



ELECTROTHERMAL ACTUATORS 100N / 140N TO BE USED WITH VFX VALVES

SE1

APPLICATION

Electrothermal actuator SE1 is used to control zone and fan-coil valves in HVAC systems. SE1 is suitable to drive VFX valve bodies series.

When actuators are not powered the valves are normally closed on direct way.

When actuators are powered, opens the direct way and close the third way. Two action types are available: On-Off and modulating 0...10 Vdc.

The sensing element inside the capsule spreads out causing the movement of the shaft. So the stem valve connected to the shaft moves and opens the valve.

When actuator is powered off, the shaft goes up and the valve moves to the closed position by a spring return. The assembly actuator/valve body is done easily with a metal ring nut.

The actuator is fitted with a position valve indication.

SE1 is suitable for control valves VFX.

TYPE	FORCE N	STROKE mm	POWER SUPPLY Vac 50/60 HZ	ACTION	CONSUMPTION VA
SE1T24	100	2.5	24 ±10%	On/Off	3.0
SE1T230	100	2.5	230 ±10%	On/Off	3.0
SE1T24S	100	2.5	24 ±10%	On/Off	3.0
SE1T230S	100	2.5	230 ±10%	On/Off	3.0
SE1TP24	140	2.5	24 ±10%	On/Off	3.0
SE1TP230	140	2.5	230 ±10%	On/Off	3.0
SE1TP24S	140	2.5	24 ±10%	On/Off	3.0
SE1TP230S	140	2.5	230 ±10%	On/Off	3.0
SE1M24	100	2.5	24 ±10%	modulating 0...10 Vdc	3.5
SE1MP24	140	2.5	24 ±10%	modulating 0...10 Vdc	3.5

S with 1 auxiliary microswitch, only for models SE1T and SE1TP (On-Off)

TECHNICAL DATA

Power supply:

SE1M24, SE1MP24	24 Vac ± 10% 50/60 Hz
SE1T24, SE1TP24	24 Vac ± 10% 50/60 Hz
SE1T230, SE1TP230	230 Vac ± 10% 50/60 Hz

Peak current:

SE1M24, SE1MP24	< 0.25 A
SE1T24, SE1TP24	< 0.25 A
SE1T230, SE1TP230	< 0.70 A

Aux. switch rating: 250 Vac 3 A

Sensing element: special wax

Timing:

SE1T230, SE1TP230	3.5 min (2.5 mm at 20 °C)
SE1T24, SE1TP24	4.5 min (2.5 mm at 20 °C)

Working temp.: 0...50 °C

Working humidity: 10...90 % r.h. (without condensing)

Storage temp.: -20...70 °C

< 95% r.h.

Cable: PVC, section 2 x 0.50 mm², length 2 m

Connection: metal ring M30 x 1.5

Housing: matt polycarbonate

Protection class: IP40, IP44 if mounted vertically
class II (SE1T230, SE1TP230),
class III (SE1T24, SE1TP24, SE1M24, SE1MP24)

Self extinguishing: V0 - V1 according to UL94

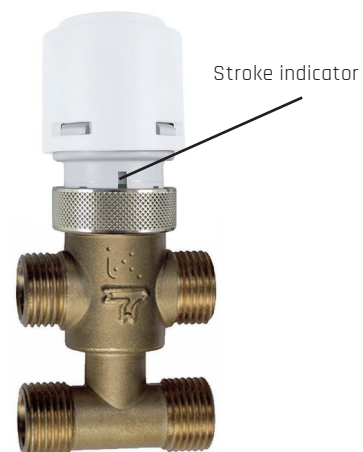
Dimensions:
SE1T Ø 40 x 61 mm
SE1M Ø 40 x 78 mm

Weight: 200 g

INSTALLATIONS

Mount the thermal actuator on the valve body and tighten the metal ring nut on the thread of bonnet valve body (fig.1). This operation must be done when the actuator is cold (not powered on). Perform the electrical connections as per electrical wiring diagrams. Pay attention that the power supply value corresponds to the value of actuator indicated on label stuck on the unit.

fig.1



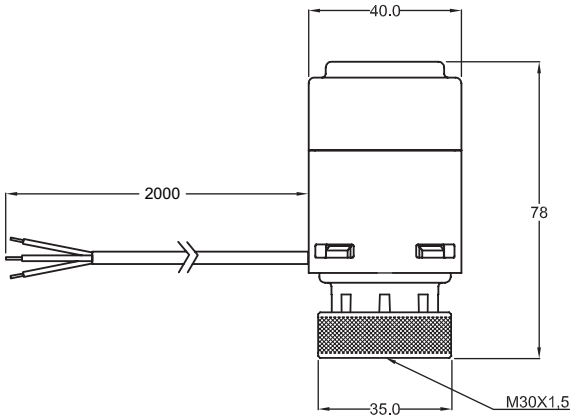
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WIRING DIAGRAM AND DIMENSIONS (mm)

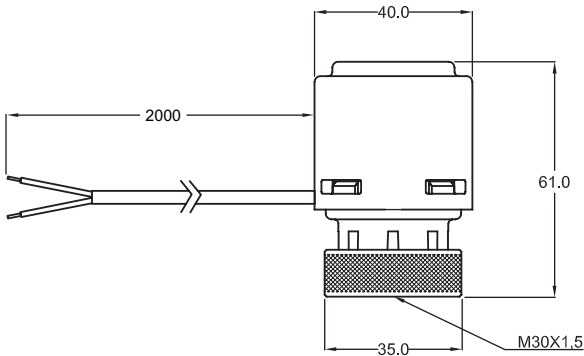
SE1M24, SE1MP24

COM	Blue
IN. (Y) 0...10 V	Black
24 Vac	Brown



SE1T24, SE1TP24 / SE1T230, SE1TP230

COM	Blue
24/230 Vac SE1T24, SE1TP24/ SE1T230, SE1TP230	Brown



SE1T24S, SE1TP24S / SE1T230S, SE1TP230S

COM	Blue
24/230 Vac SE1T24S, SE1TP24S/ SE1T230S, SE1TP230S	Brown
Contatto ausiliario	Grey
	Black

Closed valve A-AB way, contact open
Open valve A-AB way, contact closed

