Thermic Valve Actuators

Features

- 24Vac/dc and 230Vac/dc versions
- Visual position indicator
- Normally closed and normally open versions

Specification

Power supply:	
VT-TWA-Z24	24Vac/dc (+10, -15%)
VT-TWA-Z230	230Vac/dc (+10, -15%)
Frequency	50/60Hz
Power consumption	2W
Control type	Thermal
Close of force	90N
Stroke	2.8mm
Full stroke time	3 minutes (approx)
Ambient temperature	2 to 60°C
Protection	IP41
Housing material	PBT
Cable length	1.2m
Country of origin	Slovenia

Product Codes

VT-TWA-Z24-NO
24Vac/dc Normally open thermal actuator

VT-TWA-Z24-NC
24Vac/dc Normally closed thermal actuator

VT-TWA-Z230-NO
230Vac/dc Normally open thermal actuator

VT-TWA-Z230-NC
230Vac/dc Normally closed thermal actuator

Technical Overview

The VT-TWA range of thermal actuators are used with the VT-VZL range of short stroke valves. They provide a cost effective solution for the control of hot and chilled water for fan coil units, small re-heaters and re-coolers in temperature control systems.

Operation

The thermal actuators rely on the thermal expansion principle to move the valve stem, and on its contraction to move it back again.

The actuator is equipped with a visual position indicator to show the open or closed position of the valve.
The actuator is made for either 24V or 230V supply in both normally closed (NC) or normally open (NO) versions (valve positions with no supply voltage to the actuator).

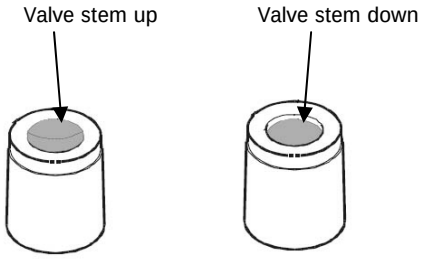
The VT-VZL valves are normally closed, i.e. the valve stem is driven up, fully closing the A to AB path, under its internal spring. For the 4-port version only, the B to AB path is fully open.
The actuator (NO version) will thus fit on the valve with the valve stem up in the un-energised state, and will drive the valve stem down when it is energised, opening the A to AB path (and closing the B to AB path for the 4-port version only).

The VT-TWA-Zxx-NC (normally closed) actuator has an internal spring and is fitted with a split ring to hold the spring closed in its off -the-shelf state. The split ring allows the actuator to be fitted to the valve. Once fitted, the split ring is removed, and the actuator spring drives the valve stem down and closes / opens the VT-VZL valve. When the actuator is energised, the wax pellet pushes up against the actuator spring and drives the valve open / closed.

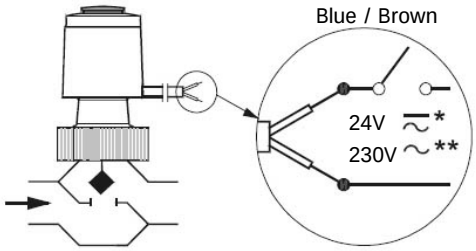
Normally closed (NC) Version

Valve Position Indication
The valve position is indicated by position of the inner black cover relative to the white outer sleeve of the actuator. When the inner black cover projects above the white outer sleeve, the valve stem is up, and as the actuator moves the stem
down, the inner black cover moves down below the level of the white outer sleeve.

Operation (continued)



Connections

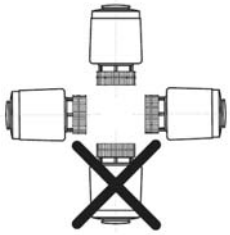


Installation

1. The actuator should be mounted with the valve stem either horizontal or pointing upwards.

2. The actuator should be placed over the top of the VT-VZL valve and fixed to the valve body by means of a mounting ring which requires no tools for mounting.

3. The ring should be tightened by hand.



Dimensions