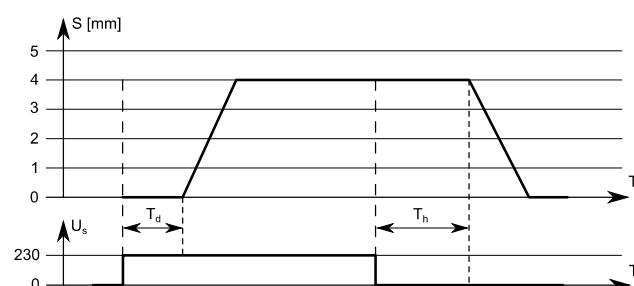


THERMAL ACTUATOR AST 20405 AND AST 21405

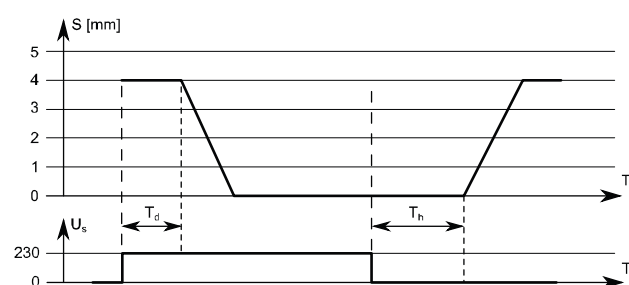
AST 20405 and AST 21405 thermal actuators are designed for controlling control valves in HVAC automation systems. The thermal actuator can be controlled by 230 Vac on/off control signal or PWM signal.

The following figure illustrates the function principles of the thermal actuators.

AST 20405:



AST 21405:



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 20405 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	230 Vac (207...253 V)
Power consumption	1,0 W
Operating current	4,3 mA
Start-up current	< 550 mA (max. 100 ms)
Force	95...105 N
Stroke	4 mm
Running time	approx. 3,5 min (close / open)
De-energized position	
AST 20405	closed (NC), actuator in lower position
AST 21405	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	230 Vac

Ordering guide:

Model	Product number	Description
AST 20405-00N00-0	1210031	thermal actuator 230 V, NC, removable cable (sold separately)
AST 21405-10N00-0	1210032	thermal actuator 230 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

Products fulfill the requirements of directives 2004/108/EC and 2006/95/EC and are in accordance with the standards EN60730-1, EN60730-2-14:2009-6 and EN60730-2-14/A2:2008.