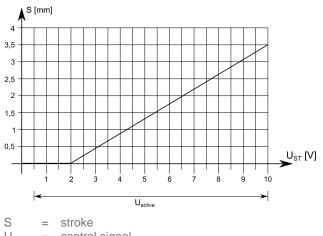


THERMAL ACTUATOR APR 40405

APR 40405 thermal actuators are designed for controlling control valves in HVAC automation systems. The thermal actuator is controlled by 0...10 Vdc control signal according to the following figure.



U_{ST} = control signal U_{active} = active control signal range

When the control signal is under 0,5 V, the actuator moves to stand-by mode for 20 minutes to ensure fast response time. After the stand-by mode the actuator moves to power saving mode.

The actuator calibrates automatically when power is switched on for the first time. The actuator calibrates also when the control signal is over 2 V for 24 hours.

During the calibration cycle, the actuator is driven to closed position and is kept closed for 20 seconds. The actuator returns to the control signal position after the calibration.

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.

APR 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 (22...28 V) Power consumption 1 W Operating current 42 mA Start-up current < 300 mA (max. 2 min.) Force 95...105 N Control signal 0...10 Vdc Control range 2...10 V Stroke 3.5 mm Running time approx. 30 s / mm De-energized position closed (NC), actuator in lower position Mounting By using an adapter ring (sold separately). Actuator is not recommended to install upside down. 0...100 °C Fluid temperature Ambient temperature 0...60 °C Housing IP54, polyamide Wiring:

Blue	0 V
Black	24 Vac
Red	010 Vdc

Ordering guide:		
Model	Product number	Description
APR 40405- 01N00-0	1210052	thermal actuator 010 V, NC, removable cable (sold separately)
BA-ALL.5.3.01	1220031	removable cable, 1 m
BA-ALL.5.3.02	1220032	removable cable, 2 m
BA-ALL.5.3.03	1220033	removable cable, 3 m
BA-ALL.5.3.05	1220035	removable cable, 5 m
BA-ALL.5.3.10	1220036	removable cable, 10 m
BA-ALL.5.3.15	1220037	removable cable, 15 m
BA-ALL.5.3.20	1220038	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.

Produal Oy

 Keltakalliontie 18, 48770 Kotka FINLAND
 Tel: +358 10 219 9100 / Fax: +358 5 230 9210
 Information is subject to change without prior notice.

info@produal.fi www.produal.com