

VA125...: Thermal drive for unit valves, with stroke indicator

For controllers with switched output (2-point). Used in conjunction with individual-room control systems (TSO, NRT, RDT, *ecos*, *ecolon*) for activating valves of the KVDN.... series. Suitable for use with adaptors to upgrade existing systems. Position indicator in the drive's housing.
Pure white housing (as per RAL 9010) of fire-retardant plastic. Can be changed from 'normally closed' to 'normally open' by removing a special piece. Fitted to valve with thread M30×1.5. Fitting position: vertical to horizontal. White power cable of Ø 0.5 mm² or 0.75 mm², fixed to the housing. Standard version has 1.2 m of cable.

Type	Running time ¹⁾ min	Max. stroke [mm]	Spring pressure [N]	Normally	Power	Weight [kg]
Actuator with bayonet connection						
VA125.2	3	4.5	125	closed (open)	230 V~	0.2
VA125.1	3	4.5	125	closed (open)	24V~/=	0.2
Drives with in-built auxiliary contacts ³⁾ and bayonet connection						
VA125.2S	3	4.5	125	closed	230 V~	0.2
VA125.1S	3	4.5	125	closed	24V~/=	0.2
Power supply	230 V~ ± 15%, 50...60 Hz			Degree of protection with auxiliary contacts	IP 42 (EN 60529)	
	24 V~/= ± 20%, 50...60 Hz				IP 44 (EN 60529)	
Power consumption	230 V	24 V				
in operation	2.5 W	3 W				
on starting	36 W	6 W				
start-up current	150 mA	250 mA				
Max. operating temp.	100°C at valve					
Ambient temperature	-5...50 °C					
Ambient humidity	< 95 %rh					

³⁾ Auxiliary contacts 5(2) A, 230 V; cut-in point 1.5 mm, stroke ± 0.75 mm



Y07549



Y10020

Operation

The actuator has an electrically heated, overrun-proof expansion element which transfers its stroke direct to the valve. It works silently and requires no maintenance.

When the heating element is switched on from cold, the valve (after a warming-up time of about 1.3 minutes) starts to open and has performed 3 mm of stroke after approx. 1.7 minutes. The closing operation is symmetrical (with regard to time) to the opening operation: the expansion element cools down and the valve is closed by spring pressure. The drive's direction of operation can be changed by removing a special piece and then turning a screw.

'Normally closed' (factory setting):-

- Drive has power applied: valve with pushing plug (as types KVDN....), from closed to open.
- Drive has power applied: valve with hanging plug (as type KVDN....), from open to closed.

'Normally open' (piece removed):-

- Drive has power applied: valve with pushing plug (as type KVDN....), from open to closed.
- Drive has power applied: valve with hanging plug (as type KVDN....), from closed to open.

With a 'pulse-pause' clock signal, which effects a periodic open/close position, a quasi-continuous control system can be achieved with a cycle duration of 4 minutes. Permissible cycle duration: either < 4 min or > 12 min. Using the auxiliary contacts (which are available as an accessory and can be fitted later), a circulation pump or a heat counter, for instance, can be switched on.

The auxiliary contacts switch between 35% and 50% stroke. The rating for these auxiliary contacts is 3 A for ohmic load and 2 A for inductive load. The contacts close when the stroke reaches 35% or 50%.

Engineering and fitting notes

Before choosing the switching contacts and the mains fuses, the inrush current of the heating element should be taken into account. To ensure that the given running time can be achieved, the voltage loss in the electric cables should not exceed 10%.

The way to change from 'normally closed' to 'normally open' is described . The position indicator shows which function has been set. When the red indicator is inserted in a black plastic piece, the 'normally closed' function is activated. When the red indicator is inserted in a white plastic piece, the 'normally open' setting is active.

On the 'normally closed' standard version, the valve can, in the event of a power failure, be opened by removing the drive. No tools should be used to fit the actuator to the valve: turning by hand is quite sufficient.

Fitting outdoors. If the devices are fitted outdoors, we recommend that additional measures be taken to protect them against the effects of the weather.

Standards and regulations

The actuator is tested to the requisite standards and complies with the relevant EU regulations.

Additional technical data

Rating of auxiliary switch when used with direct current: 4...30 V, 1...100 mA

VA125.1 , VA125.2

Complies with:-

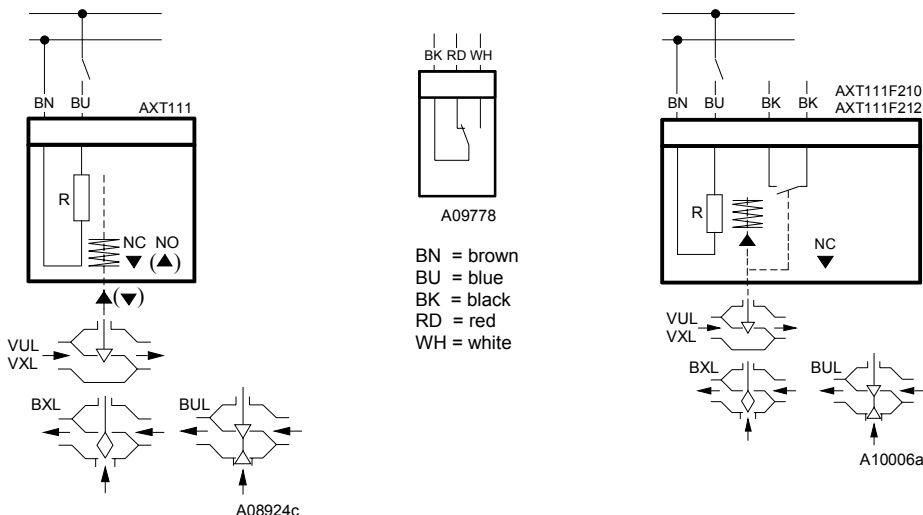
Directive 73/23/EEC	EN 60730-1/ EN 60730-2-14
EMC directive 89/336/EEC	EN 61000-6-1/ EN 61000-6-2
	EN 61000-6-3/ EN 61000-6-4

VA125.1M

Complies with:-

EMC directive 89/336/EEC	EN 61000-6-1/ EN 61000-6-2
	EN 61000-6-3/ EN 61000-6-4

Wiring diagram



Dimension drawing

