



Thermal Actuator submittal

Job _____

Designer _____

Contact _____

Two-wire 24V slow opening thermal actuator (without end switch) for radiant cooling and heating manifolds. It is compatible with most common manifolds using a standard threaded ring adapter. It comes with a VA10 ring adapter that also works with the Messana manifold (other adapters are available). The actuator mounts on the manifold loop by snapping onto the pre-installed ring adapter. It is normally closed (NC), when energized, it opens the loop valve to allow the activation of the related zone.

The actuator mechanism is based on a PTC resistor-heated elastic element and a return compression spring. When the elastic element is heated by applying the nominal 24V voltage to the PTC resistor, it expands and moves an integrated plunger to open the valve. When the PTC resistor stop being energized, the elastic element shrinks and the return compression spring moves the plunger back and closes the valve.

Technical specifications¹

Model	Two-wire thermal actuator (without end switch)
Part number	MTANC524
Features	<ul style="list-style-type: none"> Easy snap-on installation on standard ring valve adapter (VA10 adapter included) 360° installation position and rotation Compatible with the majority of manifold on the market Normally closed (NC) 5 ft of cable compared to standard 3ft Visible blue ring to visually indicate the actuator status (blue ring is shown when open) First-open function (actuator comes partially open, until the first activation, for 6 minutes minimum) 5 ft of cable (compared to standard 3 ft) Compact modern design and quite operation Superior reliability with long life expectancy and maintenance-free Over-voltage protection
Size and weight	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p>nominal size (closed)</p> <p>W 1 7/8" (48.4 mm)</p> <p>L 1 3/4" (44.3 mm)</p> <p>H 2 1/16" (52.2 mm)</p> <p>with VA10 adapter (closed)</p> <p>H 2 3/16" (55.2 mm)</p> <p>with VA10 adapter (opened)</p> <p>H 2 3/16" (55.2 mm) + 1/4" (7 mm)</p> <p>weight 0.27 lbs (123 g) with connection cable</p> </div> <div style="flex: 1; text-align: center;"> </div> </div>
Valve adapter	VA 10 spacer ring (M30x1.5) (included with the product)
Material	Polyamide
Color and finishing	Light gray (RAL 7035)



Operating voltage	24V AC/DC, +20%...-10%, 0-60Hz
Electrical connection	20 AWG (0.75 mm ²) 2 conductors, blue (0 V) and brown (24 V) with 5 ft gray cable
Operating power	1 W (to maintain the valve open)
Max. inrush current	< 300 mA during max. 2 min. (Max power 6W)
Voltage surge strength	2.5 kV (according to EN 60730)
Stroke	1/4" (7.0 mm)
Actuation force	100 N +5%
Closing and opening times	Approximately 3 minutes
Fluid temperature range	36 °F to 210 °F (2 °C to +100 °C)
Storage temperature	0 °F to 140 °F (-18 °C to 60 °C)
Operating temperature	32 °F to 140 °F (0 °C to +60 °C)
Min. height clearances	2 1/2" (65 mm)
Ingress protection	IP 54 (class III) in all installation positions (equivalent to Nema 3s)
Packaging	Size (LxWxH): 3" x 2" x 3 1/2" (75x50x90 mm) Weight: 0.3 lb (140 g) Instruction are printed inside the box

Notes

1. Size, weights and technical characteristics may vary without prior notice.