow capacities

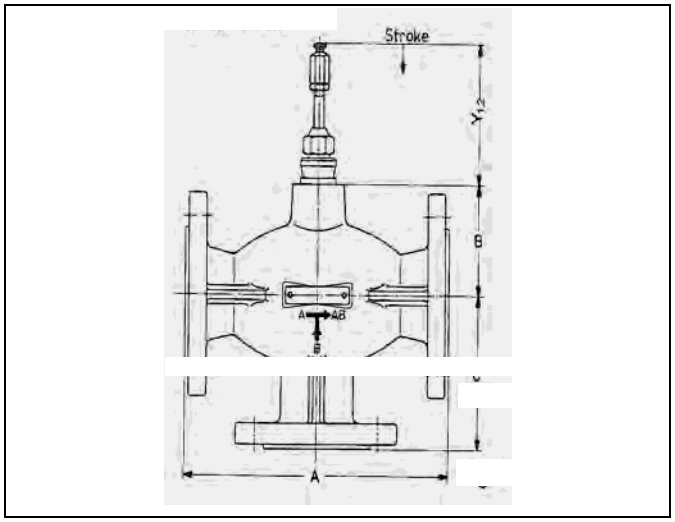
Order Number	Valve Size	k_{VS}
LCV5400A2077	DN65	63.0
LCV5400A2085	DN80	100.0

Order Number	Valve Size	k_{VS}
LCV5400A2088	DN100	140
LCV5400A2106	DN125	220
LCV5400A2114	DN150	310

Installation

- 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.

Valve



DIMENSIONS (mm)

Valve Size	A	B	C	Y_1
DN65	290	105	145	107 port A-AB closed
DN80	310	112	155	

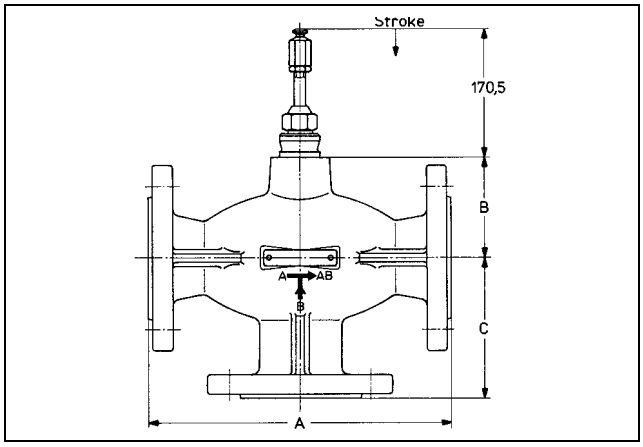


Fig. 2

Valve Size	A	B	C
DN100	350	100	150
DN125	400	120	175
DN150	480	140	200