

DB-VZ + SM... – on-off zone valves with actuator



The appearance of the product may differ from the illustration. Technical specifications are subject to change.

DB-VZ + SM... SERIES

APPLICATION AND USE

The DB-VZ valves coupled with SM230/CA or SM24/CA synchronous actuator are suitable for heating and cooling water in zone systems for ON-OFF control.

Typical applications are for fan-coil units.

KEY FEATURES

- Coupling between synchronous actuator and body valve with ring nut.
- Actuator is fitted with manual operating lever for manual override when power supply is not applied or if a power failure occurs.
- Synchronous motor with clutch, strong gear and spring for long term working..
- The actuator opens the valve (normally closed) according to the command signal of a thermostat; at the signal interruption a spring positions the valve to the closed position.
- 2-way valves: the plug closes against the flow.
- 3-way valves: the plug blocks the flow toward user side.
- Quiet operation
- Reliability
- Models are available with an optional end stroke switch to provide valve position indication or control function such as pump or fan start/stop.

TECHNICAL SPECIFICATION

TYPE	CONNECTION	WAYS/MODEL	POWER SUPPLY 50/60 Hz	KV _s [m ³ /h]	MAX DIFF. PRESSURE [bar]	RUNNING TIME [s]	
						OPEN	CLOSE
DB-VZ2-15	DN15 (G 1/2)	2		1.6	2.5	≤10	5
DB-VZ2-20	DN20 (G 3/4)	2		3.5	1.0	≤10	≤5
DB-VZ2-25	DN25 (G 1)	2		5.5	0.6	≤10	≤5
DB-VZ3-15	DN15 (G 1/2)	3		1.6	2.5	≤10	≤5
DB-VZ3-20	DN20 (G 3/4)	3		3.5	1.0	≤10	≤5
DB-VZ3-25	DN25 (G 1)	3		5.5	0.6	≤10	≤5
SM230/CA		With auxiliary microswitch	230 V _{AC} ±10%				
SM24/CA		With auxiliary microswitch	24 V _{AC} ±10%				

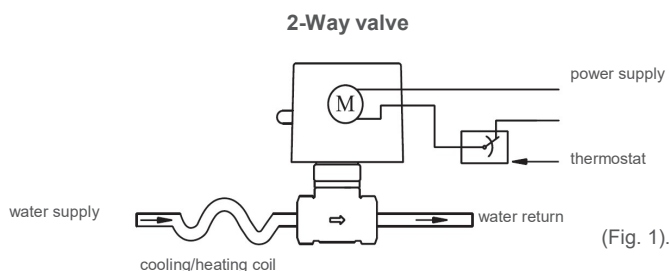
Synchronous motor:	
Power supply:	See table
Max. load:	3 A, 125...250 V _{AC}
Power consumption:	7 VA
Working temperature range:	+2...+60°C
Working humidity:	10...90 % RH (non-condensing)
Material	plyta: odlew ze stopu aluminium
Cover:	fire-proof ABS
Protection class:	IP40, class II
Dimensions:	77 x 65 x 62
Weight:	see schedule on last page

Valve:	
Valve type:	2- or 3-way
Medium temp.:	0...+105°C
Material:	body: forged brass
Stem:	Stainless steel AISI 302
Seal material:	NBR nitrile rubber
Storage temp.:	-20...+70 °C, < 95% RH
Dimensions:	see schedule on last page
Weight:	see schedule on last page

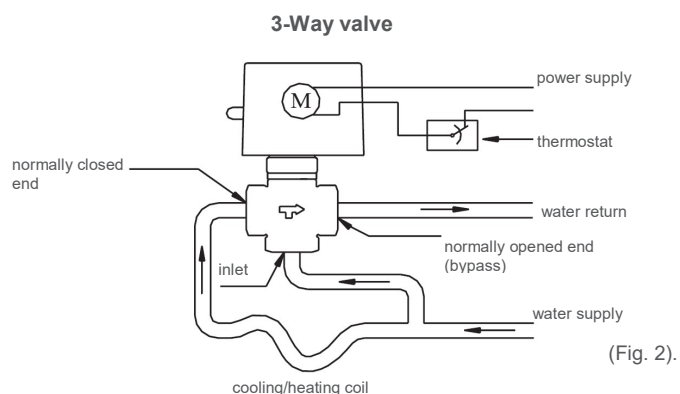
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INSTALLATION

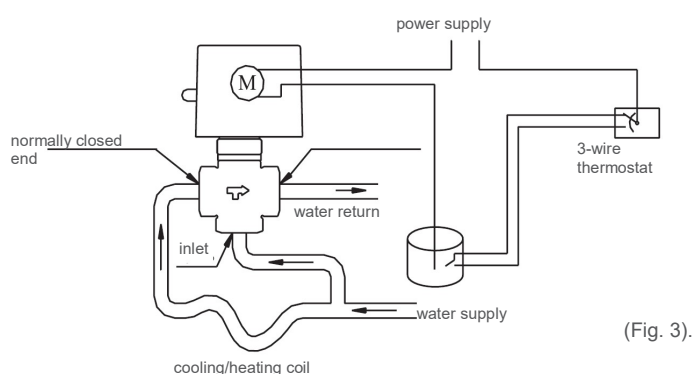
2-way valves normally closed: the flow direction is shown in figure (the valve closes against the flow of the water, fig.1).



3-way diverting valves: inlet is the normally closed end and the normally open end is the bypass port (the inlet part is unmarked, fig.2 and fig.3).

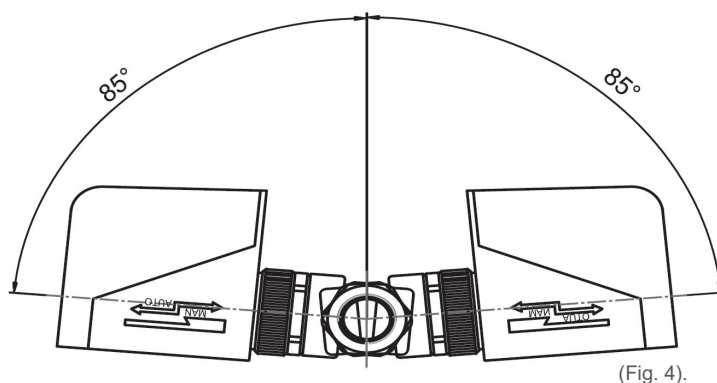


3-way valve with clamp-on changeover switch



Important notes for fan-coil installations:

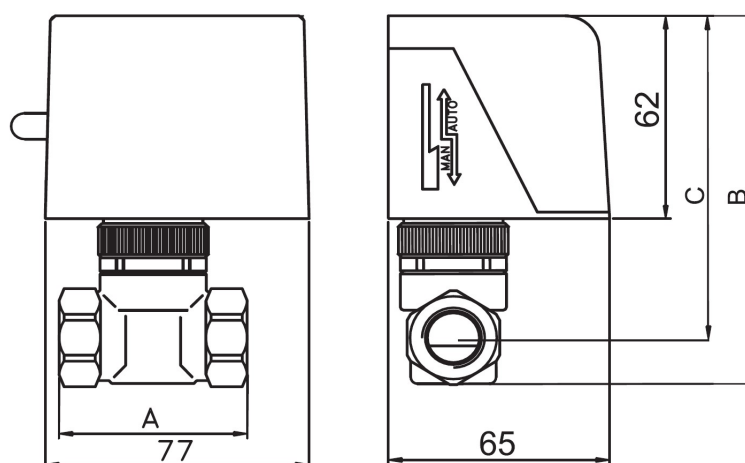
Motor and gear will not operate properly when wet. Motor housing must be protected from drip. The actuator together with the valve body do not need to be protected against condensation when installed horizontally or up to 85° from upright position (see fig. 1). When mounted in vertical piping, motor housing must be protected from drip.



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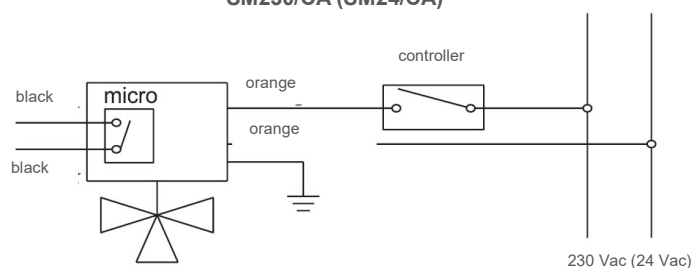
DIMENSIONS [mm]

TYPE	MAX. DIFF. PRESSURE (kPa) (VALVE CLOSED)	DIMENSIONS [mm]			WEIGHT [g]
		A	B	C	
DB-VZ2-15	250	54	114	100	270
DB-VZ3-15	250	54	130	100	250
DB-VZ2-20	100	63	122	103	490
DB-VZ3-20	100	63	135	103	400
DB-VZ2-25	60	78	126	106	660
DB-VZ3-25	60	78	144	106	750



WIRING DIAGRAM

SM230/CA (SM24/CA)



Due to continuous product improvement, specifications are subject to change without notice.

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