

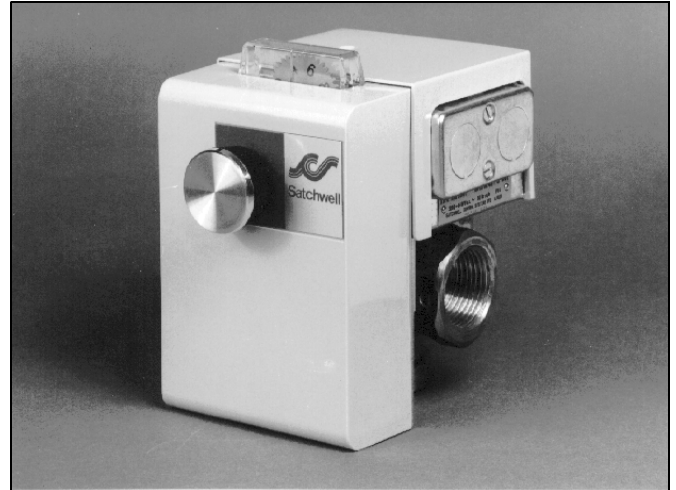
MODULATING AND TWO-POSITION LIGHT DUTY ACTUATORS

Specification No. RM/XRM 471-X-XXX*

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.

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'.



* For the full specification number replace the 4Xs with the appropriate figures from the Actuator type column in the table on Page 2.



Data Sheets
Valve
DS 4.501 - MB

Multi-Lingual Instructions
MLI 3.201 - Mounting Details



SPECIFICATION

APPLICATION	ACTUATOR	TRANSFER SWITCH OUTPUT RATING	ASSOCIATED VALVES
INTEGRAL (controlled by CXT, CXR, CSC or MMC, URC, IAC)	XRM3201	0.02A 24Vac	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	RM3601	3A 230Vac	

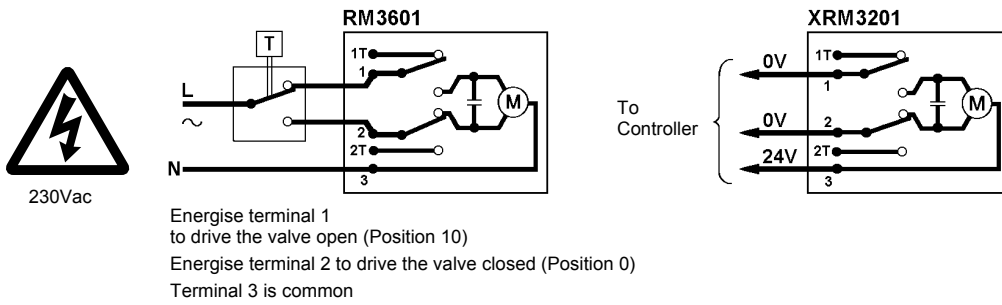
Stroke:	90° angular in 4 minutes. Reversing.
Torque:	2Nm
Power Supply:	XRM: 24V, 50/60Hz, consumption 0.5VA RM: 230V, 50/60Hz, Consumption 5VA
Ambient Temperature Limits:	Operating -20°C to +35°C with water at 120°C. For 10°C lower water temperature ambient can be increased by 4°C: Storage -40 to +70°C
Mounting Attitude:	The actuator must be mounted with the drive shaft horizontal.

CONSTRUCTION

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

CONNECTION DIAGRAMS

THERMOSTAT OR OTHER SWITCHING DEVICE



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

WARNING -

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.

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:

Rotary shoe valves type MB (see Fig.1).

- a. Undo fixing screw, remove terminal cover and pull up locking plate.
- b. Check that tongue on actuator is in line with groove in valve spindle, if necessary rotate valve spindle to line up.

DO NOT rotate actuator shaft mechanically.

- c. Locate actuator keyhole fixing slots onto the fixing studs on valve and push actuator towards valve to engage fully. Depress locking plate.
- d. Connect wires to terminals in accordance with appropriate scheme diagram. Allow sufficient flexible conduit to permit easy removal of the actuator.
- e. Remove terminal cover and tighten fixing screw.

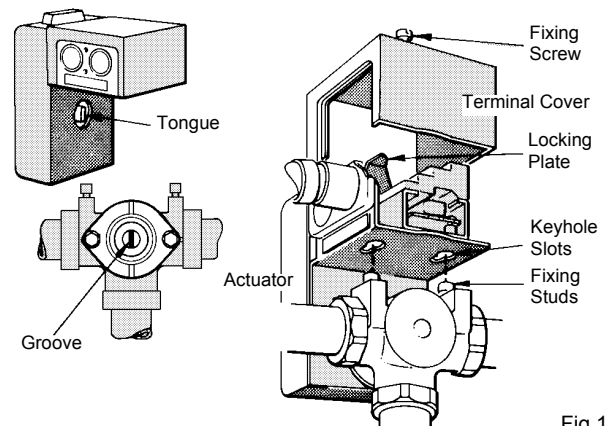


Fig.1

WARNING -

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.

THE RM3601 IS A MAINS OPERATED DEVICE. LOCAL WIRING REGULATIONS AND USUAL SAFETY PRECAUTIONS MUST BE OBSERVED. ENSURE GOOD EARTHING.

Cautions

- Do not apply any voltages until a qualified technician has checked the system and the commissioning procedures have been completed.
- If any equipment covers have to be removed during the installation of this equipment, ensure that they are refitted after installation to comply with UL and CE safety requirements.
- Observe wiring precautions given on the data sheet for the controller that the actuator will be connected to.
- Switch off power supply before opening case.
- Observe maximum ambient temperature.
- Interference with those parts under sealed covers renders the guarantee void.
- Design and performance of TAC Satchwell equipment are subject to improvement and therefore liable to alteration without notice.
- Information is given for guidance only and TAC Satchwell does not accept responsibility for the selection or installation of its products unless information has been given by the Company, in writing, relating to a specific application.
- A periodic system and tuning check of the control system is recommended. Please contact your local sales office for details.

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