M 254
06.06.05 MC

REVERSIBLLE LINEAR ACTUATOR FOR VRS 3 VALVES

CLS ... Eng.

- **Power supply :**
  – 230 V~ (CLS 078) - 24 V~ (CLS 074)
- **Electric control:**
  –Three-wire (common - open - closed)
- **Maximum run:**
  – 5.5 mm (77 s)
- **Installation:**
  – Direct mounting on valve without calibration

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1. APPLICATION

CLS … actuator is designed to operate, with linear movement, seat type VRS3 valves used in heating and air-conditioning plants with fluid temperatures from 1…120°C.

2. OPERATION

CLS…actuators can be controlled by an On-Off or modulating device (e.g. thermostat, switch, modulating controller) fitted with an SPDT switch. The three-wire electric signal (Common, Opens, Closes) powers a small reversible, synchronous, electric motor with double windings, the rotary movement of which is converted into linear movement by an eccentric mechanism which permits a maximum run of 5.5 mm.
The run is limited by two miniature switches operated automatically when the valve plug comes into contact with one of the seats (closure or opening).
This system ensures that the actuator is always able to exert its nominal force on the valve spindle thereby ensuring total closure and opening.
With this system of installation there is no need to calibrate the run.

3. MODELS

Code	Power supply V~ (VA)	Run max. mm	Time s/1mm	Time s/ 5.5 mm	Force min. Nm	Valves (up to DN max.) VRS 3..
CLS 078	230 (2)	5.5	14	77	200	40 (1"1/2)
CLS 074	24 (2)	5.5	14	77	200	40 (1"1/2)

4. TECHNICAL DATA

Power supply :	
– CLS ..8	230 V~ ±10%
– CLS ..4	24 V~ ±10%
Frequency	50…60 Hz
Consumption	2 VA
Maximum run	5.5 mm
Time 5.5 mm run	77 s
Time for 1 mm run	14 s
Force min.	200 Nm
Valve fluid temperaturea	1…120 °C
Ambient temperature :	
– operating	0…55 °C
– storage & transport	– 40…70 °C
Protection	IP 42

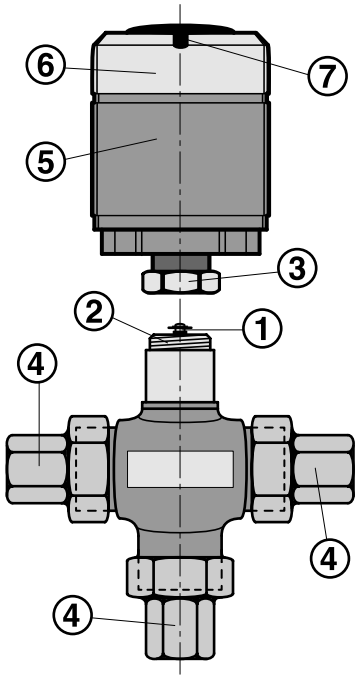
5. INSTALLATION

Note where the valve is installed: if near the ceiling, check that between the valve spindle, the ceiling itself and the overhead air ducts and pipework, there is sufficient space to install the actuator (see dimensions in **section 7**).

- Position the actuator so that the valve securing nut at its base fits perfectly on the threading at the top of the valve.**(VRG...)**.
- Screw up the valve securing nut and tighten it using a 32 mm spanner. In any event, do not use an inappropriate tool.
- Carry out the electric wiring in strict accordance with the diagram and with safety regulations in force, using cables of the appropriate diameter (**NOT telephone or similar cables**).

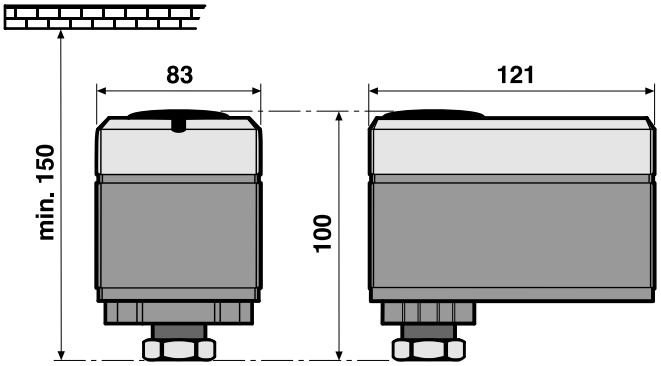
WARNING:
Do NOT test the actuator electrically without a load because without the resistance of the valve or other device it could become damaged.

6. DESCRIPTION

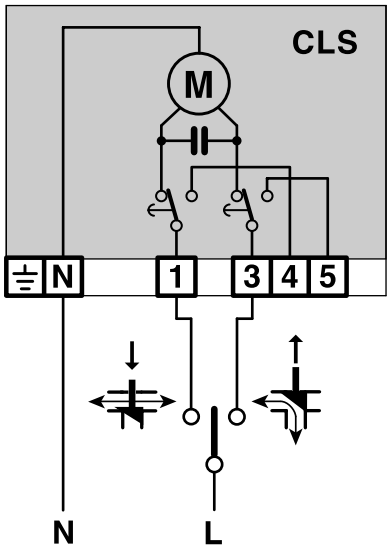


1 – Valve spindle
2 – Threading for attachment actuator
3 – Valve securing nut (32 mm spanner)
4 – Female threaded unions
5 – Enclosure mechanical parts
6 – Protective cover for electrical components
7 – Position indicator

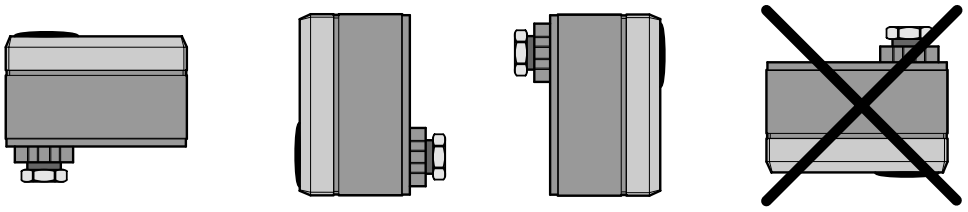
7. OVERALL DIMENSIONS



8. WIRING DIAGRAM



9. INSTALLATION



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