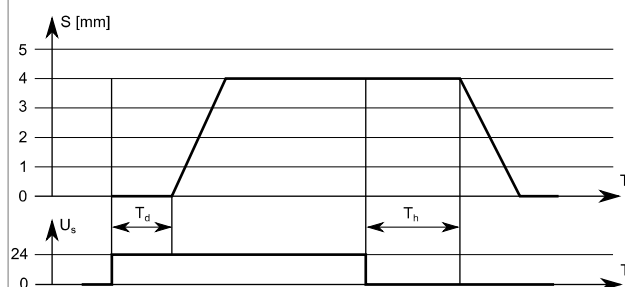


## THERMAL ACTUATORS BA4004 AND BA4104

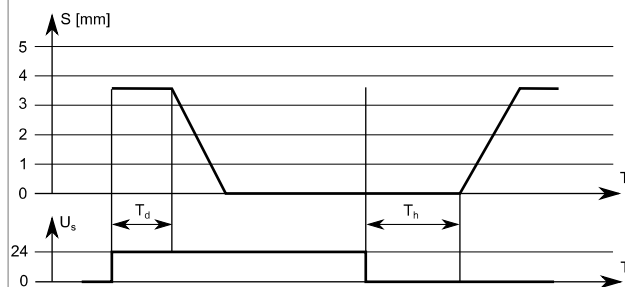
BA4004 and BA4104 thermal actuators are designed for controlling control valves in HVAC automation systems. The thermal actuator can be controlled by 24 Vac on/off control signal or PWM signal. BA4004 is normally closed and BA4104 is normally open.

The following figures illustrate the function principles of the BA4004 and BA4104 thermal actuators.

BA4004:



BA4104:



S = stroke  
U<sub>s</sub> = supply voltage  
T = time  
T<sub>d</sub> = dead time  
T<sub>h</sub> = hold time

**NOTE:** Do not use ammoniac materials or glues near the BA4004 and BA4105 thermal actuators.

BA4004 and BA4104 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.

BA4004 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...26 V)
Power consumption	1,8 W
Operating current	80 mA
Start-up current	250 mA (max. 2 minutes)
Force	95...105 N
Stroke	4 mm
Running time	approx. 4 min (close/open)
De-energized position	
BA4004	closed (NC)
BA4104	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
BA4004.00.01	1210010	thermal actuator 24 V, NC, fixed cable (1 m)
BA4104.00.01	1210020	thermal actuator 24 V, NO, fixed cable (1 m)

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