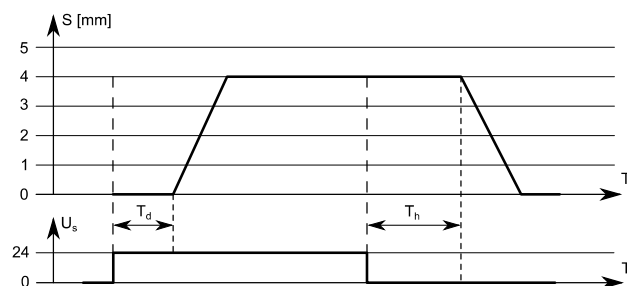


## THERMAL ACTUATORS AST 40405 AND AST 41405

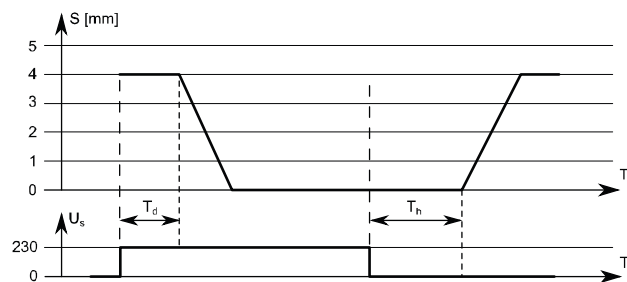
AST 40405 and AST 41405 thermal actuators are designed for controlling control valves in HVAC automation systems. The thermal actuator can be controlled by 24 Vac/dc on/off control signal or PWM signal. AST 40405 is normally closed and AST 41405 is normally open.

The following figures illustrate the function principles of the thermal actuators.

### AST 40405:



### AST 41405:



S = stroke  
Us = supply voltage  
T = time  
Td = dead time  
Th = hold time

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

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.

AST 40405 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	1,0 W
Operating current	42 mA
Start-up current	< 300 mA (max. 2 min.)
Force	95...105 N
Stroke	4 mm
Running time	approx. 3,5 min (close / open)
De-energized position	
AST 40405	closed (NC), actuator in lower position
AST 41405	open (NO), actuator in upper position
Mounting	by using an adapter ring (sold separately)
Fluid temperature	0...100 °C
Ambient temperature	0...60 °C
Housing	IP54, polyamide

### Wiring:

Blue	0 V
Brown	24 V

### Ordering guide:

Model	Product number	Description
AST 40405-00N00-0	1210041	thermal actuator 24 V, NC, removable cable (sold separately)
AST 41405-10N00-0	1210046	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.5.2.05	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