



### Silent Compact Thermoelectric Actuators **NORMALLY CLOSED**

#### Principles of Operation

Spartan's thermoelectric actuators (ME1708 normally closed) utilize a highly refined wax filled element with piston/stem and patented packless elastomer seal. They are silent, extremely compact, inherently fail safe and can operate on hot and cold water, and low pressure steam to 15PSI. A PTC (positive-temperature-coefficient) semi-conductive disc is both temperature control and heat source, inherently controlling at 90°C (194°F). The wax is chemically refined to melt at 70°C (158°F). The element expands in direct proportion to the amount of wax melted, driving the stem through its travel to open the valve. No other travel or thermostatic switches are required. Life expectancy is therefore in multiple decades and guaranteed by Spartan Peripheral Devices for 5 years.

#### Spartan Valve Bodies

These actuators can be installed on a multitude of **Spartan** 2 way & 3 way terminal unit control valve bodies with different types of connections.

Compatible with V240FLT, VN240, V241, V243, VN243, V245, V246-12F, V243-12I, V320, V321, and V325 series of zone valve bodies.

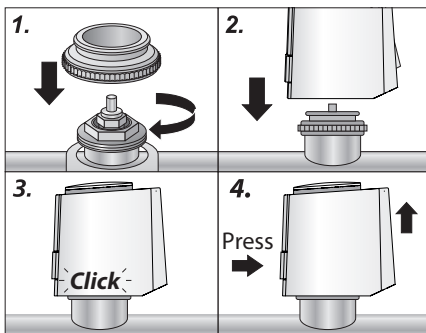
#### See Zone Valve Bodies Data Sheet.

### QUICK BAYONET COUPLING INSTALLATION

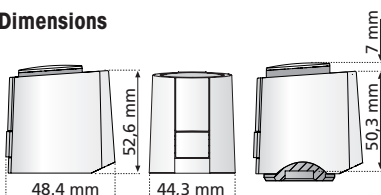
Thread the valve adapter onto the valve body. Once installed, simply snap on the ME1708 Actuator to the valve adapter. They are designed for quick and easy attachment, and release.

#### First Open Function

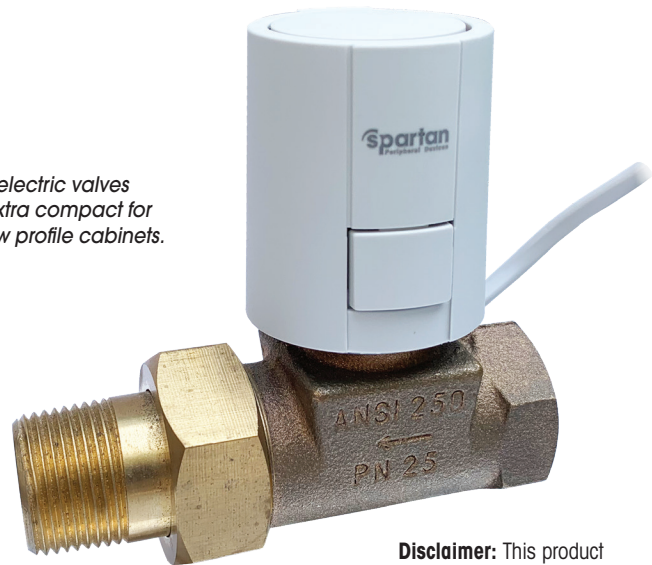
In its delivery condition, the Actuator is kept open when de-energised due to the First-Open function. During the first electrical start-up, the First-Open function is automatically unlocked by applying the operating voltage for more than 6 minutes. The valve drive is now fully operable.



#### Dimensions



*Spartan thermoelectric valves are silent and extra compact for installation in low profile cabinets.*

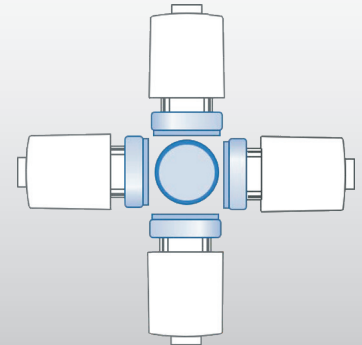


### TECHNICAL DATA

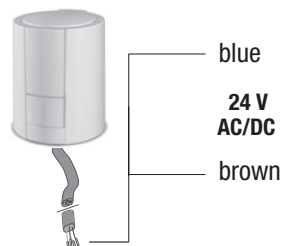
- Power off position:** NORMALLY CLOSED
- Operating voltage:** 24 V AC/DC, +20%...-10%
- Max. inrush current:** < 300 mA during max. 2 min.
- Operating power:** 1W
- Stroke (actuator travel):** 5.0 mm
- Actuating force:** 100 N ±5%
- Storage temperature:** -25°C to +60°C (-12°F to 140°F)
- Ambient temperature:** 0 to +60°C (32°F to 140°F)
- Housing material / colour:** Polyamide / light grey (RAL 7035)
- Cable length:** 1 m Weight with connecting cable (1 m): approx. 150 g
- Reaction time:** Approx 4 mins (Full stroke)
- Conformity**
- Surge protection according to:** EN 60730-1 min. 2.5 kV
- Degree / class of protection:** IP 54
- CE conformity according to:** EN 60730
- Power supply:** Class II as per UL/GSA
- Conforms to ROHS

**Disclaimer:** This product must not be used outside of the specified applications. Installation should only be carried out by a licensed, and trained, installer. All local regulations and codes must be followed, and complied with, during the installation of this product.

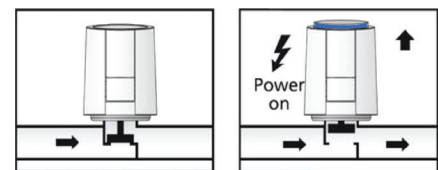
#### Recommended Installation Position



### WIRING DIAGRAM



### POSITION INDICATOR



The position indicator of the actuator allows you to identify, at a glance, the operating condition (valve open or closed). It is also possible to know the current operating state in the dark by feeling the position indicator (Indicator up = Powered).