



THE VALVE &
ACTUATOR COMPANY

LINEAR MOTORIZED VALVES

ACTUATOR SERIES ALFxx4

ESBE series ALF is specially designed for applications which require a high resolution and quick reaction.



ALF134



ALF264, ALF364, ALF464

OPERATION

ESBE series ALF is either controlled by a 3-point floating signal or by a modulating/proportional (ex 0..10 V, 2..10 V, 4-20mA) signal. Modulating/proportional control signal gives a fast actuator.

When modulating/proportional operation mode is used the working range of the actuator is automatically adjusted to the stroke of the valve. The electronic circuitry of the actuator then takes care of the adjustment of the valve end positions.

FUNCTION

- The actuator
When controlled with modulating/proportional control signal the full stroke has a resolution of 500 steps which enables a precise flow control together with ESBE linear valves.
- Manual operation
There is a manual operation handle on the actuator. When it is lowered, the motor stops. The actuator can then be operated manually if the handle is turned.
- Position feedback
The actuator is equipped with a 2-10 VDC position feedback signal.
- Diagnostic
The actuator is equipped with a self-diagnostic algorithm. The diagnostic information is communicated with a red/green blinking LED on the PCB under the cover.
- Sequence control
Actuators (modulating/proportional control signal) are able to be controlled in sequence.

LINKAGE KITS

The actuator is easy to mount and connect. It can be mounted directly onto ESBEs control valves, without any linkage kit.

Adaptor kits for other valves are available as follows:

Art. No. _____
26000200 _____ Siemens VVF 31, VXF 31, VVG 41, VXG 41, VVF 52, VVF 61, VXF 61, VVF 45, VVF 51, _____ VXF 11, VVG 11, VFG 34
26000800 _____ Satchwell VZ, VJE, VSF 15-50, VZE, MZF 65-150

OPTIONS

End position contacts ALF801 are available as accessory. These contacts could be used as end position indication or relay control of additional equipment (only applicable in modulating/proportional control mode).

Art. No. _____
26201100 _____ ALF801 End position contacts
26201200 _____ ALF802 Stem heater, 24 V

TECHNICAL DATA

Supply voltage: _____ 24 VAC ±20%, 50/60 Hz
_____ 24 VDC (22-30 VDC)
Power consumption: _____ see table
Stroke: _____ 5..30 / 5..60 mm
Force: _____ 600 - 2200 N
Duty cycle: _____ max. 50%/h
Ambient temperature: _____ -10°C - +50°C *
Ambient humidity: _____ max. 90% RH
Enclosure rating: _____ IP 54
Feedback signal, "U": _____ 2 - 10 VDC (0 - 100%)
Modulating / proportional control signal, "Y":
_____ 0 - 10 VDC, 2 - 10 VDC
_____ 0 - 5 VDC, 5 - 10 VDC
_____ 2 - 6 VDC, 6 - 10 VDC
_____ 4 - 20mA
Running time by modulating/proportional signal
600, 1000, 1500 N version:
Valve with stroke between 5 - 15 mm: _____ 15 s
Valve with stroke between 16 - 25 mm: _____ 20 s
Valve with stroke between 26 - 60 mm: _____ 30 s
2200 N version:
Valve with stroke between 5 - 60 mm: _____ 60 s
3-point floating operating voltage (source): _____ 24 VAC
3-point floating operating voltage (sink): _____ 24 V AC/DC
Running time by floating control signal: _____ 60 s
Weight: _____ 1.5 kg

Material _____
Cover: _____ Plastic
Housing: _____ Aluminum

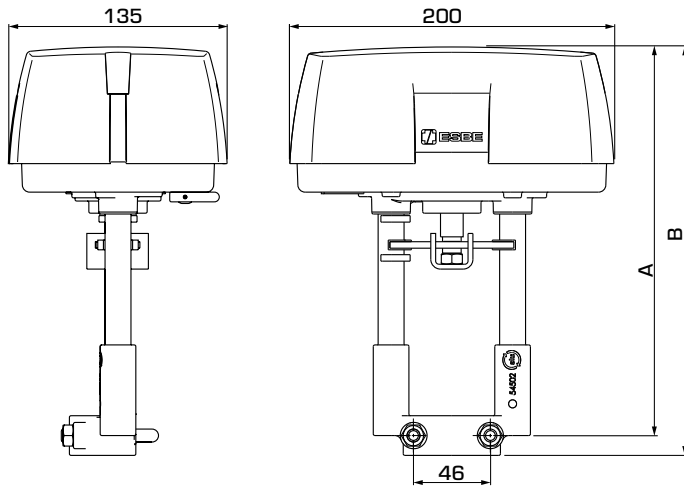
* If the actuator is used in applications with media temperatures below 0°C, the valve should be equipped with a stem heater ALF802.

CE LVD 2014/35/EU
EMC 2014/30/EU
RoHS 2011/65/EU



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SERIES ALFxx4 MODULATING/ PROPORTIONAL CONTROL MODE OR 3-POINT FLOATING CONTROL MODE

Art. No.	Reference	Supply voltage [VAC/VDC]	Force [N]	Stroke [mm]	Power consump. Running	Power consump. Holding	A	B	Note
22201100	ALF134	24	600	30	13VA/6W	11VA/5W	216	228	
22201200	ALF264		1000	60	18VA/8W	11VA/5W	240	252	
22201300	ALF364		1500		21VA/11W	13VA/7W			
22201400	ALF464		2220		25VA/10W	25VA/4W			

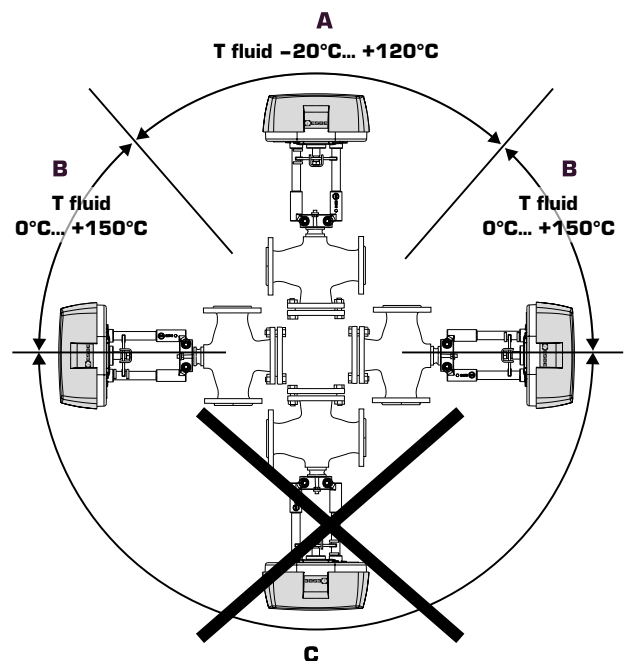
ASSEMBLY

Mounting positions:

A = Allowed mounting position with fluid temperature between -20°C to $+120^{\circ}\text{C}$.

B = Allowed mounting position with fluid temperature between 0°C to $+150^{\circ}\text{C}$.

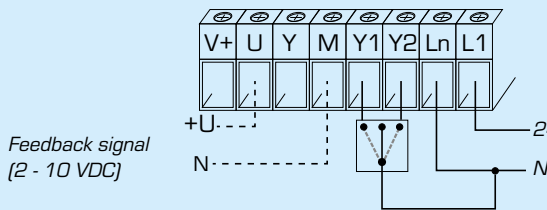
C = Not allowed mounting position.



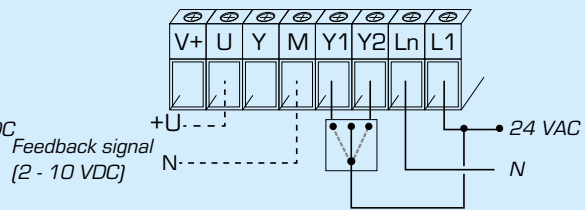
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ELECTRICAL WIRING

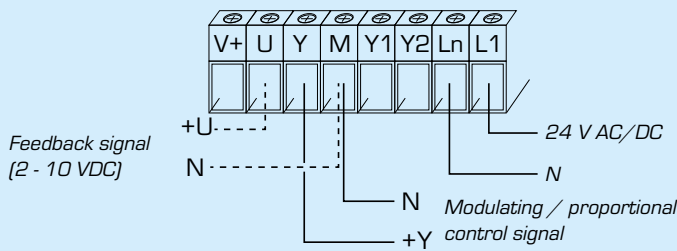
The motor should be preceded by a multi-pole contact breaker in the fixed wiring.



3-point floating control mode (sink)



3-point floating control mode (source)



Modulating / proportional control mode

SEQUENCE CONTROL

Modulating/proportional control mode with sequence control, example with 2 - 10 VDC control signal.

