

AL0206-24, -230, AL0306-24, -230

SMALL 3-POSITION LINEAR VALVE ACTUATORS

PRODUCT DATA



APPLICATION

The Trend AL0206-24, -230 are specifically designed to provide floating control together with the V582, V583, and V584 series of small linear valves; the AL0306-24, -230 are for use with SV162X, SV163X series small linear valves.

The AL0206-24, -230 and AL0306-24, -230 actuators are used in fan coil units, induction units, small reheaters and recoolers and for zone control applications. They are employed in electronic temperature control systems using hot and/or cold water as the controlled medium.

The AL0206-24, -230 and AL0306-24, -230 actuators are suitable for Trend IQ controllers. These controllers track the precise valve position by counting the number of individual control pulses which move the valve from one position to another. For this reason, the actuators do not need endswitches or a feedback potentiometer. The absence of these mechanical components ensures longtime reliability.

The AL0206-24, -230 and AL0306-24, -230 actuators are also compatible with any controller providing intelligent position control and having a built-in shut-off function.

These actuators are well suited for applications where space is limited and minimum power consumption is required. The actuators are both attractive and robust in design.

FEATURES

- **Small size allows installation where space is limited**
- **Low power consumption**
- **Reliable longtime operation because mechanical feedback potentiometers and mechanical endswitches are not required**
- **Magnetic coupling for stem force limitation and self-adjustment of the close-off-point**
- **Reversible synchronous AC motor**
- **Suitable for three-position modulating control without proportional feedback**
- **Supplied with prewired connection cable**
- **Simple, standardized valve/actuator coupling
No tools required for mounting**
- **Visual valve position indicator furnished with actuators**
- **Manual operation provided by the valve adjustment cap, extra knob, or with a hexagon key (-K versions only)**

SPECIFICATIONS

Motor

Input voltage:	24 Vac +10 % ... -30 %; 50/60 Hz 230 Vac +10 % ... -30 %; 50/60 Hz
Power consumption:	0.7 VA (24 V models), 7.0 VA (230 V models)
Control mode:	floating
Stroke:	6.5 mm
Running time:	150 s at 50 Hz 125 s at 60 Hz
Stem force:	depending on version (see table)
Protection standard	IP 43 in accordance with EN 60529
Insulation class (acc. EN 60730):	II/III depending on type
Connection cables:	1.5 m (AL0206-24-10M has 10 m)
Ambient operating temperature limits:	0 ... 60 °C
Weight:	0.4 kg
Manual operation:	see table

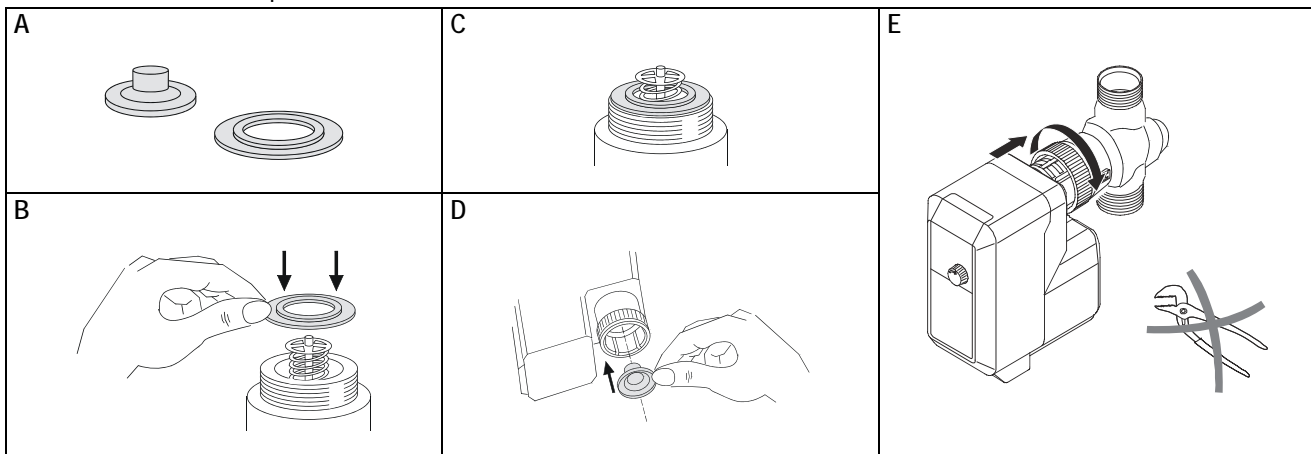
Note that for 230 V models the controller output stage must be suitable for voltage peaks of 800 V. Trend IQ and IQL controllers overcome this limitation by only controlling the 24 V models directly (via triacs), and by using isolated changeover relays to control the 230 V models

VERSIONS

	Power supply	Manual operation	Stem force	Housing type	Order code	Cable length
Standard	24 Vac	Provided by the valve adjustment cap	180 N	A	AL0206-24	1.5 m
			180 N	A	AL0206-24-10M	10 m
			300 N	A	AL0306-24	1.5 m
With manual operation	24 Vac	Integrated	180 N	B	AL0206-24-K	1.5 m
	24 Vac	"	300 N	B	AL0306-24-K	1.5 m
	230 Vac	"	180 N	B	AL0206-230-K	1.5 m
	230 Vac	"	300 N	B	AL0306-230-K	1.5 m

ADAPTOR KIT (ACCA/VB/ADK):

The ACCA/VB/ADK adaptor kit enables the AL0306 series actuators to drive VB valves



MOUNTING POSITION

The actuator may only be mounted beside or above the valve. Adjust the valve in the right position before mounting the actuator.

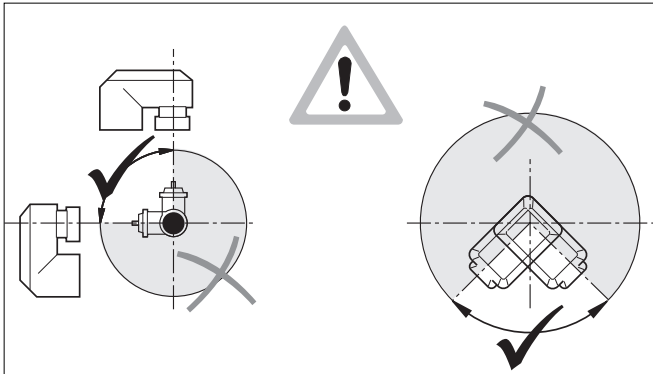


Fig. 1 Mounting positions

MOUNTING

Before the actuator is fixed to the valve, the adjustment cap must be removed (Fig. 2). Make sure that the actuator is in the retract position (factory supplied position) before fixing the actuator to the valve body.

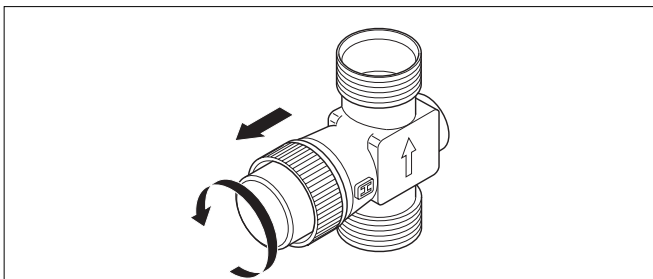


Fig. 2 Remove protection cap

The actuator must be mounted by hand. Don't use tools or additional force because actuator and valve may be damaged.

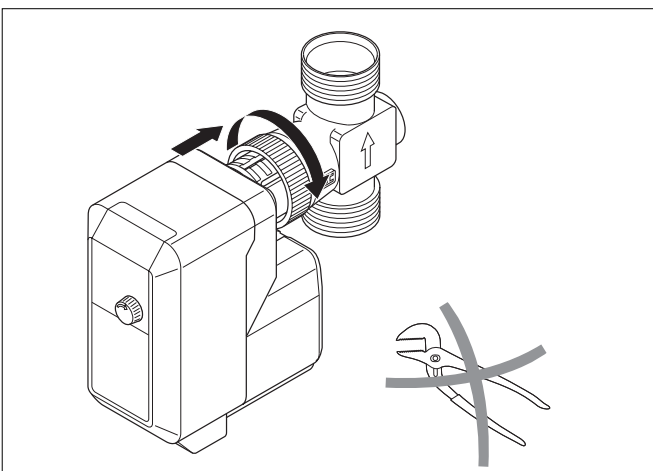


Fig. 3 Mounting the actuator

ELECTRIC WIRING OF MOTOR

A switch with a contact gap of at least 3 mm for each pole must be fitted with the fixed installation. The fuse rating is max. 2 A.

The electrical installation must comply with the wiring diagram shown in Fig. 4.

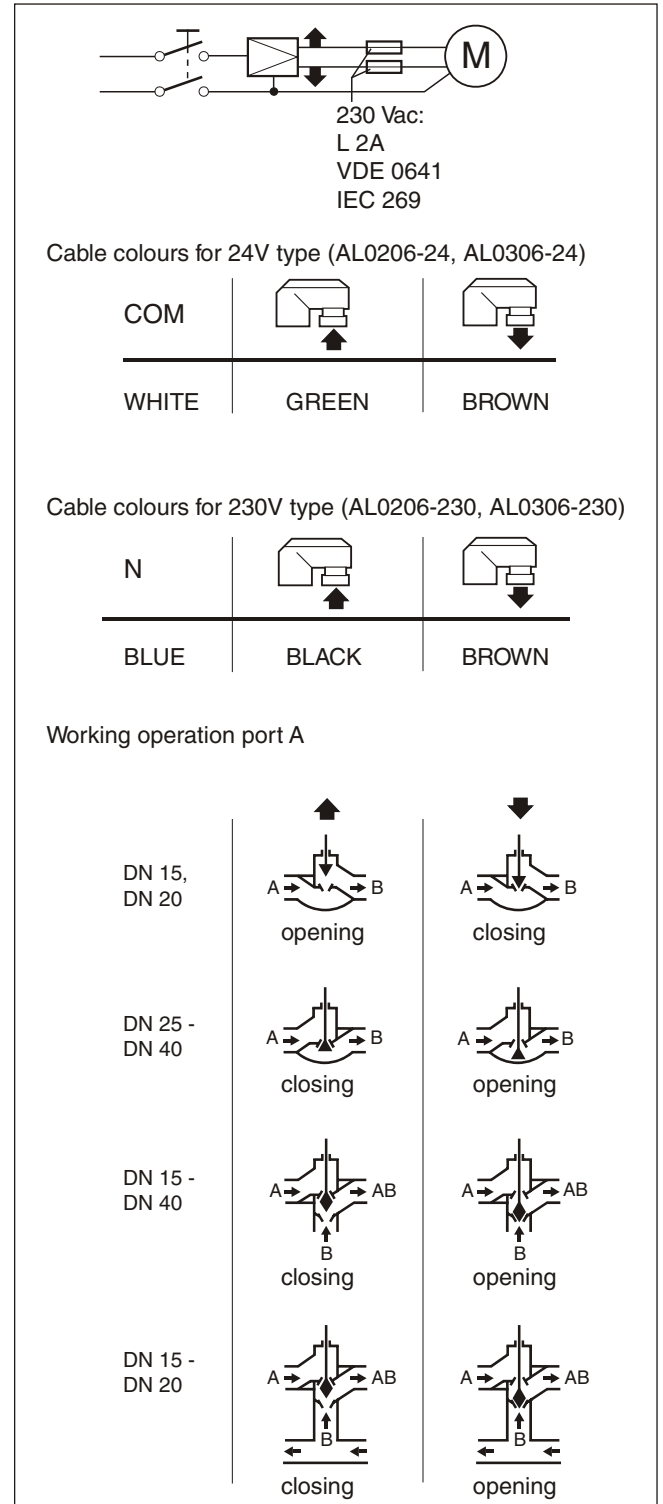


Fig. 4 Electric wiring of motor

MANUAL OPERATION

The actuators with integrated manual operation (see table "Versions") are featured with a hexagonal key hole for manual operation. For more comfort, an additional knob for the manual adjustment is packed separately. To prevent the valve from damage, the operation must only be done when there is no power applied to the motor.

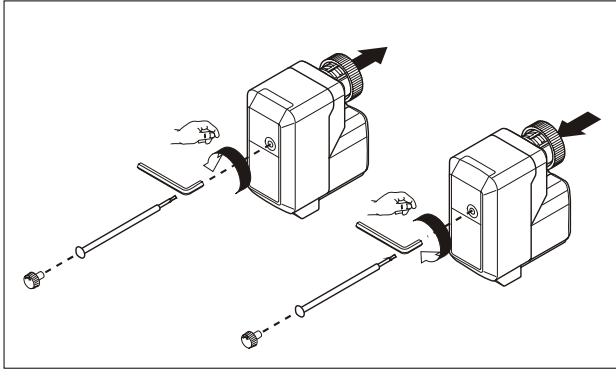


Fig. 5 Manual operation

COMMISSIONING ADVICE

A functional check of the valve actuator can be carried out by applying power to drive the actuator in either direction. The movement of the actuator stem (Fig. 6) indicates whether the valve is opening or closing.

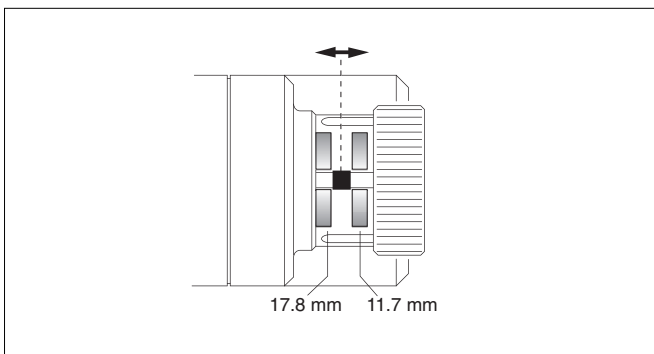


Fig. 6 Movement of the actuator stem

DIMENSIONS (MM)

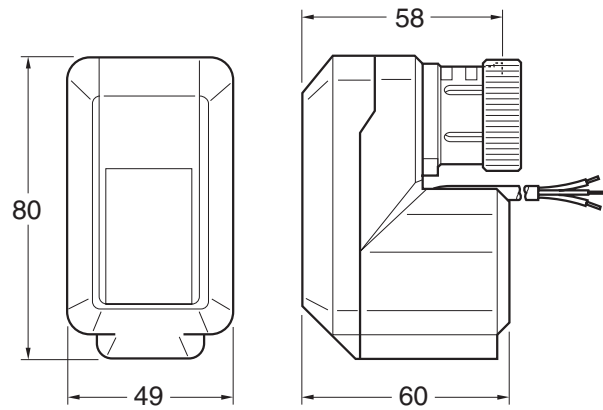


Fig. 12 Housing type A

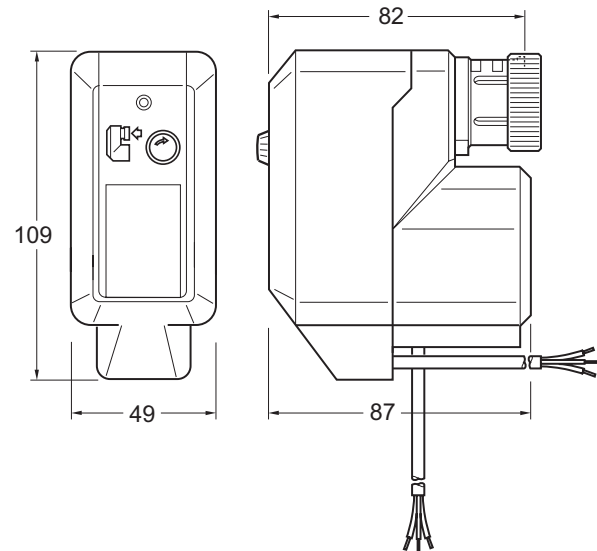
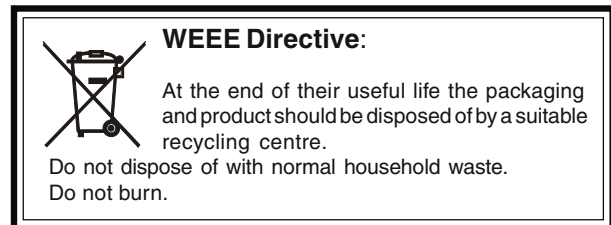


Fig. 13 Housing type B

DISPOSAL



Manufactured for and on behalf of the Environmental and Combustion Controls Division of Honeywell Technologies Sàrl, Ecublens, Route du Bois 37, Switzerland by its Authorized Representative.

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