



**Features**

- PN 16, maximum operation pressure 16 bar
- Up to +130°C, with mounted actuator +100°C
- Max differential pressure 2.5 bar
- 2 way, 3-way and 3-way with 4 port
- DN10, DN15 and DN20 sizes
- Kvs values from 0.4 up to 5.0
- Stroke lengths  
4.0 mm for 2-way valves  
3.7 mm for 3-way valves and 3-way 4-port valves
- Threaded connection M30x1.5
- Valves are Normally Open (NO)
- Zone valves VZH-series suitable with actuators A-series and adaptor VA 80 (see seprate data sheet)

**Ordering**

Type no.	Size	Kvs value straight flow	Kvs value bypass flow	Stroke lenght
<b>2-way valve</b>				
VZH 210 04	DN10 (3/8")	0.4		4.0
VZH 210 06	DN10 (3/8")	0.6		4.0
VZH 210 10	DN10 (3/8")	1.0		4.0
VZH 210 16	DN10 (3/8")	1.6		4.0
VZH 215 25	DN15 (1/2")	2.5		4.0
VZH 215 35	DN15 (1/2")	3.5		4.0
VZH 220 45	DN20 (3/4")	4.5		4.0

**3-way valve**

VZH 310 04	DN10 (3/8")	0.4	0.3	3.7
VZH 310 06	DN10 (3/8")	0.6	0.5	3.7
VZH 310 10	DN10 (3/8")	1.0	0.8	3.7
VZH 310 16	DN10 (3/8")	1.6	1.2	3.7
VZH 315 25	DN15 (1/2")	2.5	1.9	3.7
VZH 315 40	DN15 (1/2")	4.0	3.0	3.7
VZH 320 50	DN20 (3/4")	5.0	3.8	3.7

**3-way valve 4-port**

VZH 410 04	DN10 (3/8")	0.4	0.3	3.7
VZH 410 06	DN10 (3/8")	0.6	0.5	3.7
VZH 410 10	DN10 (3/8")	1.0	0.8	3.7
VZH 410 16	DN10 (3/8")	1.6	1.2	3.7
VZH 415 25	DN15 (1/2")	2.5	1.9	3.7
VZH 415 40	DN15 (1/2")	4.0	3.0	3.7
VZH 420 50	DN20 (3/4")	5.0	3.8	3.7

**Application**

For constant control of cold and warm water or air as mixing or diverting valve.

Together with actuator used as control device.

Valves are mounted in pipe system according to application (mixing or distribution valve) by means of standard screw connections with flat seals.

Avoid penetration of dirt into valves.

**Function**

3-way mixing and distributing valve, nickel-plated brass model with thermostatic insert suitable for cooling ceilings and fan coils.

Pipe connection with outside thread for compression unions, as well as welding and soldering connections.

Suitable for thermostatic heads or actuating drives with threaded connection M30x1.5.

AZA actuator serie with valve adaptor ZVA 80 is suitable with VZH valves.

**Pressure and differential pressure for VZH valves, combined with thermo electric actuator AZA with force 100N**

DN	kvs	Used as a control valve			Used as a diverting valve		
		dP max	dP s	close/off pressure	dP max	dP s	close/off pressure
10	0,4	1,7	1,8	1,8	1,9	4,0	4,0
10	0,6	1,7	1,8	1,8	1,9	4,0	4,0
10	1,0	1,7	1,8	1,8	1,9	4,0	4,0
10	1,6	1,7	1,8	1,8	1,9	4,0	4,0
15	2,50	1,4	1,5	1,5	1,6	2,1	2,1
15	4,00	1,2	1,3	1,3	1,4	2,1	2,1
20	5,00	1,0	1,1	1,1	1,2	2,0	2,0

**dP max** [bar] = Max. permissible pressure difference across the valve at which the actuator can still firmly open and close the valve. Figures stated are for a static pressure of 6 bar; at a static pressure of 16 bar, the values are reduced by 15%.

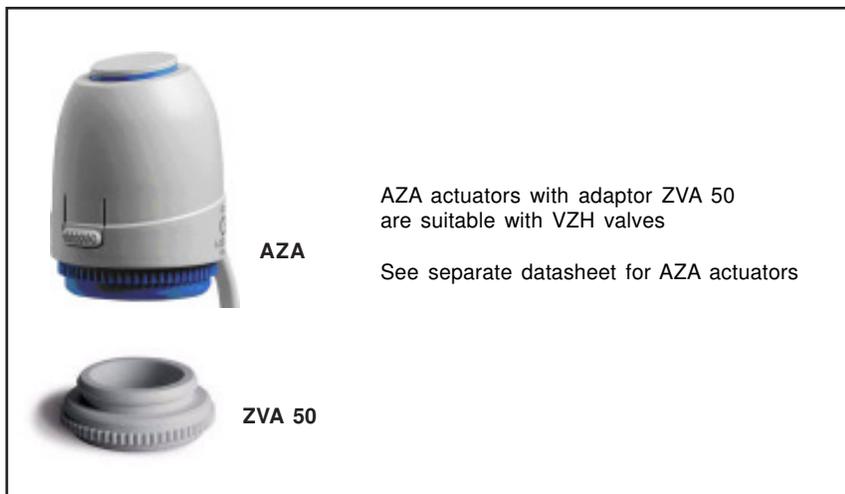
**dP s** [bar] = Max. permissible pressure difference across the valve which, in the event of a malfunction, the actuator can close the valve.

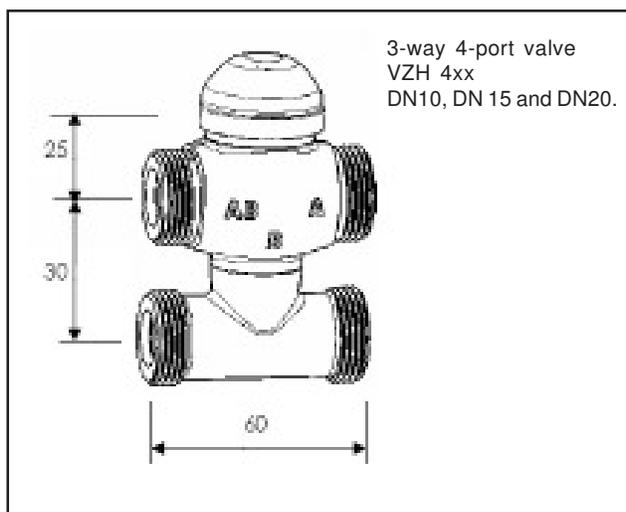
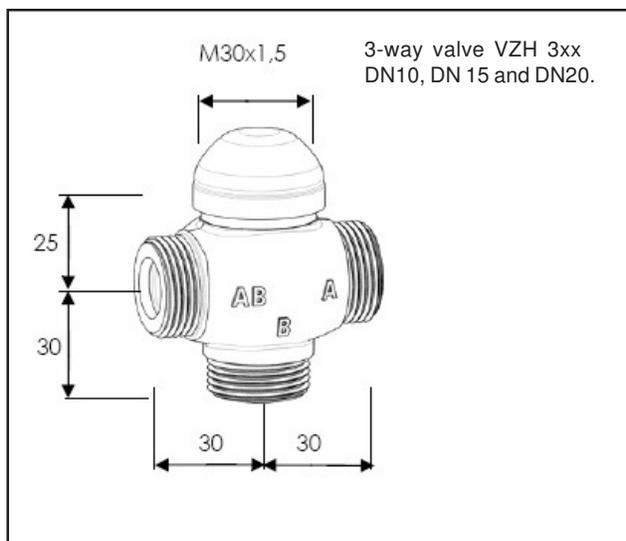
**Close/off pressure** = The pressure difference across the valve in control mode that the force of the drive can overcome. In this mode, a reduced service life can be expected. Cavitation, erosion and pressure surges may damage the valve. The values stated apply only when the valve is fitted to the actuator.

**Operation**

The control passage (A-AB) is closed and the mixing passage (B-AB) is opened by pressing the spindle in; it is returned by spring pressure (the spring is in the valve).

The AZA thermo electric actuators can be used to move the VZH valve to the OPEN or CLOSED position. Used in combination with the "Normally Closed" actuator versions AZA 4004 and AZA 2004, the control passage closes in the event of power failure. Used in combination with the "Normally Open" actuator versions AZA 4104 and AZA 2104, the control passage opening in the event of power failure.



**Dimensions**

We reserve the right to make changes in our products without any notice which may effect the accuracy of the information contained in this leaflet.