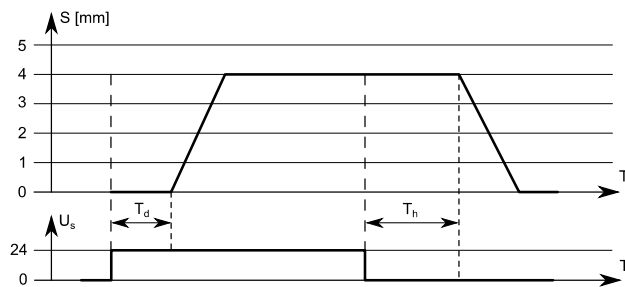


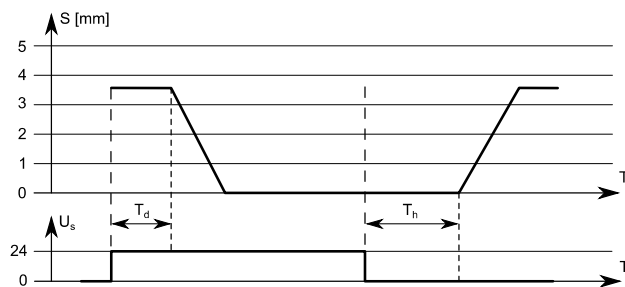
THERMAL ACTUATORS AA4004 AND AA4104

AA4004 and AA4104 thermal actuators are designed for controlling control valves in HVAC automation systems. The thermal actuator can be controlled by 24 Vac on/off control signal or PWM signal. AA4004 is normally closed and AA4104 is normally open. The following figures illustrate the function principles of the AA4004 and AA4104 thermal actuators.

AA4004:

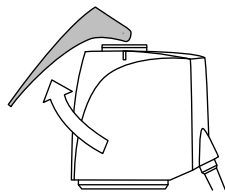


AA4104:



S = stroke
U_s = supply voltage
T = time
T_d = dead time
T_h = hold time

By removing the actuator cover, you can prevent unauthorized removal of the AA4004 and AA4104 actuators.



NOTE: Do not use ammoniac materials or glues near the AA4004 and AA4104 thermal actuators.

AA4004 and AA4104 thermal actuators are mounted to the NV2 control valves by using a VA 80 adapter ring. Special adapter rings are also available for other valve manufacturers' valves.

AA4004 thermal actuators are delivered in "First open" status which leaves the valve a bit open after actuator assembly. This allows the system filling and flushing even if the control system is not yet functioning. The actuator set to normal operation after the actuator is connected to the supply voltage for at least 6 minutes. You cannot activate the "First open" function again.



Technical data:

Supply	24 Vac/Vdc (22...28 V)
Power consumption	1.8 W
Operating current	75 mA
Start-up current	250 mA (max. 2 minutes)
Force	95...105 N
Stroke	4 mm
Running time	approx. 3 min (close / open)
De-energized position	
AA4004	closed (NC)
AA4104	open (NO)
Mounting	by using an adapter ring (sold separately)
Ambient temperature	0...60 °C
Housing	IP54, polyamide

Wiring:

Blue	0 V
Brown	24 V

Ordering guide:

Model	Product number	Description
AA4004	1210040	thermal actuator 24 V, NC, removable cable (sold separately)
AA4104	1210045	thermal actuator 24 V, NO, removable cable (sold separately)
BA-ALL.5.2.01	1220021	removable cable, 1 m
BA-ALL.5.2.02	1220022	removable cable, 2 m
BA-ALL.5.2.03	1220023	removable cable, 3 m
BA-ALL.5.2.04	1220024	removable cable, 4 m
BA-ALL.5.2.05	1220025	removable cable, 5 m
BA-ALL.5.2.10	1220026	removable cable, 10 m
BA-ALL.5.2.15	1220027	removable cable, 15 m
BA-ALL.5.2.20	1220028	removable cable, 20 m

Products fulfill the requirements of directive 2004/108/EC and are in accordance with the standards EN61000-6-3 (Emission) and EN61000-6-2 (Immunity).