

MZ95 Thermal Zone Valve Actuator



Product Description

The MZ95 is a small thermoelectric linear zone valve actuator used in room and zone applications for time-controlled two-point and pulse-width-modulated (PWM) regulation of heating and cooling systems such as fan coil units, radiators, floor heating systems, chilled ceilings, and convectors.

The MZ95 has a discreet design that blends into living space applications.

Features

- No mounting tools required (easily mounted using valve adapter)
- Water-protected housing design in all mounting positions
- Pluggable cable for easy installation and servicing
- Low power consumption – allowing many actuators to be driven from the same controller
- Normally-open (NO) and normally-closed (NC) models
- Compact design allows installation in limited space
- Visual indicator showing valve position and type of action (NO or NC)
- Noiseless operation
- Reliable long-term operation
- Overvoltage protection (4 kV) for 230 V models

Available Products

Part Number	Type Designation	Action*	Voltage
MZ95NC-24T	MZ95-NCD-24T 1.5M54 00	Normally closed (stem down)	24 Vac/dc
MZ95NO-24T	MZ95-NOU-24T 1.5M54 00	Normally open (stem up)	
MZ95NC-230T	MZ95-NCD-230T 1.5M54 00	Normally closed (stem down)	230 Vac
MZ95NO-230T	MZ95-NOU-230T 1.5M54 00	Normally open (stem up)	

*Without power, in combination with standard 2-way valve.

“Normally Closed” = Actuator stem extends downward without power closing the valve, retracts when powered to open the valve.

“Normally Open” = Actuator stem retracts upward without power opening the valve, extending when powered to close the valve.

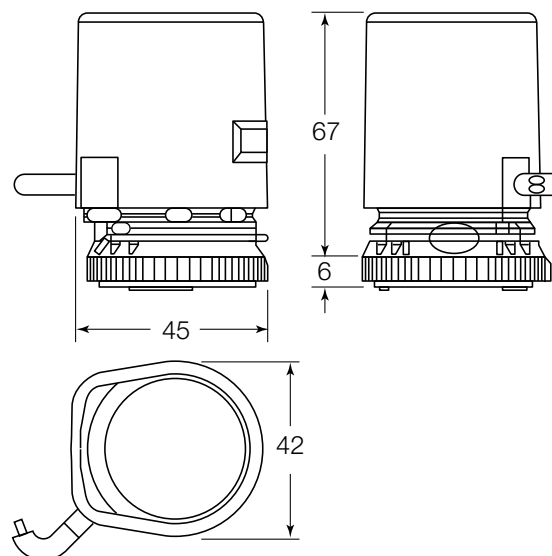
Accessories

Part Number	Description
911 4202 500	Additional cable set 2.5 m, 10 pcs
911 4205 000	Additional cable set 5 m, 10 pcs
911 4210 000	Additional cable set 10 m, 10 pcs

Specifications

Max. stroke	8 mm
Power supply	MZ95xx-24T: 24 Vac/dc \pm 20% MZ95xx-230T: 230 Vac + 10%-15%
Stem force	95 N
Ambient temperature	Max. 50 °C
Power consumption	2 W
Protection standard	IP44 in all mounting positions
Cable length (standard)	1.5 m
Cable size	2 x 0.5 mm ²
Medium temperature	Max. 120 °C
Valve connection	M30 x 1.5

Dimensions (mm)



Power Consumption and Running Times

Part Number	Initial Current*	Permanent Current*	Power Consumption*	Min. Full Stroke Runtime for 6.5 mm Valve Stroke
MZ95xx-24T	~0.2 A	< 0.1 A	< 2 W (2 VA)	7.5 min.
MZ95xx-230T	~0.4 A**	0.010 A	2 W	5.5 min.

*All values at nominal voltage.

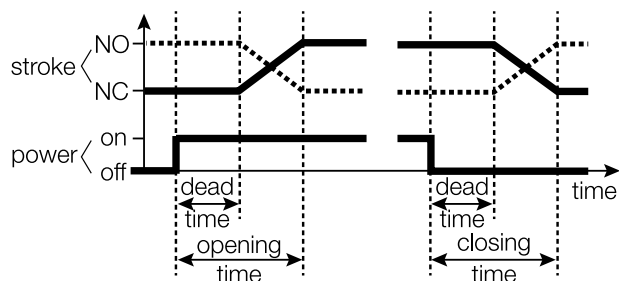
**Average during first 500 msec.

N.B. recommendations with Xenta 121 controller, using V1 to V4 TRIAC heating/cooling outputs:

3 x 24 V actuators per line output (12 actuators max.)

1 x 230 V actuator per line output (4 actuators max.)

Opening and Closing Times



Note: Opening and closing times depend upon ambient temperature and model.

Function

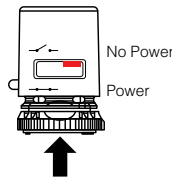
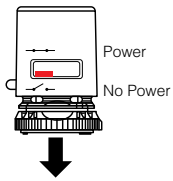
When the operating current is applied, a PTC resistor heats up a wax element. After a brief pre-heating delay (dead time), this wax element expands, causing movement in the actuator stroke.

Valve Action

NC (NC.D) Normally Closed/Stem Down

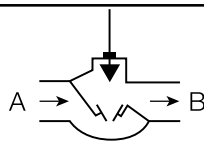
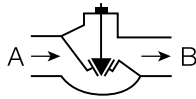
NO (NO.U) Normally Open/Stem Up

VZ22/VZ32/VZ42 valve action without actuator



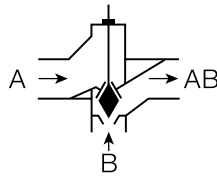
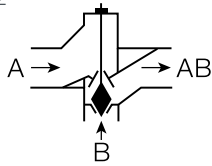
Normally Closed (NC) or Normally Open (NO) terminology applicable on the predominant pattern of 2-way valves.

VZ22



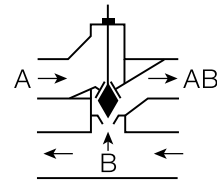
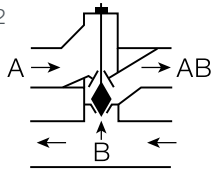
2-way valve. A-B open without actuator and when fitted with an unpowered NO (VZ22) actuator.

VZ32



3-way valve (VZ32) and 3-way valve with bypass (VZ42). A-AB closed (B-AB open) without actuator and when fitted with an unpowered NO actuator.

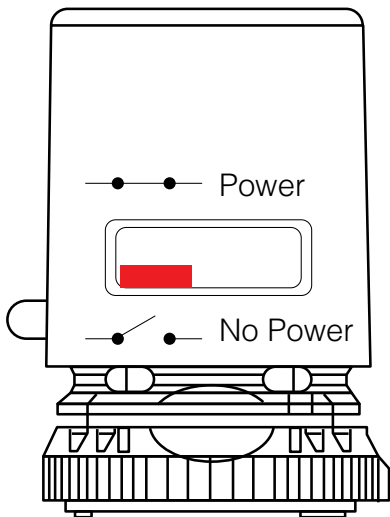
VZ42



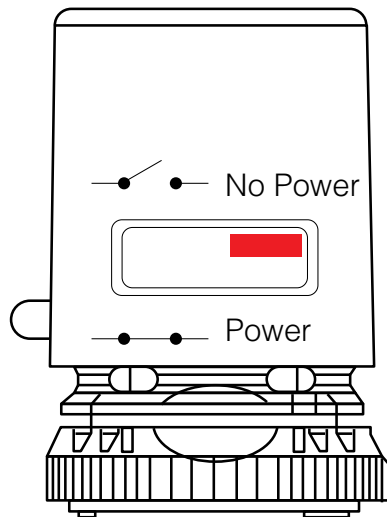
Stem Position Indicator

The position indicator (the red indicator behind the window on the face of the actuator) shows the actuator position against the powered or no power function.

NC (Normally Closed)



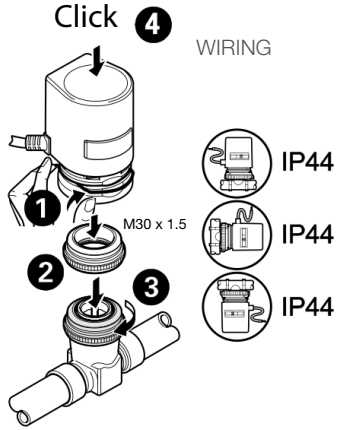
NO (Normally Open)



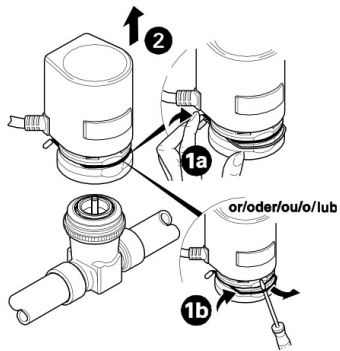
Mounting

Caution: Electrical connection cable must not touch hot pipework.

Mounting



Dismounting



Wiring

