

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 |

 =Stocked by CHNZ

4 wired thermoelectric actuator with auxiliary micro-switch



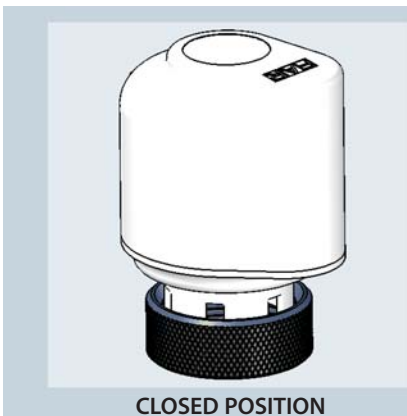
| Code | Voltage | Type | Opening time |
|------|---------|------|--------------|
| 1913 | 24V | N.C. | 90s |
| 1914 | 24V | N.C. | 180s |
| 1923 | 230V | N.C. | 90s |
| 1924 | 230V | N.C. | 180s |

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.



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

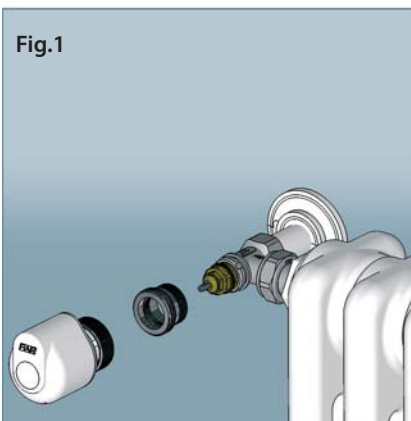


Fig.2

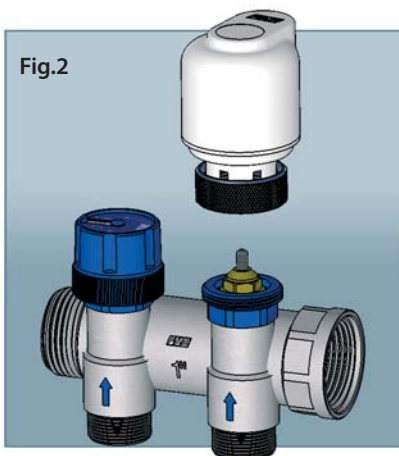
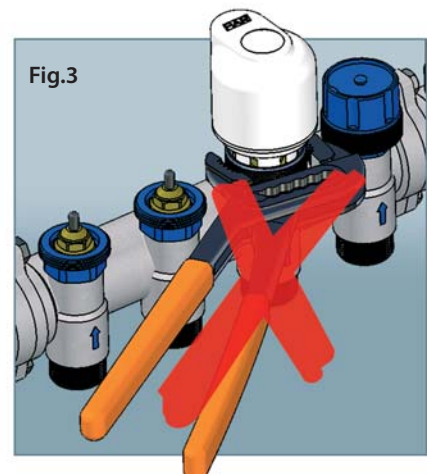


Fig.3



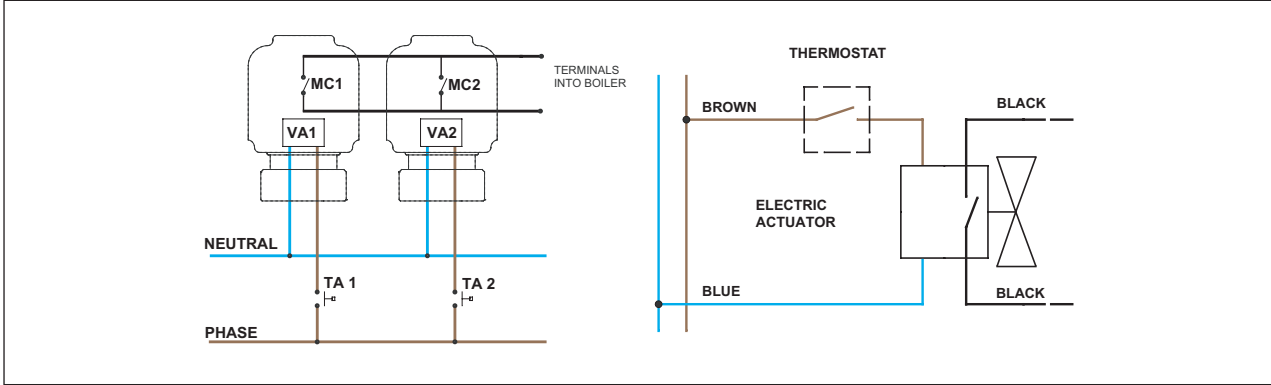
3. ELECTRICAL CONNECTIONS

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

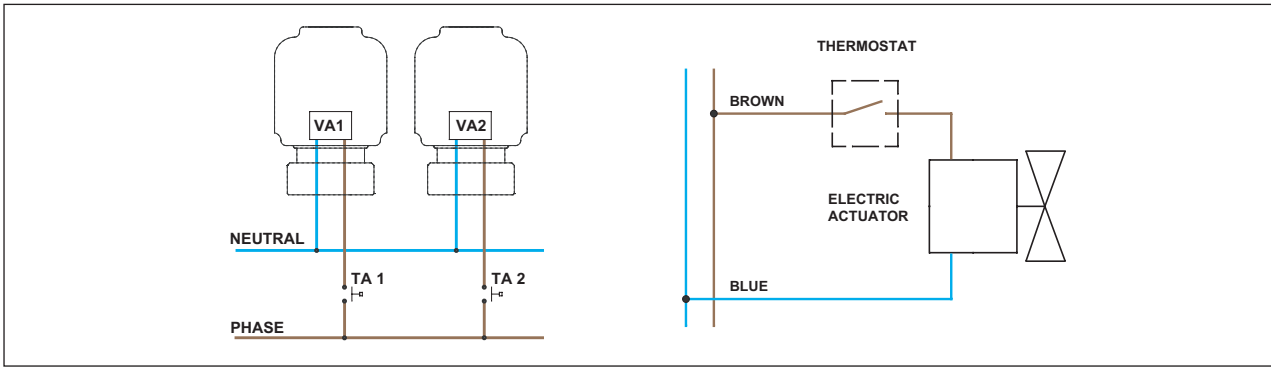
e.g. pump to operate. When the last thermoelectric actuator closes it will switch off the interconnected equipment.

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 $T_{min} = -10^{\circ}C$ $T_{max} = 50^{\circ}C$ |
| 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

