

REVERSIBLE LINEAR ACTUATOR FOR VF VALVES

CLH Eng.



- **Power supply : 230 - 24 V~; IP 54 protection.**
- **Three-wire electric control.**
- **Maximum run: 40 mm. ; Run times : 8 s/mm - 3 s/mm.**
- **Direct fitting to valve without calibration.**
- **Manual operation.**

1. APPLICATION

CLH actuator is designed for operating, with linear movement, VF100/150 seat valves used in heating and air-handling installations with fluid temperatures 0 ... 320 °C.

2. OPERATION

CLH can be operated by an On-Off device (thermostat, teleswitch, manual switch) or by a modulating controller. The three-wire electric signal (common - opens - closes) powers a reversible synchronous electric motor with double windings, the rotary movement of which is converted into linear movement by an eccentric mechanism which allows a maximum run of 40 m.

The run is limited by two microswitches operated automatically by means of springs when the valve plug strikes one of its seats. This system ensures that the actuator is always able to exert its nominal force on the valve spindle thereby permitting installation without the need to calibrate the run.

On the upper part of the actuator is fitted a hexagonal socket-head screw and a press-button switch protected by a rubber cap ; this permits using an Allen key and pressing the switch to operate the valve manually.

3. MODELS

Model	Power supply V~ (VA)	Run mm.	Time s/mm.	Time s/40 mm.	Force Nm	Valves (up to DN) VF
CLH 328	230 (10.5)	40	8	320	5000	100...150
CLH 324	24 (10.5)	40	8	320	5000	100...150
CLH 128	230 (23)	40	3	120	5000	100...150
CLH 124	24 (23)	40	3	120	5000	100...150

4. ACCESSORIES

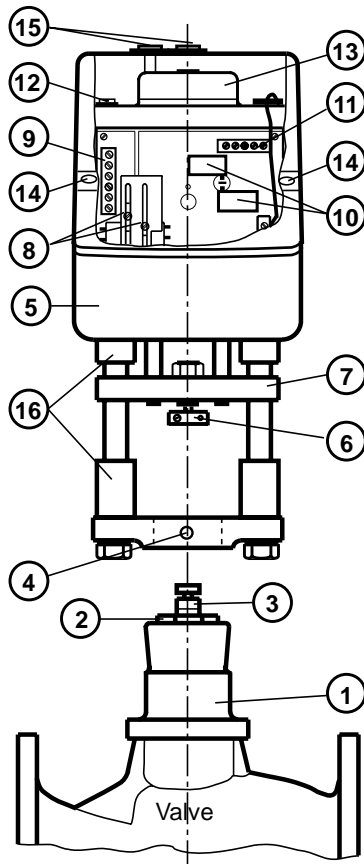
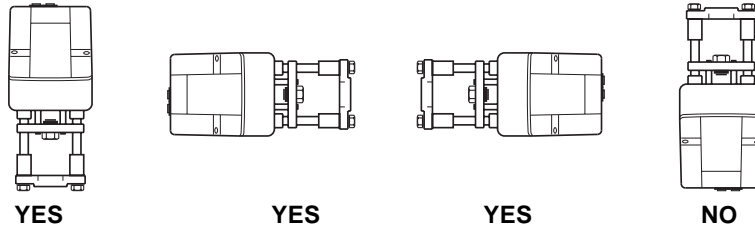
Code	Description
FCH 328	2 SPDT auxiliary microswitches for CLH 328
FCH 324	2 SPDT auxiliary microswitches for CLH 324
FCH 128	2 SPDT auxiliary microswitches for CLH 128
FCH 124	2 SPDT auxiliary microswitches for CLH 124

5. TECHNICAL DATA

Power supply:		Force :	
- CLH ..8	230 V~ ±10%	- CLH 32.	5,000 Nm
- CLH ..4	24 V~ ±10%	- CLH 12.	5,000 Nm
Frequency	50 ... 60 Hz	Capacity end-of-run contacts	6 (2) A
Consumption :		Valve fluid temperature	0 ... 320 °C
- CLH 32.	10.5 VA	Ambient temperature:	
- CLH 12.	23 VA	- operating	- 15 ... 50 °C
Maximum run	40 mm.	- storage & transport	- 40 ... 70 °C
Times for 40 mm. run :		Protection	IP 54
- CLH 32.	320 s	Weight	10 kg
- CLH 12.	120 s		

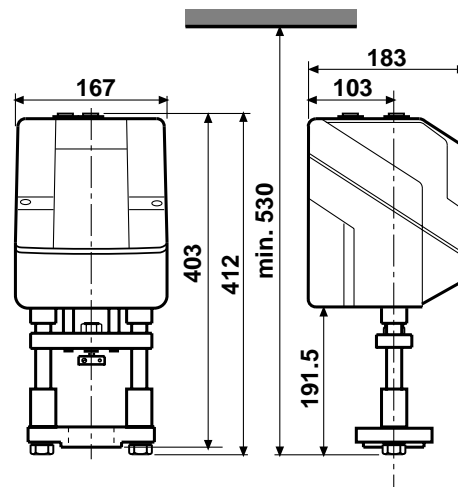
6. INSTALLATION

- Loosen the screws of the coupling block on the valve spindle (6.6).
- Loosen the actuator/valve locking screw (6.4) and withdraw the entire length of the valve spindle (6.3).
- Fix the actuator to the valve so that the spindle fits into the coupling block and tighten up the locking screws (6.6).
- Press the actuator until it rests on the top of the valve.
- Tighten the actuator/valve locking screw and check the correct installation by making a complete run of the valve by hand (6.15).
- Make the electrical connections according to the wiring diagram (8) and in observance of the safety regulations in force.

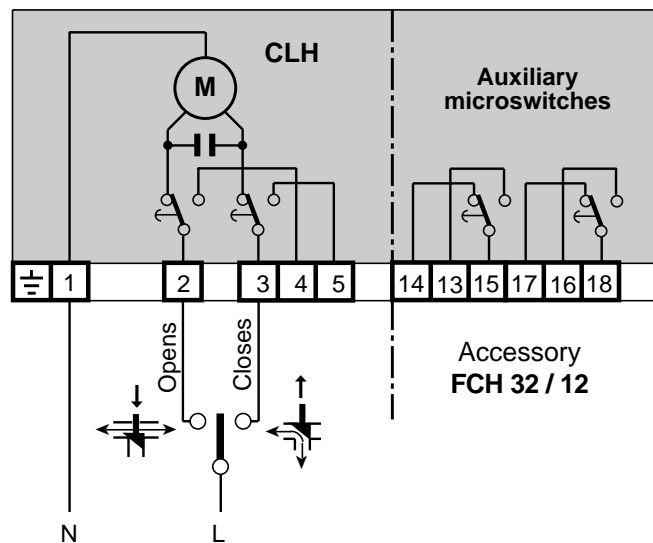


- 1 – valve shank
- 2 – securing nut
- 3 – valve spindle
- 4 – actuator/valve locking screws
- 5 – protective cover
- 6 – coupling block
- 7 – run indicator
- 8 – auxiliary microswitches cams
- 9 – auxiliary switches terminal block
- 10 – end-of-run microswitches
- 11 – power supply terminal block
- 12 – earth terminal
- 13 – synchronous electric motor
- 14 – cover securing screws
- 15 – manual operation
- 16 – end-of-run indicators

7. OVERALL DIMENSIONS



8. WIRING DIAGRAM



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