

THERMOELECTRIC ACTUATORS

2 wired thermoelectric actuator



Code	Voltage	Type	Opening time
1909	24V	N.C.	180s
1919	230V	N.C.	180s
1929	24V	N.O.	180s
1939	230V	N.O.	180s

4 wired thermoelectric actuator with auxiliary micro-switch



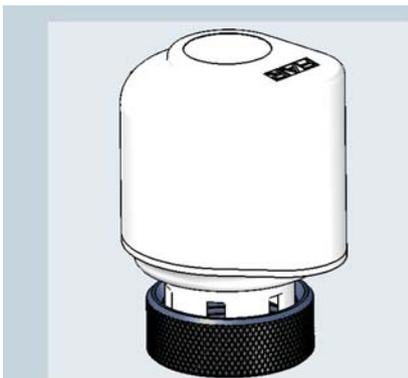
Code	Voltage	Type	Opening time
1913	24V	N.C.	90s
1914	24V	N.C.	180s
1923	230V	N.C.	90s
1924	230V	N.C.	180s

1. DESCRIPTION

The thermoelectric actuator can be used in association with both thermostatic valves and thermoelectric manifolds. It permits automatic opening and closing of all units to which it is interconnected in response to an electrical signal. When the thermostat or control unit - to which the thermoelectric actuator is connected transmits a signal, the inner element is electrically heated, thus fully opening (NO) or closing (NC)

the valve. The position can be identified by means of the cylindrical position indicator on the actuator head.

- If the actuator is of the Normally Closed (NC) type, without an electrical supply the valve will remain shut.
- If the actuator is of the Normally Open (NO) type, without an electrical supply the valve will remain open.



CLOSED POSITION



OPEN POSITION



Art. 1941

Chrome-plated adapter suitable for installation of an electric actuator on thermostatic valves.

2. INSTALLATION

- To install the actuator onto the valve, remove the handle, the plastic support and screw on the adapter Art. 1941 (Illustration 1).
- To carry out installation at the manifold, remove the handle and screw the ring directly onto the blue adapter (Illustration 2).
- Lightly hand-tighten the ring on the thermoelectric actuator. Do not use plumbing wrenches or similar tools. (Illustration 3).
- Take care to install the wire in such a way that it doesn't come into direct contact with pipes, radiators, etc...

Fig.1

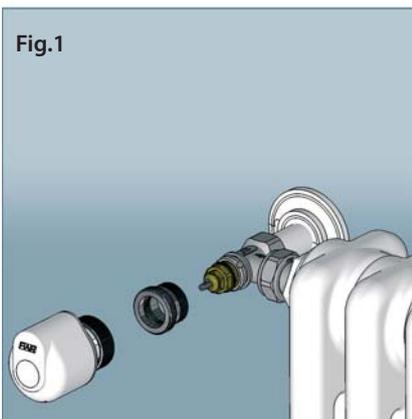


Fig.2

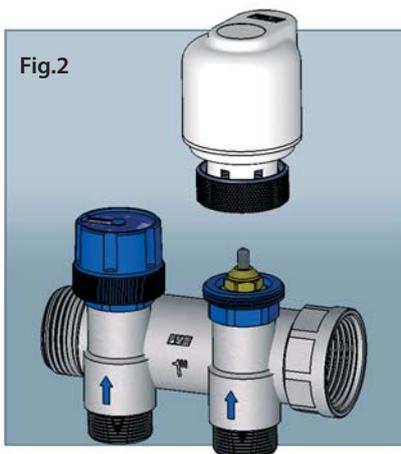
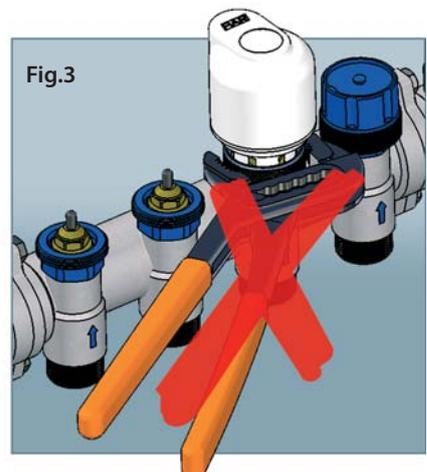


Fig.3



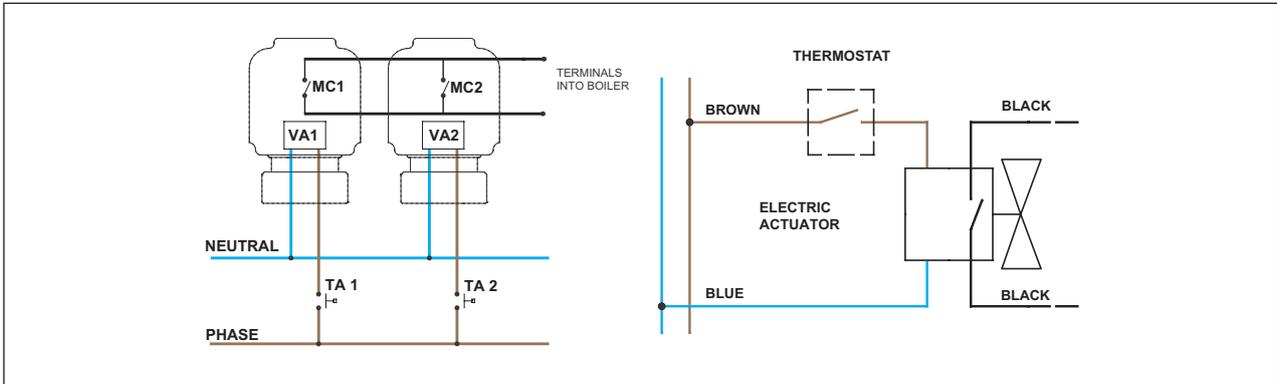
3. ELECTRICAL CONNECTIONS

Art. 1913 - 1914 - 1923 - 1924

An example is shown of connection of 2 VA thermoelectric actuators, controlled by 2 TA thermostats. Once the first thermoelectric actuator is totally open, it closes the circuit of the MC micro-switches, allowing the interconnected device

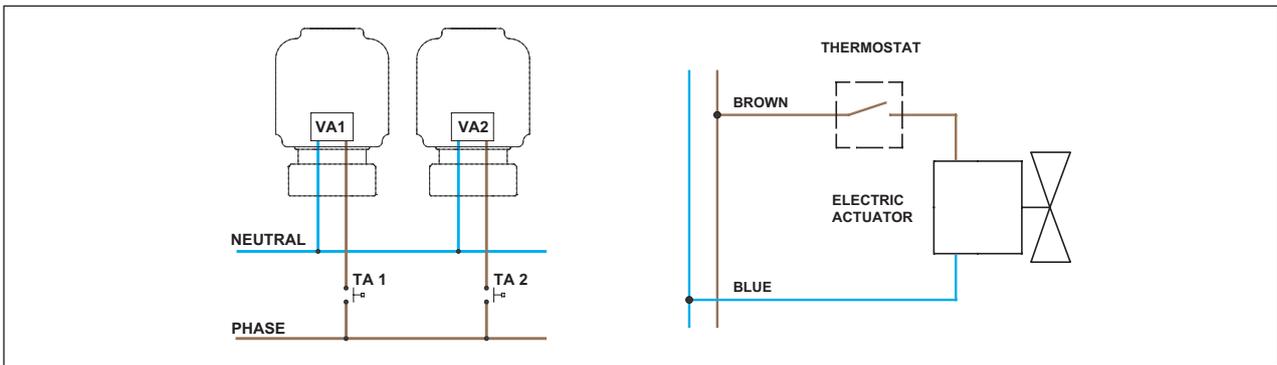
e.g. pump to operate. When the last thermoelectric actuator closes it will switch off the interconnected equipment.

The illustration shows an example of micro-switch connections to terminals at the boiler for ON-OFF operation of the pump.



Art. 1909 - 1919 - 1929 - 1939

An example is shown of connection of 2 VA thermoelectric actuators, controlled by 2 TA thermostats.



The supply wire cannot be replaced: if the wire is damaged, the actuator should be rejected

4. TECHNICAL AND DIMENSIONAL FEATURES

Technical Features

WORKING VOLTAGE Also shown on the actuator: Art. 1913 1914 1909 1929 Art. 1923 1924 1919 1939	24 V 230 V	ROOM TEMPERATURE LIMITS OF THERMOELECTRIC ACTUATOR $T_{min} = -10^{\circ}\text{C}$ $T_{max} = 50^{\circ}\text{C}$
OPENING POWER Voltage Opening power at short time: Constant power Power	24V 230V < 350mA < 165mA 125mA 12mA 3W 3W	SUPPLIED DISCONNECTION Micro-disconnection type 1B
CLOSING / OPENING TIME Art. 1909 - 1919 - 1929 - 1939 - 1914 - 1924 - 180 s. about Art. 1913 - 1923 90 s. about (depending on room temperature)		OVERVOLTAGE CLASS The equipment is designed to Class: 2 Nominal impulsive voltage: 2500 V
CERTIFIED MARK		PLASTIC ENVELOPE Withstands a temperature of 75°C when subjected to a ball test
PROTECTION AS PER EN 60529 Installation in all position: IP54		ACTUATOR The actuator is type 1.AB (voltage variations between 195 V and 250V)
SPRING TENSION 130 N		POLLUTION DEGREE Class II
HUMIDITY From 10 up to 90%, non condensate		CONNECTION WIRE (Brown + Blue)) 2 x 0,35 mm ²
MICRO-SWITCH CONTACT Power intensity permitted: 1 (0, 1) A		AUXILIARY MICRO-SWITCH WIRE Black 2 x 0,35 mm ²

Dimensional Features

