

# ACTUATOR SERIES ALFxx1

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



## OPERATION

ESBE series ALF is either controlled by a 3-point floating signal or by a modulating/proportional (ex 0..10V, 2..10V, 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  
(only available in modulating/proportional control mode)  
The actuator is equipped with a 2-10 V DC 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: \_\_\_\_\_ 230 VAC  $\pm$ 10%, 50/60 Hz  
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

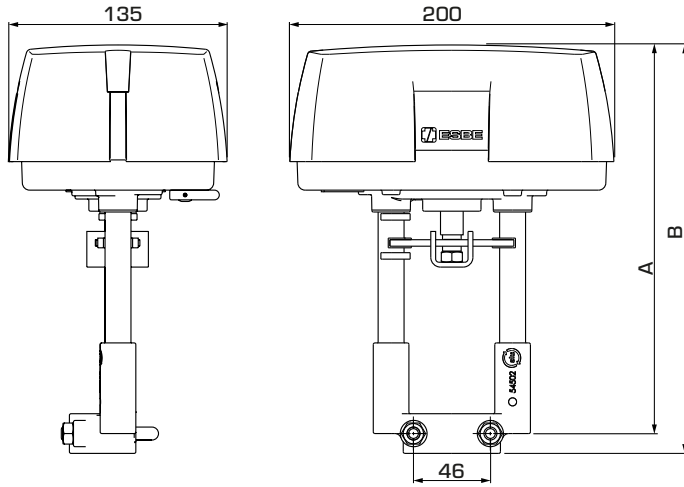
Running time by modulating/proportional signal  
600, 1000, 1500 N version:  
Valve with stroke between 5 - 15 mm: \_\_\_\_\_ 15 s  
Valve with stroke between 16 - 25 mm: \_\_\_\_\_ 20 s  
Valve with stroke between 26 - 60 mm: \_\_\_\_\_ 30 s  
2200 N version:  
Valve with stroke between 5 - 60 mm: \_\_\_\_\_ 60 s  
3-point floating operating voltage: \_\_\_\_\_ 230 VAC  
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 2006/95/EC  
EMC 2004/108/EC  
RoHS 2011/65/EU

# ACTUATOR SERIES ALFxx1



## SERIES ALFxx1 MODULATING/PROPORTIONAL OR 3-POINT CONTROL SIGNAL, POWER SUPPLY 230VAC

Art. No.	Reference	Supply voltage [V AC, 50Hz]	Force [N]	Stroke [mm]	Power consump. Running [VA]	Power consump. Holding [VA]	A	B	Note
22200100	ALF131	230	600	30	20	9	216	228	
22200200	ALF261		1000	60					
22200300	ALF361		1500						
22200400	ALF461		2220						

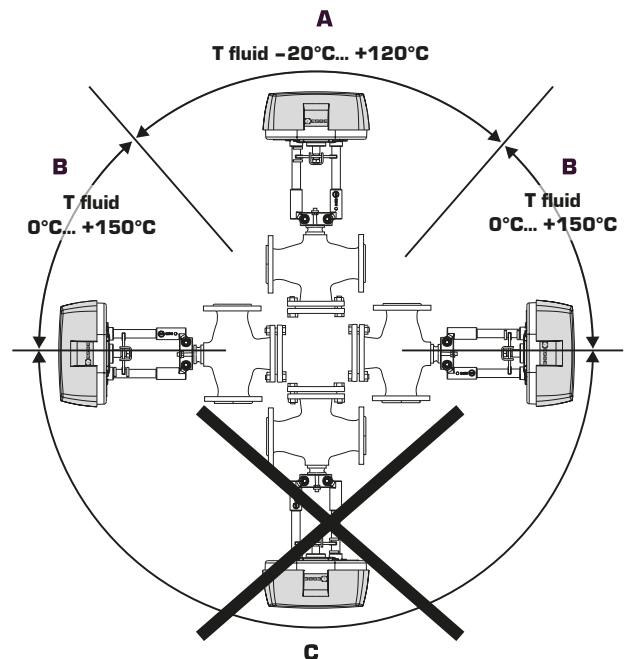
### ASSEMBLY

Mounting positions:

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

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

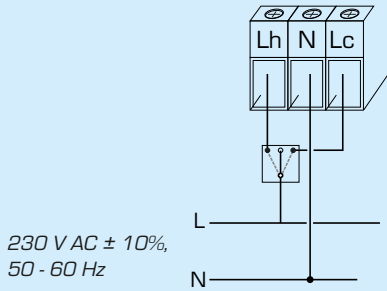
C = Not allowed mounting position.



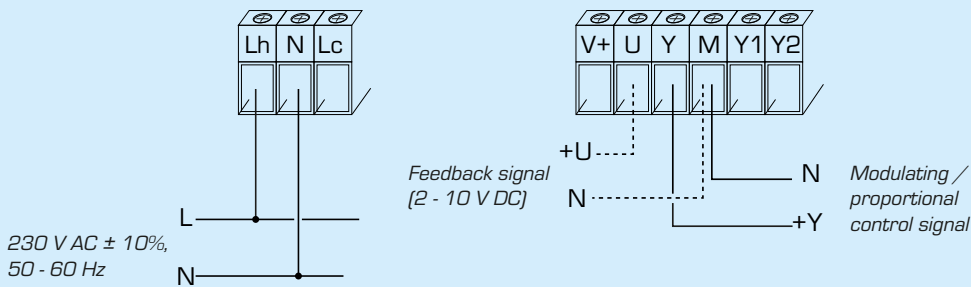
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### ELECTRICAL WIRING

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



3-point floating control mode



Modulating / proportional control mode

### SEQUENCE CONTROL

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

