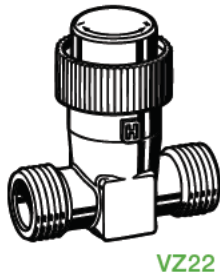
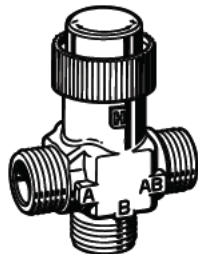


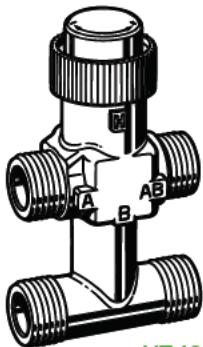
# VZ22, VZ32, VZ42



VZ22



VZ32



VZ42

## SPECIFICATIONS

### Valve types

Two-way valve . . . . .	VZ22
Three-way valve . . . . .	VZ32
Three-way with bypass . . . . .	VZ42
Nominal pressure rating . . . . .	PN16 (232 psi)
Flow characteristics . . . . .	Equal percentage port A-AB Linear for bypass B-AB

### Rangeability

Two-way valve . . . . .	50:1
Three-way valve . . . . .	50:1 for controlled port
Leakage rate . . . . .	< 0.02% of kv
Connections . . . . .	External tread
Suitable medium. . . . .	Water according to VDI 2035 max.50% glycol
Controlled water temperature . . . . .	2 to 120 °C

### Material

Valve body . . . . .	DN15 yellow brass DN20 red brass
Stem . . . . .	Stainless steel
Plug . . . . .	Brass

### Function

Two-way valve . . . . .	stem up to open port A to B
Three-way valve . . . . .	stem up to close port A to AB
Stroke. . . . .	6.5 mm

## Zone Valves PN 16

These small linear valves are used for the control of hot and/or chilled water for fan coil units, small reheaters/recoolers in electric/electronic temperature control systems.

The valves are used together with either MZ10 or MZ95 thermal actuators or MZ18 electro-mechanical actuators.

## FLOW CAPACITIES AND CLOSE OFF PRESSURE RATINGS

### Two-way valves, VZ22

Valve			Close Off Pressure with Actuators (Kpa)	
DN	k <sub>vs</sub>	Part no.	MZ18A, MZ18B,	MZ10T/ MZ95 (95 N)
			MZ18L (180 N)	
15	0.16	721-0702-000	1600	600
15	0.25	721-0706-000	1600	600
15	0.40	721-0710-000	1600	600
15	0.63	721-0714-000	1600	600
15	1.00	721-0718-000	1200	180
15	1.6	721-0722-000	1200	180
20	2.5	721-0726-000	400	50*
20	4.0	721-0730-000	400	50*

\*Up to 1000 kPa system pressure.

### Two-way valves, VZ32

Valve			Close Off Pressure with Actuators (Kpa)		
DN	Kvs		Part no.	MZ18A, MZ18B,	MZ10T/ MZ95 (95 N)
	A AB	B AB		MZ18L (180 N)	
15	0.25	0.16	731-0706-000	800	500
15	0.40	0.25	731-0710-000	800	500
15	0.63	0.40	731-0714-000	800	500
15	1.00	0.63	731-0718-000	250	150
15	1.6	1.00	731-0722-000	250	150
20	2.5	1.6	731-0726-000	240	-
20	4.0	2.5	731-0730-000	240	-
20	2.5	1.6	731-0727-000	100	50
20	4.0	2.5	731-0731-000	100	50

### Two-way valves with bypass, VZ42

Valve			Close Off Pressure with Actuators (Kpa)		
DN	Kvs		Part no.	MZ18A, MZ18B,	MZ10T/MZ95
	A AB	B AB		MZ18L (180 N)	(95N)
				kPa	kPa
15	0.25	0.16	741-0706-000	800	500
15	0.40	0.25	741-0710-000	800	500
15	0.63	0.40	741-0714-000	800	500
15	1.00	0.63	741-0718-000	250	150
15	1.6	1.00	741-0722-000	250	150
20	2.5	1.6	741-0726-000	240	-
20	4.0	2.5	741-0730-000	240	-

## FUNCTION

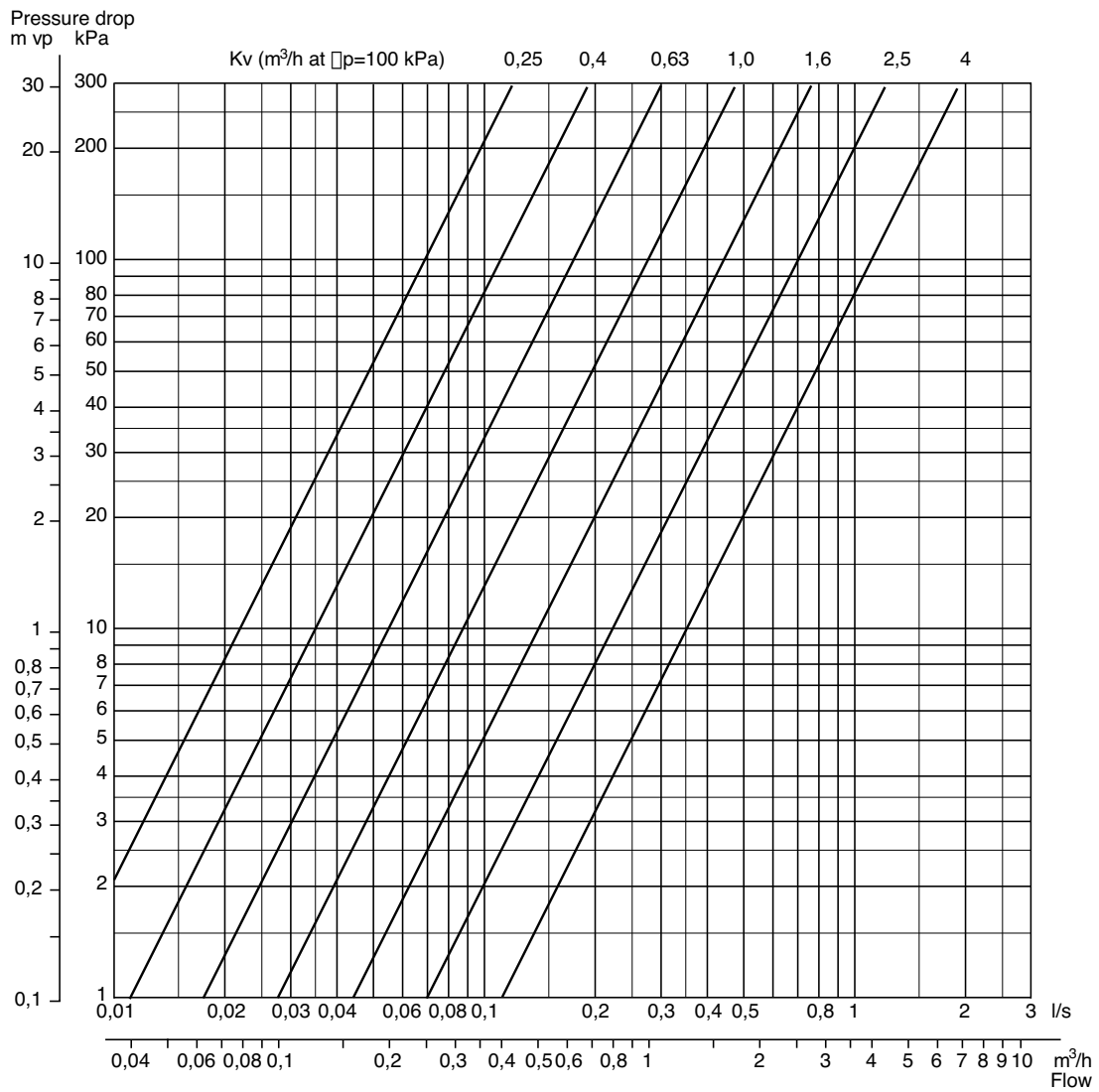
A built-in return spring in the two-way valve produces an opening force.

In the three-way valve and the three-way valve with bypass, the spring produces a closing force on the A to AB ports.

The valves are supplied with a screwed-on adjustment cap for manual operation and for protection of the stem.

Soft seat provides low leakage rate and high rangeability.

## PRESSURE DROP CHART



## MOUNTING

When installing the valve care must be taken that the flow direction is correct (see Typical Operation). The valve must not be mounted with the stem pointing downward.

The adjustment cap must be removed from the valve only when the actuator is fitted. The valve should be installed as stress-free as possible with a tightening torque of 25 to 30 Nm (18 to 22 lbf-ft).

All types of valves should preferably be mounted in the return flow. If the  $\Delta p$ -values exceed 60 kPa (8.7 psi), attention should be paid to the development of noise.

### Two-way valves

Direction of flow always from port A to port B.

### Three-way valves

The valves are preferably to be used as mixing valves, this means:

- Port AB: Total flow outlet
- Port A: Controlled flow inlet
- Port B: Bypass inlet

### Three-way valves with integral bypass

These valves simplify the installation, depending on the layout of the pipework, as the bypass pipe is an integral part of the valve. The information given above for normal three-way valves is also valid for this type of three-way valve.

## DIMENSIONS mm (in)

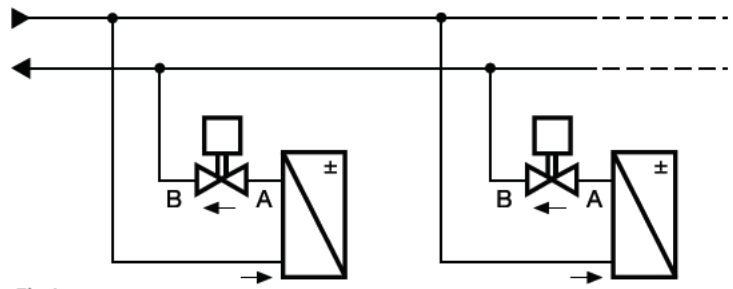


Fig 1

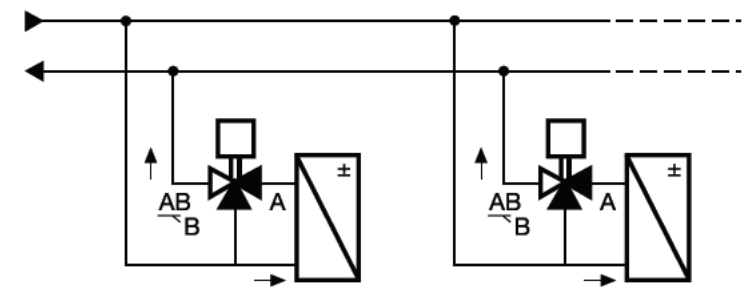


Fig 2

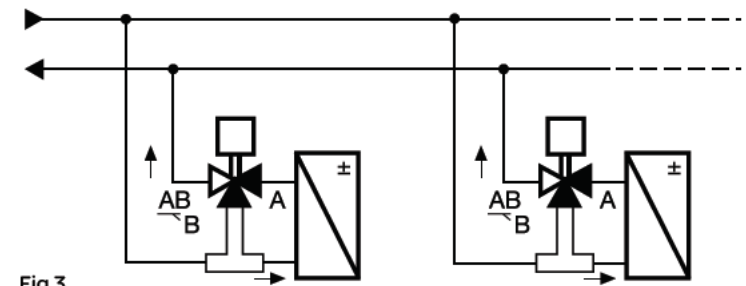
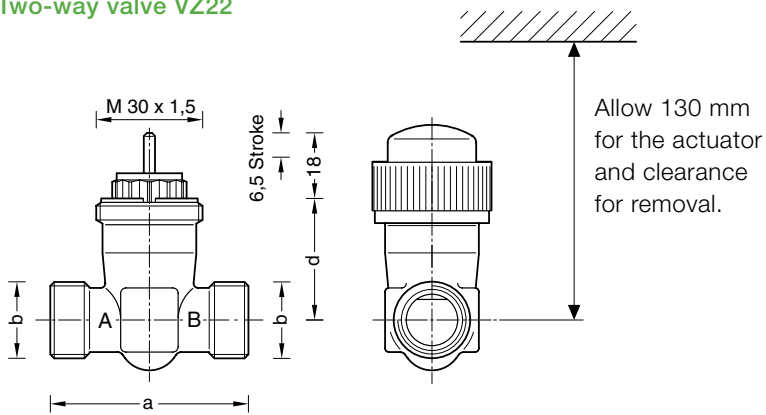


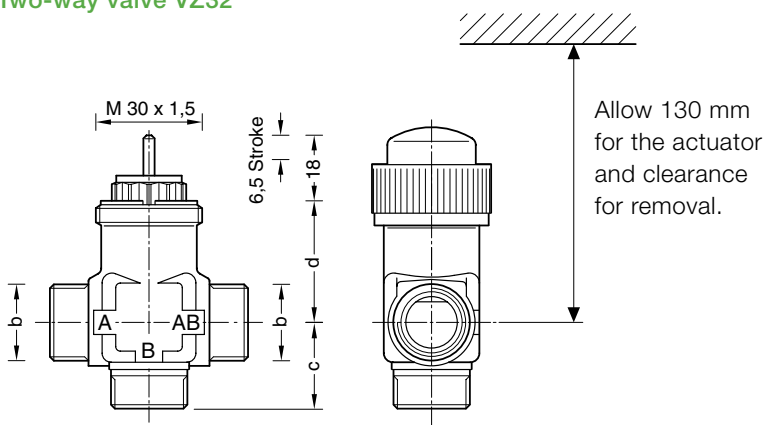
Fig 3

**DIMENSIONS mm**

**Two-way valve VZ22**



**Two-way valve VZ32**



**Three-way valve with integral bypass VZ42**

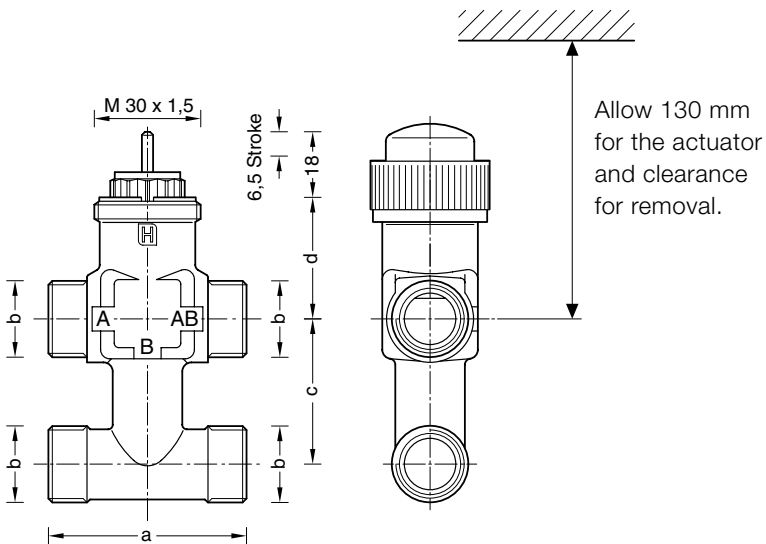


Fig 4

**VZ22**

	a	b		d
DN15	56	G 1/2"		34
DN20	66	G 3/4"		33

**VZ32**

	a	b	c	d
DN15	56	G 1/2"	24.5	34
DN20	66	G 3/4"	33	33

**VZ42**

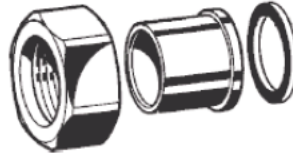
	a	b	c	d
DN15	56	G 1/2"	40	34
DN20	66	G 3/4"	40	33

## ACCESSORIES

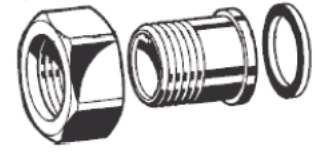
For valves VZ22 two connection sets are necessary, for valves VZ32 three and for valves VZ42 four connection sets.

Each set consists of 1 union nut, 1 solder bush (soldering) or tailpiece (external thread), and 1 gasket.

### ACCESSORIES



Soldering connection set



Exterior thread connection set

Connection type	Size	DN	a	c	d	Pack Quantity	Part number
				mm			
Soldering	15 mm	15	G 1/2"	12	-	1	911-2076-000
	22 mm	20	G 3/4"	15	-	1	911-2077-000
External thread	R 3/8"	15	G 1/2"	-	R 3/8"	10	911-2078-010
	R 1/2"	20	G 3/4"	-	R 1/2"	10	911-2079-010

### DIMENSIONS

