

REVERSIBLE LINEAR ACTUATOR FOR VM2 - VB2 VALVES

CLR Eng.



- **Power supply: 230 - 24 V~; IP 54 protection**
- **Three-wire electric control**
- **Maximum run: 10 mm; Run times: 15 s/mm - 3 s/mm**
- **Direct installation on valve without calibration**
- **Manual operation**



1. APPLICATION

CLR actuators are designed for operating, with linear movement, balanced pressure seat valves of type VM2 - VB2 up to DN 50 used for control in plants with hot or superheated water up to a maximum of 150 °C.

2. OPERATION

CLR actuators can be controlled by an On-Off device (thermostat, teleswitch, manual switch) or by a modulating controller. The three-wire electric signal (common - opens - closes) powers a small synchronous reversible electric motor with double coils, the rotary movement of which is converted into linear movement by an eccentric mechanism which permits a maximum run of 10 mm.

The run is limited by two microswitches operated automatically, by means of springs, when the valve plug strikes against 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 calibrating the run.

On the front of the actuator is a knob and a press-button switch; depressing the latter releases the transmission mechanism so that the valve can be operated manually by means of the knob.

3. MODELS

Code	Power supply V~ (VA)	Run mm.	Time s/mm.	Time s/10 mm.	Force Nm	Valves (up to DN) VM2 - VB2
CLR 158	230 (2.15)	10	15	150	450	50
CLR 154	24 (2.15)	10	15	150	450	50
CLR 038	230 (7)	10	3	30	450	50
CLR 034	24 (7)	10	3	30	450	50

4. ACCESSORIES

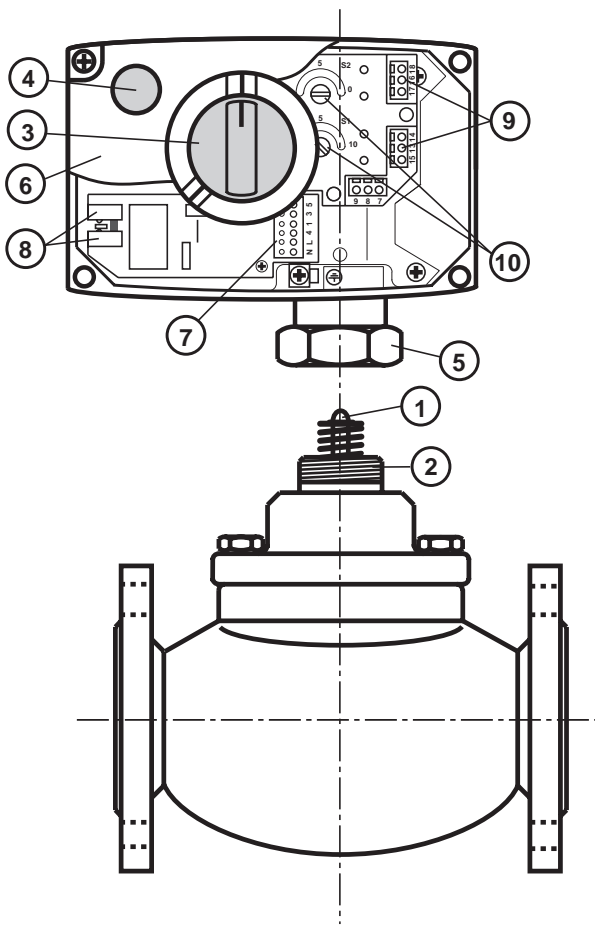
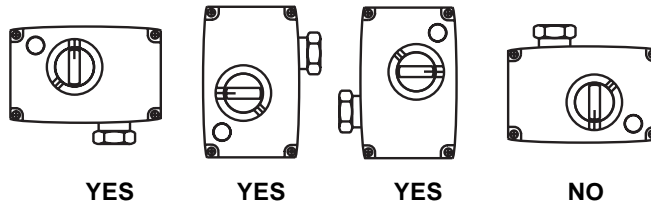
Code	Description
FCR 002	Two auxiliary SPDT microswitches

5. TECHNICAL DATA

Power supply :		Force :	
- CLR ..8	230 V~ ±10%	- CLR 15.	450 Nm
- CLR ..4	24 V~ ±10%	- CLR 03.	450 Nm
Frequency	50 ... 60 Hz	End-of-run contacts rating	6 (2) A
Consumption :		Valve fluid temperature	5 ... 150 °C
- CLR 15.	2.15 VA	Ambient temperature :	
- CLR 03.	7 VA	- operation	0 ... 55 °C
Maximum run	10 mm.	- storage & transport	- 40 ... 70 °C
Times for 10 mm run :		Protection	IP 54
- CLR 15.	150 sec.	Weight	1.4 kg
- CLR 03.	30 sec.		

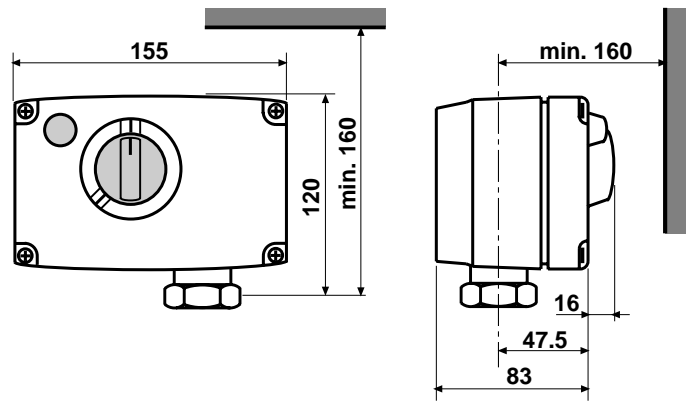
6. INSTALLATION

- Couple the actuator to the valve.
- Screw on and tighten up the valve locking nut (6.5).
- Press the manual release button (6.4) and using the knob (6.3) make a complete manual run of the actuator in order to check correct installation.
- Carry out the electric wiring in strict accordance with the wiring diagram and with the safety regulations in force.

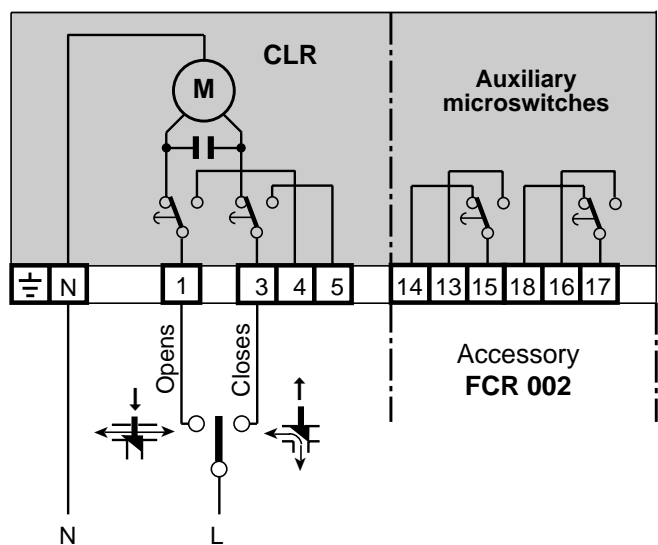


- 1 - Valve spindle
- 2 - Actuator locking screw thread
- 3 - Manual operating knob
- 4 - Manual release button
- 5 - Valve locking nut
- 6 - Protective cover
- 7 - Terminal block
- 8 - End-of-run microswitches
- 9 - Auxiliary connections terminal block
- 10 - Adjustment action microswitches

7. OVERALL DIMENSIONS



8. WIRING DIAGRAM



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