

MZ20B

3-Point Floating Zone Actuator



Product Description

MZ20B is an electro-mechanical actuator designed to provide floating increase/decrease control together with VZ*19* zone valves.

The Actuator is available in both 24V AC 50/60 Hz and also 230V 50/60 Hz.

Manual override is available on all versions.

Specifications

Power Consumption	
MZ20B-24	0.6W (0.7VA)
MZ20B-230	1W (5VA)
Supply voltage	
MZ20B-24	21.6 to 26.4Vac (50/60 Hz)
MZ20B-230	207 to 253 Vac (50/60Hz)
Speed	18s/mm (50 Hz) 15 s/mm (60 Hz)
Full stroke time, VZ*19* valves	100 sec (50Hz) / 82 sec. (60Hz)
Controller recommend time out function	120% of full stroke time
Temperature working	-5 to 55°C
storage	-25 to 65 °C
Humidity	Max 95% non condensing
Stem force	200 N
Max stroke	5,5 mm
Connection cable	3 wires 1,5 m
Sound power level	35 dBA
Protection class	IP43 (for vertical mounting) IP41 (for horizontal mounting)
Suitable for valves	see table on pg 3
Weight	162 gr.
Approvals	EMC 2004/108/CE according to the EN 61326-1 standard. LVD 2006/95/CE according to the EN 61010-1 standard for the products powered 230 V.

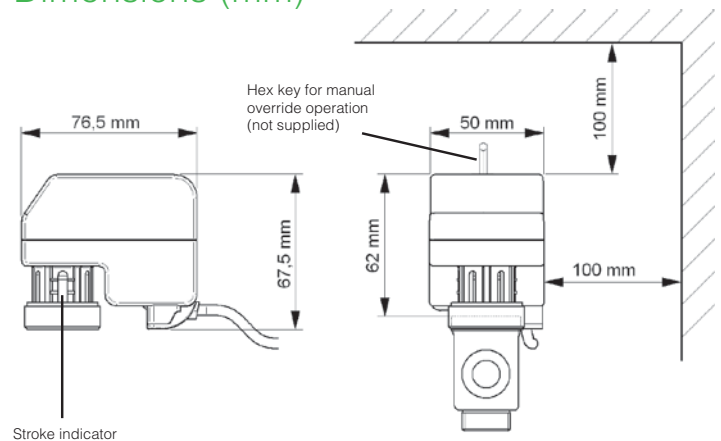
Ordering Table

Part number	Description	Input voltage
845-5003-000	MZ20B-230	230 VAC 50/60 Hz
845-5001-000	MZ20B-24	24 VAC 50/60 Hz

Accessories

Part number	Description
911 6006 000	10 x 24 Vac cable, 6m, MZ20A/B

Dimensions (mm)



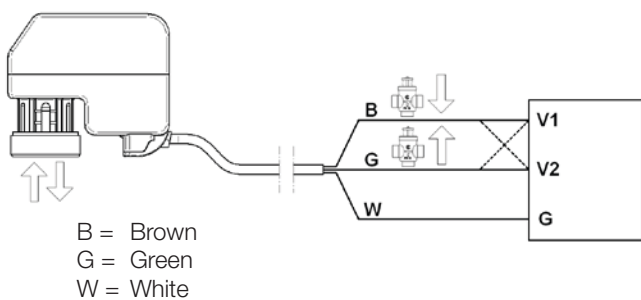
Function

The MZ20B is an electric-Bidirectional Actuator.
 The actuator shaft that acts upon the valve stem is finely positioned through the gearbox from the synchronous electric motor.
 A magnetic clutch limits the torque on the valve stem and protects the actuator from overload at the valve stroke limits.
 The actuator is equipped with a removable socket mounted cable for 3 wire electrical connection.
 Electrical connection is via a supplied 3 wire socketed cable, allowing the actuator to be electrically disconnected quickly and simply.
 The Actuator requires no maintenance.
 All MZ20B actuators have visible stroke indication through the yoke of the actuator. (can we provide a picture).
 N.B : Due to the magnetic clutch, the actuator could be continuously powered up without damage but, for energy saving and increased life, it is recommended to use a controller equipped with a cut-off function (suggested timing 120% of stroke time).
 All MZ20B models allow manual override by means of a Allen Hex socket key (3 mm).
 The manual override must not be operated with power tools, e.g. an electric screwdriver.
 It is necessary to power off the actuator before starting the manual control.

Mounting

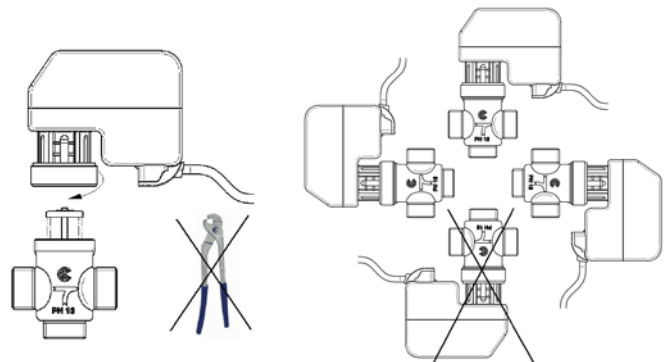
Prior to the actuator being mounted onto the valve, good practice should be followed regarding the valve installation.
 The Valve adjustment cap, if present from system balancing and flushing will need to be removed from the valve prior to actuator connection.
 The actuator assembly onto the valve is made by the M30 threaded ring nut. The actuator assembly must be made by hand, no tools are required, excessive tightening of the actuator from the use of tools could cause damage to the valve assembly.
 The threaded ring nut allows for comfortable cable positioning at any 360° angle on the valve.
 The actuator is able to operate in any mounting position but it is advisable not to install it upside down.
 The protection degree declared (IP43) is granted only if the valve is mounted with the actuator upwards, IP41 is granted if the actuator is mounted vertically.
 The actuator is able to operate in any mounting position, but it is advisable not to install it upside down.
 Three-way valves should be preferably used as mixing valves.
 In case they are mounted as diverting (i.e. an inlet and two outlets) the max differential pressure for normal operation must be reduced to one third of the specified value.
 While mounting, respect the fluid directions indicated by the arrows on the valve body.

Electrical Connections





All VZ*19* Valves are stem up closed

Mounting



Part Number Ordering

		 VZ*19E Flat face external thread		 VZ*19C Compression End Connection*		Max Close-off (kPa) MZ20		
Two-way valves								
Size	Kvs	Valve Part No.	End Connection	Valve Part No.	End Connection	A-AB		
DN 15	0.25	VZ219E-15BP01	G1/2A	VZ219C-15BP01	15mm O/D	400		
	0.4	VZ219E-15BP02		VZ219C-15BP02				
	0.6	VZ219E-15BP03		VZ219C-15BP03				
	1	VZ219E-15BP04		VZ219C-15BP04				
	1.6	VZ219E-15BP05		VZ219C-15BP05				
	2	VZ219E-15BP06		VZ219C-15BP06				
DN 20	2.5	VZ219E-20BP07	G3/4A	VZ219C-20BP07	22mm O/D	250		
	4	VZ219E-20BP08				150		
	6.0	VZ219E-20BP09						
Three-way valves								
Size	Kvs		Valve Part No.	End Connection	Valve Part No.	End Connection	A-AB	B-AB
	A-AB	B-AB					A-AB	B-AB
DN 15	0.25	0.25	VZ319E-15BP01	G1/2A	VZ319C-15BP01	15mm O/D	400	400
	0.4	0.25	VZ319E-15BP02		VZ319C-15BP02			
	0.6	0.4	VZ319E-15BP03		VZ319C-15BP03			
	1	0.6	VZ319E-15BP04		VZ319C-15BP04			
	1.6	1	VZ319E-15BP05		VZ319C-15BP05			
	2	1.6	VZ319E-15BP06		VZ319C-15BP06			
DN 20	2.5	1.6	VZ319E-20BP07	G3/4A	VZ319C-20BP07	22mm O/D	100	40
	4	2.5	VZ319E-20BP08					
	6.0	4	VZ319E-20BP09					
Three-way valves with integral by-pass (4 ports)								
DN 15	0.25	0.25	VZ419E-15BP01	G1/2A	VZ419C-15BP01	15mm O/D	400	400
	0.4	0.25	VZ419E-15BP02		VZ419C-15BP02			
	0.6	0.4	VZ419E-15BP03		VZ419C-15BP03			
	1	0.6	VZ419E-15BP04		VZ419C-15BP04			
	1.6	1	VZ419E-15BP05		VZ419C-15BP05			
	2	1.6	VZ419E-15BP06		VZ419C-15BP06			
DN 20	2.5	1.6	VZ419E-20BP07	G3/4A	VZ419C-20BP07	22mm	100	40
	4	2.5	VZ419E-20BP08					
	6.0	4	VZ419E-20BP09					

Nuts and olives supplied with the compression end connection valve

