



MULTIFUNCTION ACTUATOR WITH 3 AND 2 POINT DOUBLE REGULATION

DOUBLE CONTROL. MAXIMUM FLEXIBILITY.



FEATURES

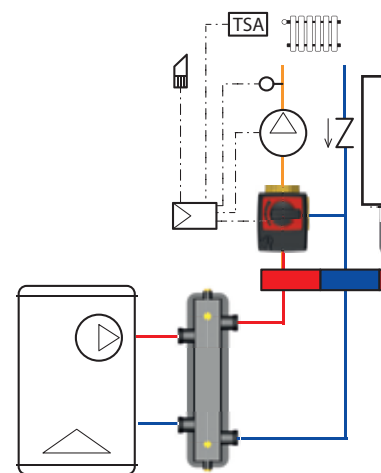
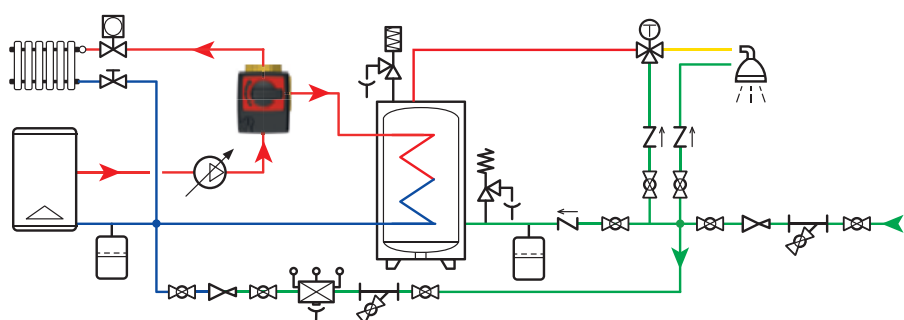
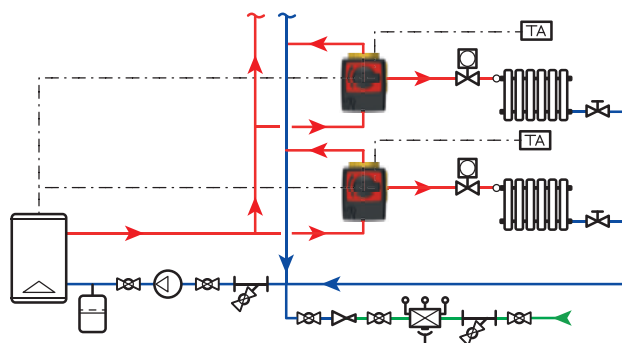
- ▶ ALL IN ONE 2P + 3P
- ▶ RELAY TECHNOLOGY
- ▶ QR CODE FOR INFO & TRACEABILITY
- ▶ FOR MIXING & DIVERTING
- ▶ WIDE COMPATIBILITY

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DESCRIPTION

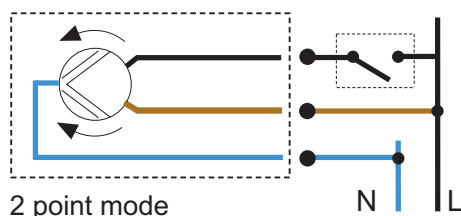
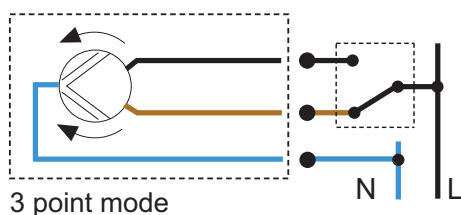
The M13 multifunction actuator incorporates 3 and 2 point operating modes in one product. To select the operating mode, it's only necessary to connect the cables according to its respective wiring diagram, without any selector. It can be used in 3 point mode to motorize all the threaded 3- and 4-way mixing valves and all the motorizable regulating groups DN 20, DN 25, DN 32, DN 40 and DN 50. In 2 point mode it can be combined to all the 3-way threaded mixing valves to be used in on-off mode as diverting or zone valves. The actuator is equipped with internal relays that completely isolate it from electric noise or current peaks coming from the outside. The rotation angle is 90°/120 s or 90°/60 s. At the end of the rotation, the electric supply is cut off by the end microswitch. If necessary, by rotating the clutch lever, the actuator can be set to the manual mode: the operation unlocks the gear system and makes it possible to manually rotate the actuator and the connected valve. It can be connected, depending on the operating mode, to on-off devices (i.e. thermostats) or 3 point weather compensated controllers to regulate the temperature.



HIGHLIGHTS

ALL IN ONE: 3 & 2 POINTS, WITHOUT SELECTORS

To select the 3 or 2 point operating mode, it's only necessary to connect the actuator according to one of the two modes visible in the wiring diagram. There are no selectors: the actuator electronics automatically selects the operating mode depending on the wiring.



QR CODE

On the actuator side, the QR code provides technical information and traceability data about the product.

WIDE COMPATIBILITY

The M13 actuator can be used on all the motorizable DN 20-25-32-40-50 groups and all the threaded 3- and 4-way mixing valves.

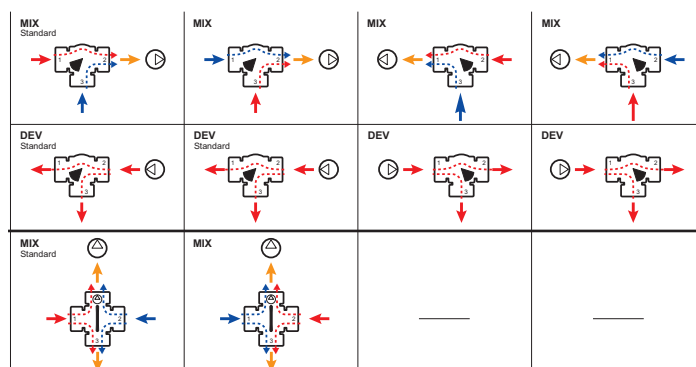
RELAY TECHNOLOGY

The electric contacts are protected by relay. In this way, the actuator is isolated from possible electric noise or current peaks which could arrive from outside, for example from the electric network, the controller or other devices installed in the system.

USE AS MIXING OR DIVERTING VALVE

The 3-way mixing valves coupled to the M13 actuator can be used as:

- mixing valves (M13 in 3 point mode): 2 inlets, 1 outlet. We obtain the temperature regulation of the circuit downstream of the valve;
- diverting valves used in adjustment mode (M13 in 3 point mode): 1 inlet, 2 outlets. By inverting the flow direction inside the valve (the unique fluid inlet is the port used as mixed water outlet in the mixing valve working mode) the regulation of the downstream circuit is obtained therefore by a flow rate variation;
- diverting valves (M13 in 2 point mode): 2 inlets, 1 outlet (for example to connect two generators to the same system) or 1 inlet, 2 outlets (for example as priority valve to connect the boiler to the heating system or to the domestic water storage).



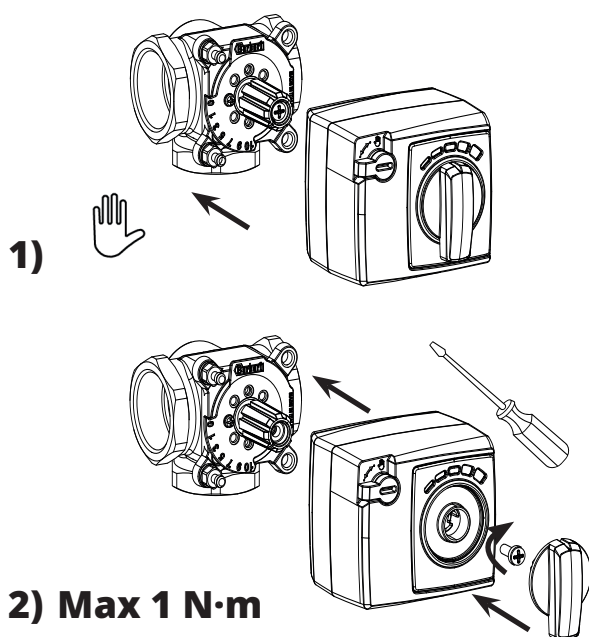
HIGHLIGHTS

QUICK COUPLING OR SCREW INSTALLATION

The installation of the actuator on the valve can be performed in two ways:

1) Quick coupling. The package includes two anti-rotation pins to be screwed onto the mixing valve if it is not already equipped with integrated pins. Thanks to the specific coupling system located on the base, the actuator can be attached to the valve by pushing it against the anti-rotation pins until a "click" is heard. To remove it, simply detach it from the valve by pulling it straight off.

2) Screw installation (traditional method). Alternatively, the actuator can be locked using the screw provided in the package: instead of screwing the adaptor to the valve stem, the screw can be inserted into the hole under the knob to fasten both the actuator and the adaptor together onto the valve stem.



MANUAL MODE

If necessary, it's possible to pass from the automatic to the manual operating mode and viceversa by rotating the clutch lever.



CATALOGUE

M13

Actuator for mixing valves with double regulation 3 and 2 points and integrated relay. Rotation angle 90°. Complete with blocking screw, valve adaptor, anti-rotation pins, 1,5 m integrated cable.

Torque: **6 N·m**

Protection class: **IP 44**

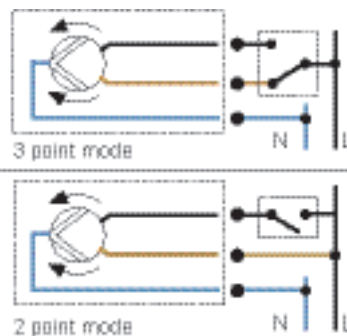
Frequency: **50 Hz**

Power consumption: **4 VA**

Aux. microswitch contact rating: **3 (1) A**



M13: wiring diagram for 3 point and 2 point mode



To select the 3 or 2 point operating mode, it's only necessary to connect the cables according to its respective wiring diagram.

Code	V	Running time [s]	Nr of poles	Cable [m]		
M13 006 1RAB	230	120	3	1,5	1	16
M13 006 1SAB	230	120	6	1,5	1	16
M13 006 1RBB	230	60	3	1,5	1	16
M13 006 1SBB	230	60	6	1,5	1	16
M13 006 2RAB	24	120	3	1,5	1	16
M13 006 2SAB	24	120	6	1,5	1	16
M13 006 2RBB	24	60	3	1,5	1	16
M13 006 2SBB	24	60	6	1,5	1	16

