

ACTUATORS

These come in various forms, 2 or 3 port, spring return, or motor on / motor off.

Spring return actuators (SD / SZ) work on the principle of the motor being energised the whole time the actuator is holding the valve open. As the actuator rotates, a spring inside is wound up and the motor then stalls out holding the valve open. When power is removed from the actuator, the energy in the coiled spring is released, closing the valve and shutting down the actuator.

This applies to both 2 port and 3 port spring return actuators.

Ecosmart actuators (SDM / SZM) motor to the required position and then switch the motor off and remain off until signalled to move to the next position. This is energy saving as the motor is switched off rather than running in a stalled condition and producing unwanted heat.

3 Port actuators (SD 2701, SD 2751 or SDM1901 mid position)

. Only one three port valve required. Mid position actuators allows the user to direct water from the boiler to Hot water only, Central heating only or both circuits together.

3 Port actuators (SD 2601 Diverter) The diverter type only allows the user to direct water from the boiler to Hot water only or Central heating only, but not both circuits together.

SZ / SZM / SM actuators are all interchangeable, they will all fit the same valve, but wiring changes are required if changing from SZ / SZM to SM types and vice versa.

SD mid position and **SDM** actuators are interchangeable but the valves need to be changed also to suit whichever actuator is being used. Wiring details are the same for both units.

2 Port actuators. (**SZ ,SZM** or **SM**) These are normally used in pairs. One for the Hot water circuit and one for the Central heating circuit.

SZ 2301 2 port motor open spring return actuator. Volt free switching. This is our standard spring return actuator used in fully pumped central heating systems.

Other available models for other applications are :-

Actuator	Valve	Switch
SZ 2201	normally closed	none
SZ 2251	normally open	none
SZ 2301	normally closed	nor. Open
SZ 2301f	normally closed	nor. Open
SZ 2302	normally closed	s.p.d.t.
SZ 2351	normally open	nor. Open
SZ 2355	normally open	s.p.d.t.

SM actuators

SM 5201 2 port motor / on motor off actuator. Does not have an Orange switched live wire. *Supersedes SM 3201 and SM 4201*

SM 5203 2 port motor on / motor off actuator. Has the Orange switched live wire. 240v output. *Supersedes SM 3203 and SM 4203*

SM 5205 2 port motor on motor / off actuator. Has the Orange switched live wire, plus a Pink Auxiliary wire. *Supersedes SM 3205 and SM 4205*

Ecosmart actuators

SZM 1801 2 port motor on motor off actuator designed to fit to an existing spring return circuit, has the same wire colours

Please note, a permanent live is required on the Grey wire.

Not volt free switching.

SDM 1901 3 port Ecosmart actuator. Can be installed in an existing spring return circuit.

NB only the 3 port SD/SDM actuators have the 'slipseal' technology.

3 port actuators

SD 2601 3 port spring return diverter actuator

SD 2701 3 port spring return mid position actuator. 240V output..

SD 2751 Same as SD 2701 but with fitted plug.

SDM 1901 3 port Ecosmart actuator. Can be installed in an existing spring return circuit

NB only the 3 port SD/SDM actuators have the 'slipseal' technology.