

**V A L V E**

**MODULATING Ball Valves Actuator AC/DC24V 4.25N**

**Application**

The electric actuators of the JOVENTA VALVE series have been designed for operating ball valves.

The actuators are to be mounted with the linkage kit ZAK2 onto Joventa JV... series ball valves.

**Key features**

- DC0(2)...10V or 0(4)...20 mA control signal
- Working area adjustable
- Load-independent running time
- Up to 5 actuators in parallel operation possible
- Plug-in terminal block connection
- Simple mount with ball valves adapter ZAK2
- Selectable direction of rotation
- Manual release button
- 2 adjustable auxiliary switches
- Automatic shut-off at end position (overload switch)
- Customized versions available
- Devices meet CE requirement

**Order-examples**

Ball-valve, Bracket and Actuator individual:

**Order-code**

- BAS... or BMS...
- ZAK2
- JV...

Ball-valve with Actuator assembled:

**Order-code**

- JV... + BAS... or BMS...  
(The order-code of the bracket must not be presented)

**Nomenclature/Specification/Technical data**

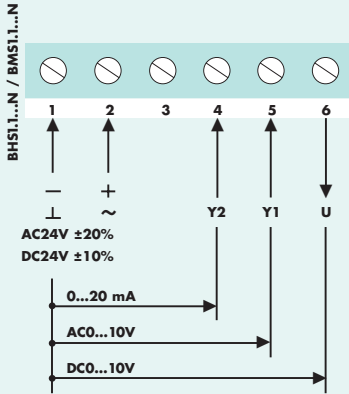
BMS1.1N	AC/DC24V	with cable
BMS1.1SN	AC/DC24V	with 2 auxiliary switches and cable
BHS1.1N	AC/DC24V	with cable
BHS1.1SN	AC/DC24V	with 2 auxiliary switches and cable

Actuator	BMS1.1...N	BHS1.1...N
Torque	8 Nm	8 Nm
Running time OPEN	30 s	30 s
Running time CLOSE	30 s	30 s
Supply voltage	AC/DC24V	AC/DC24V
Frequency	50-60 Hz	50-60 Hz
Power consumption		
- Running	2.5 W	2.5 W
- At end position	0.3 W	0.3 W
Dimensioning	6.0 VA / 3.6 A @ 2 ms	6.0 VA / 3.6 A @ 2 ms
Weight	1.1 kg	1.1 kg
Working area Y	not adjustable	adjustable
Control signal Y1	DC0(2)...10V	DC0(2)...10V
Input resistance Y1	Ri 250 k Ohm	Ri 250 k Ohm
Control signal Y2	0(4)...20 mA	0(4)...20 mA
Input resistance Y2	Ri 388 Ohm	Ri 388 Ohm
Position signal U	DC0...10V	DC0...10V
Load resistance	> 50 k Ohm	> 50 k Ohm
Angle of rotation/working range	90° (93° mech.)	
Angle of rotation/limitation	none	
Auxiliary switches	3(1.5)A, AC230V	
- S1 setting range	5°...85° < adjustable	
- S2 setting range	5°...85° < adjustable	
Cable	1.0 m halogen-free	
- Motor	5-Wire 1-2-4-5-6	
- Switches	5-Wire 21-22-23-24-25	
Lifetime	60'000 Rotations	
Noise level	45 dB (A)	
Protection class	II	
Degree of protection	IP 54	
Mode of action	Type 1	
Ambient conditions		
- Operating temperature	-20...+50°C / IEC 721-3-3	
- Storage temperature	-30...+60°C / IEC 721-3-2	
- Humidity	5...95% r.F. no condensed	
Service	Maintenance-free	
Standards	Mechanics	EN 60 529 / EN 60 730-2-14
	Electronics	EN 60 730-2-14
	EMC Emissions	EN 50 081-1:92 / IEC 61 000-6-3:96
	EMC Immunity	EN 50 082-2:95 / IEC 61 000-6-2:99

## V A L V E

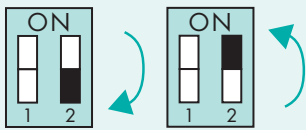
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### Wiring diagram



### Changing the direction of rotation

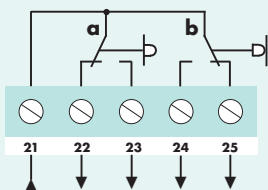
Microswitch **d2**



In order to reverse the direction of rotation, move microswitch **d2** to the ON position. The action of the output signal will also be changed in the process.

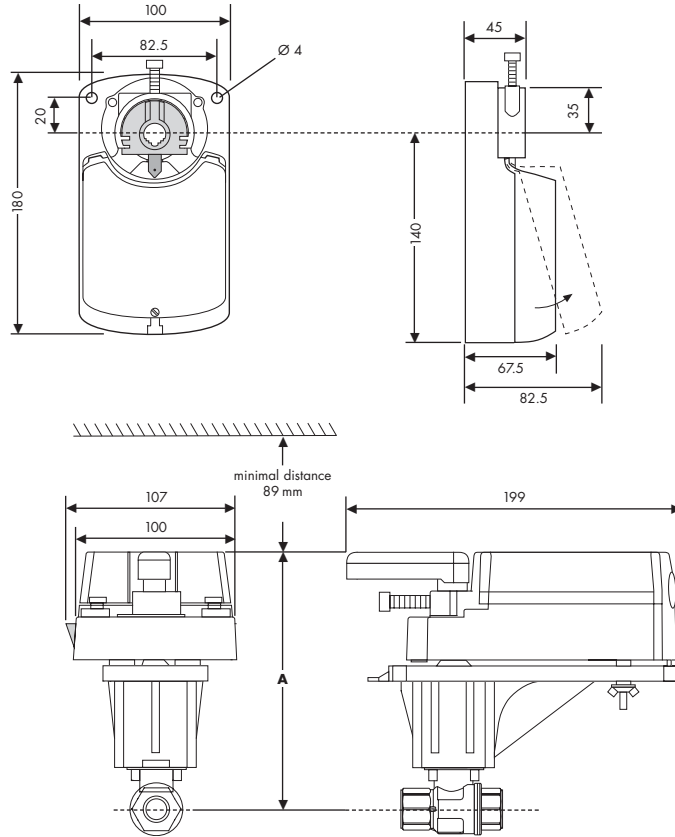
**Plug (c) must never be reversed. The motor will not function correctly if (c) is reversed.**

### Auxiliary switches (S)



3(1.5)A, AC230V  
Actuator at 0° position

### Dimensions in mm



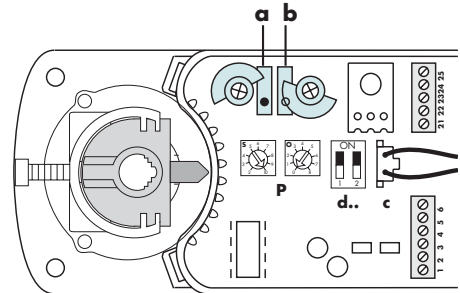
Typ	A
DN15	160
DN20	160
DN25	162
DN32	173
DN40	177
DN50	182

### Setting the auxiliary switches

Factory setting

Switch **a** at 10°  
Switch **b** at 80°

The switching position can be manually changed to any required position by turning the ratchet.



### Setting the control signal

Control signal Y1  
Input resistance DC0...10V  
 $R_i > 250 \text{ k}\Omega$

Control signal Y2  
Input resistance 0...20 mA  
 $R_i = 388 \Omega$

Position signal U  
Load resistance DC0...10V  
 $> 10 \text{ k}\Omega$

Leave microswitch **d1** in OFF position.

BMS...N  
BHS...N

Microswitch **d1**  
Self-adapting

De-activated



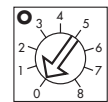
activated



BHS...N

Poti **p**  
for Y signals

Poti **o**



Poti **s**

