

ETE, ETM Series

Electrothermal actuators

Technical Data Sheet



Description

ETE and ETM Series electrothermal actuators are ON/OFF and modulating motors respectively for **VU Series** zone valves, to which they can be easily fixed by means of a bayonet fitting. These reliable, low-noise actuators are equipped with a device for manual valve control if no power is available.

ETE



Electrothermal actuator with ON/OFF operation for **VU Series** zone valves. Normally open (NO) auxiliary microswitch for supplementary controls (e.g. pump, metering). Bayonet-fitting for connection to valve body. Manual control device. Consumption: 18W at 24V and 20W at 230V. Stroke: 5.5mm. Disc thrust: 250N. Positioning time: 4min.

Compliant with LVD 2014/35/EU and EMC 2014/30/EU.
Compliant UNI 9497/89.

Type	Part No.	Power supply	Protection	Weight (Kg)
ETE	ETE24BO	24V	IP20	0.3
ETE	ETE220BO	230V	IP20	0.3

ETM



Modulating electrothermal actuator. Manual control device. Consumption: 18W. Steady state: 3W.

- ETM24 for use in conjunction with 16 VDC controllers powered by servomotor; complete with 6 x 0.75 mm² cable, L = 1 m.
- ETM24-12 for use in conjunction with 24 VAC controllers; complete with 4 x 0.75 mm² cable, L = 1 m.

Compliant UNI 9497/89.

Type	Part No.	Power supply	Protection	Weight (Kg)
ETM	ETM24	24V	IP44	0.3
ETM	ETM24-12	24V	IP44	0.3

Technical features	
Supply voltage	230V 50/60Hz - 24V 50/60 Hz
Maximum power consumption	18W (24V) - 20W (230V)
Maximum auxiliary load	700 mA - 3A resistive
Operating temperature	0÷50°C
Storage temperature	-10÷60°C
Max. ambient humidity	90% non-condensing
Positioning time	240s approx.
Stroke	5 mm
Maximum thrust	250N
Cable gland	Pg7
Protection rating	ETE: IP20 - ETM: IP44
Connection to valve body	bayonet

Features	
Cap	Polyamide V0
Base	Polycarbonate V0

Application

ETE and ETM Series electrothermal actuators are used to operate **VU Series** zone valves in heating and air conditioning systems that require ON/OFF or MODULATING control of the hot and cold water flow.

Operation

ETE and **ETM Series** actuators are operated by a wax thermostatic element located inside the actuator, which in turn is activated by an electrical resistor in response to a signal emitted by a room thermostat (or programmable thermostat). When it receives the permissive from the control device (thermostat or programmable thermostat), the electrical resistor wound round the thermostatic element generates heat as a result of the current passing through it. As the thermostatic element heats up, the substance inside it expands and exerts a force on the movable stem, causing the valve disc to move, thus opening the **VU220, VU225, VU320 and VU325 Series** normally closed valves. When the stem completes its full descent, the stroke end microswitch interrupts the power supply. This solution prevents damage to the actuator if the normal movement of the valve disc is impeded for any reason (foreign bodies on seat, etc.).

ETE Series actuators are also equipped with an auxiliary contact (part number suffix BO) for additional controls (metering, control of a pump, fan or other devices).

If no power is available, **VU Series** normally closed valves can be opened by turning the knob of the **ETE** or **ETM Series** actuator to the manual position.

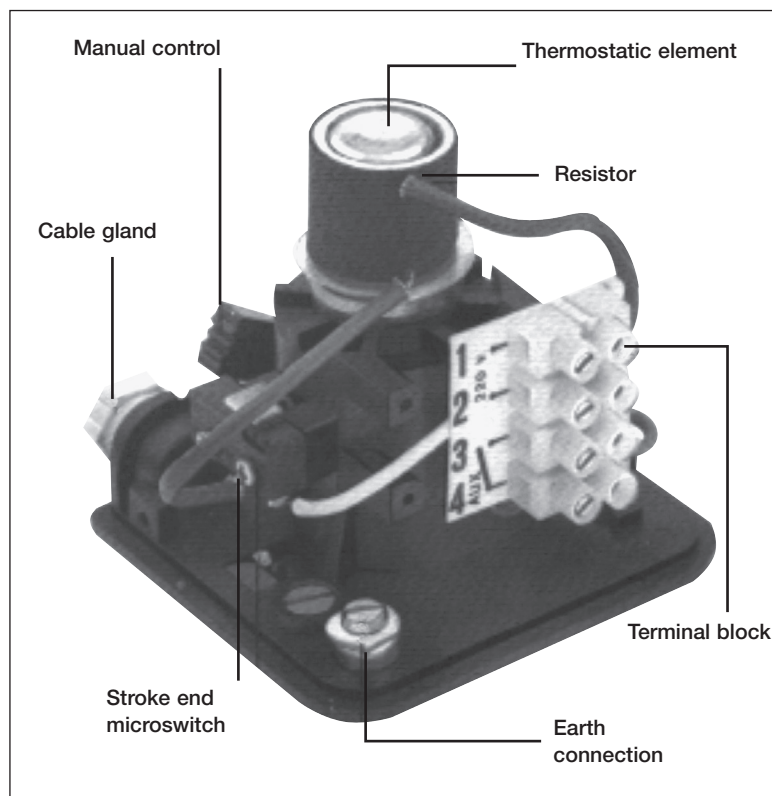
The reliability of **ETE** and **ETM Series** actuators is guaranteed by the fact that every single product undergoes testing.

Installation

The actuators can be installed on **VU Series** zone valves by means of a bayonet fitting, as follows:

- 1- Position the actuator on the bayonet fitting at an angle of 45° to the direction of flow marked on the valve body
- 2- Turn the actuator around its axis in a clockwise direction.

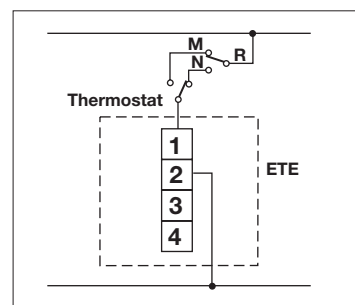
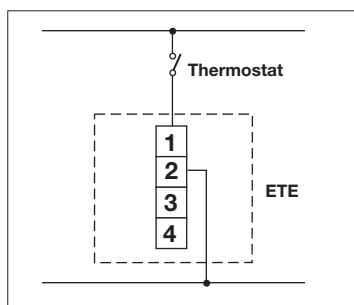
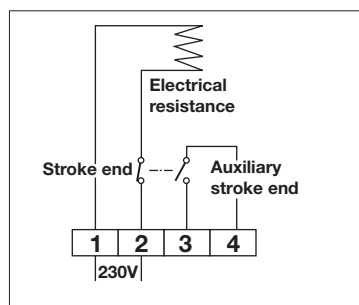
The actuators operate in any position. For obvious reasons (infiltration, condensation, etc.), however, you are advised not to install the valve with the actuator facing downwards. The actuator must be in the rest position before removal, so wait at least 3 minutes after power-off before removing the actuator from its seat. With regard to the connections and respective electrical system, adhere to the applicable regulations and electrical connections shown.



Electrical connections

To access the terminal block, remove the cap, having first removed the fixing screws.

ETE



ETM

ETM24	
WHITE	24V 50/60Hz power supply
BLACK	24V 50/60Hz power supply
GREEN	X2 Input 10-2 VDC
BROWN	X1 Input 2-10 VDC
RED	G1 Output + 16 VDC
BLUE	Brown, Common

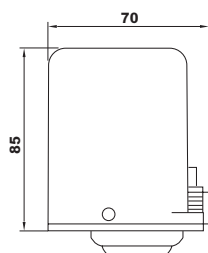
ETM24-12	
WHITE	24V 50/60Hz power supply
GREEN	X2 Input 10-2 VDC
BROWN	X1 Input 2-10 VDC
BLUE	Common

Maintenance

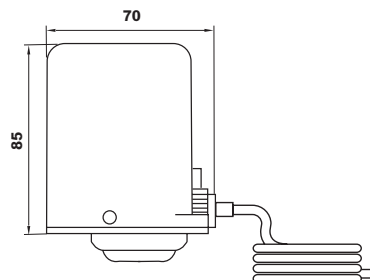
The actuator is essentially maintenance-free. A minimum of care must be taken, however, to ensure that it is kept dry and clean, and checked/inspected at least once a year.

Overall dimensions (mm)

ETE



ETM



Specification text

ETE Series

Electrothermal actuator **ETE Series** with ON/OFF operation for **ETE** zone valves – WATTS BRAND. Normally open (NO) auxiliary microswitch for supplementary controls. Bayonet-fitting for connection to valve body. Manual control device. Consumption: 18W (24V) - 20W (230V). Power supply 230VAC and 24VDC. Stroke: 5mm. Disc thrust: 250N. Compliant with UNI EN 9497/89. Compliant with LVD 2014/35/EU and EMC 2014/30/EU.

ETM Series

modulating electrothermal actuator **ETM Series** – WATTS brand - for use in conjunction with 16 VDC or 24 VAC controllers. Manual control device. Consumption: 18W. Steady state: 3W. Compliant with UNI EN 9497/89.

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding.

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