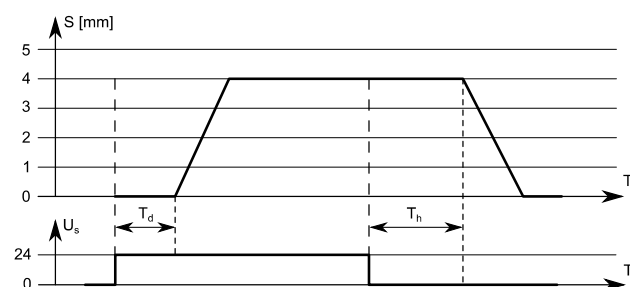


## THERMAL ACTUATORS A4004 AND A4104

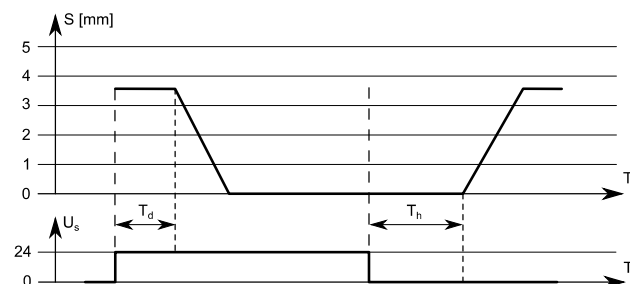
A4004 and A4104 thermal actuators are designed for controlling control valves in HVAC automation systems. The thermal actuator can be controlled by 24 Vac on/off control signal or PWM signal. A4004 is normally closed and A4104 is normally open.

The following figures illustrate the function principles of the A4004 and A4104 thermal actuators.

### A4004:



### A4104:



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 thermal actuators.

A4004 and A4104 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.

A4004 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 |  |
| A4004                 | closed (NC)                                |
| A4104                 | 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                                  |
|-------------|----------------|--|
| A4004.XX.01 | 1210010        | thermal actuator 24 V, NC, fixed cable (1 m) |
| A4104.XX.01 | 1210020        | thermal actuator 24 V, NO, fixed cable (1 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).