

RM/XRM

Modulating And Two-Position Light Duty Actuators



Product Description

These actuators operate Satchwell MB valves. The XRM is a modulating actuator for use with Climatronic integral controllers and the MMC controller. The RM is a Mains Voltage Reversing Actuator for two-position control when used with a changeover type thermostat or modulating control when used with an appropriate controller. On power failure the actuator can be operated manually.

Specification

Application	Actuator	Transfer Switch Output Rating	Associated Valves
Integral (controlled by CXT, CXR, CSC or MMC, URC, IAC)	XRM3201	0.02A 24 Vac	Three-port valves type MB see DS 4.501
Two-Position (controlled by changeover thermostat or switch). Also suitable for mains output CSC, CMC, CSMC Construction	RM3601	3A 230 Vac	

Stroke:	90° angular in 4 minutes. Reversing.
Torque:	2Nm
Power Supply:	
XRM	24 V, 50/60Hz, consumption 0.5 VA
RM	230 V, 50/60Hz, Consumption 5 VA

Ambient Temperature Limits	
Operating	-20...35°C with water at 120°C. For 10°C lower water temperature ambient can be increased by 4°C
Storage	-40 ...70 °C
Mounting Attitude	The actuator must be mounted with the drive shaft horizontal.
Construction Materials	
Case	Polycarbonate. Two 21mm conduit entries.
Terminals	Accept 3 x 1.5mm ² or 2 x 2.5mm ² cable
Motor	Split phase capacitor motor
Gear Train	Factory prelubricated for life
Actuator Position	
Indicator	Marked 0...10 visible from both sides through protective cover on top of actuator
Transfer Switches	Two single-pole. Not electrically separate.
Protection Class	IP 41

Manual Operation

1. Push operating knob towards actuator - this disengages the drive.
2. Rotating knob anti-clockwise will move actuator towards position '0'.
3. Rotating knob clockwise will move actuator towards position '10'.

Connection Diagrams

Thermostat Or Other Switching Device

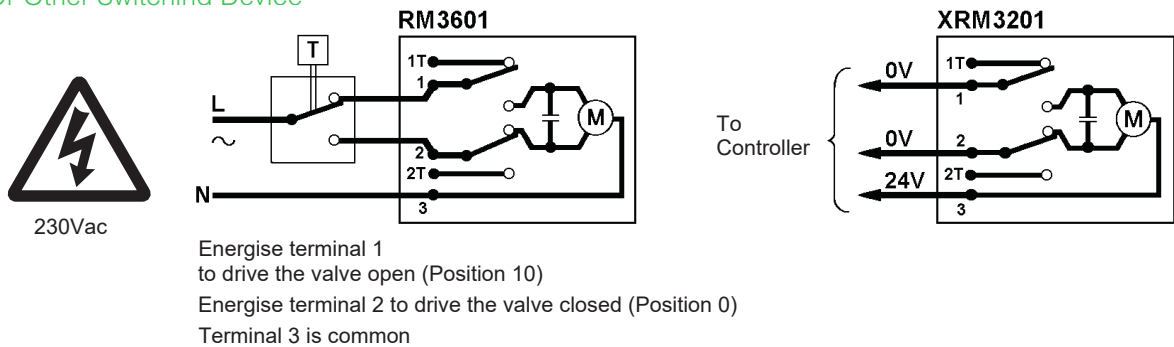


Figure 1

Note: Do not connect actuators in parallel.

Energising terminal 1 drives the actuator output shaft towards position '10'. When position '10' is reached the supply on terminal 1 is transferred to terminal 1T and the actuator stops.

Energising terminal 2 drives the actuator shaft towards position '0', when this position is reached the supply to terminal 2 is transferred to terminal 2T. Between positions '0' and '10' no contact is made to either terminal 1T or 2T. This arrangement enables the supply from the controller to be transferred to a second actuator at the end of each stroke.

Installation

Notice

- Steam or hot water hazard. Before removing actuator from valve or opening valve, ensure that the valve control medium is isolated and relieve the pressure. Work should only be carried out by a competent engineer.
 - DO NOT rotate actuator shaft mechanically.
1. Ensure location is reasonably clean and dry with adequate access for fitting and wiring. Ambient temperature limits -20 to 50°C.
 2. Fit actuator as follows:
 - a. Rotary shoe valves type MB (Fig.2):
 - i. Undo fixing screw, remove terminal cover and pull up locking plate.
 - ii. Check that tongue on actuator is in line with groove in valve spindle, if necessary rotate valve spindle to line up.
 - iii. Locate actuator keyhole fixing slots onto the fixing studs on valve and push actuator towards valve to engage fully. Depress locking plate.
 - iv. Connect wires to terminals in accordance with appropriate scheme diagram. Allow sufficient flexible conduit to permit easy removal of the actuator.
 - v. Remove terminal cover and tighten fixing screw.

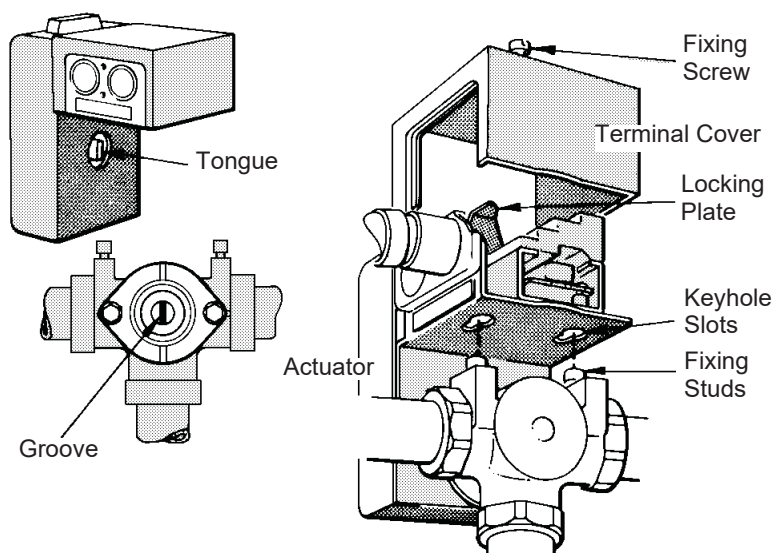


Figure 2