

Fan-coil actuator with 0 – 10 V control

F430R3V10

Description

Actuator in DIN modularity for temperature control systems which use fan-coils with 2 or 4 pipes with 3 speeds and 0 – 10 V valve control or fan-coils with 2 or 4 pipes with on/off valves and 0 – 10 V speed control.

Has 3 relay outputs and 2 0 – 10 V outputs; the operation of the outputs depends on the device configuration (see "Configuration" section).

The LED are used to indicate the status of the corresponding outputs (relays and 0 – 10 V).

NOTE: the actuator function for fan-coils with 2 or 4 pipes with on/off valves and 0 – 10 V speed control is only available from production batch 16W09.

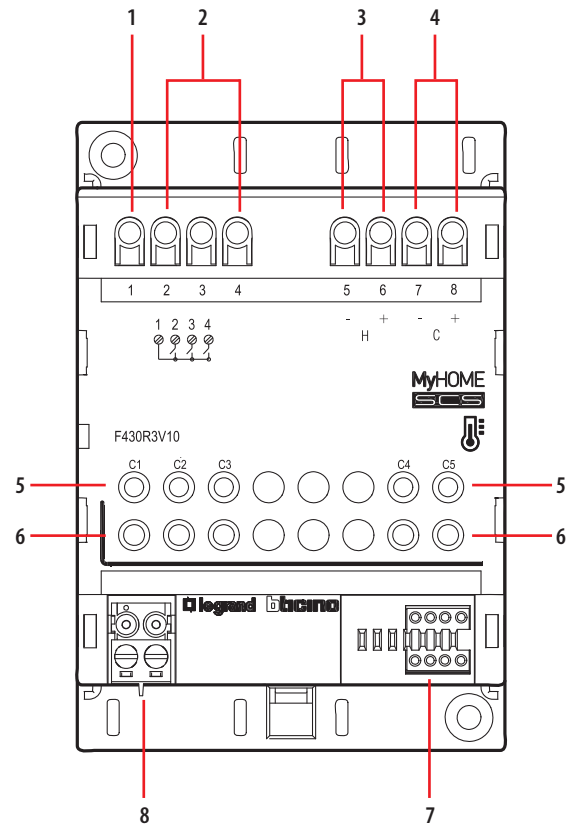
Technical data

Power supply from SCS BUS:	18 – 27 Vdc
Stand by absorption:	20 mA
Max. absorption:	60 mA
Operating temperature:	5 – 40 °C
Maximum current supplied by each 0-10 V output:	1 mA
Maximum driven power for the relays:	4 A (resistive); 1 A (inductive)

Dimensional data

4 DIN modules

Front view



Legend

1. Common contact
2. Fan-coil fan speed
3. Output H 0 – 10 V heating
4. Output C 0 – 10 V cooling
5. Pushbuttons for the complete opening/closure of the valves, and for changing the fan speed
6. LED
7. Configurator socket
8. BUS

Configuration

⊙	ZA	⊙
⊙	ZB	⊙
⊙	N	⊙
⊙	LOAD	⊙

ZA, ZB = Actuator address (01 – 99)
N = Progressive number in the zone(1 – 9)
LOAD = Type of load (0 – 4)

On the basis of the value of the LOAD configurator the relay outputs and the 0 – 10 V outputs may work as follows:

LOAD = 0 - Control of one 4-tube fan-coil with 0 – 10 V valves

Relay 1	Fan speed 1
Relay 2	Fan speed 2
Relay 3	Fan speed 3
0 – 10 V 1	Heating valve
0 – 10 V 2	Cooling valve

LOAD = 1 - Control of one 2-tube fan-coil with 0 – 10 V valve

Relay 1	Fan speed 1
Relay 2	Fan speed 2
Relay 3	Fan speed 3
0 – 10 V 1	Heating / cooling valve
0 – 10 V 2	Not used

LOAD = 2 - Control of one 4-tube fan-coil with 0 – 10 V speed - just one 0 – 10 V output used

Relay 1	Heating valve
Relay 2	Cooling valve
Relay 3	Heating / cooling reference*
0 – 10 V 1	Heating / cooling speed
0 – 10 V 2	Not used

* Reference signal to be connected to the E/I output of some fan-coil control units.

LOAD = 3 - Control of one 4-tube fan-coil with 0 – 10 V speed - two 0 – 10 V outputs used

Relay 1	Heating valve
Relay 2	Cooling valve
Relay 3	Not used
0 – 10 V 1	Heating speed
0 – 10 V 2	Cooling speed

LOAD = 4 - Control of one 2-tube fan-coil with 0 – 10 V speed

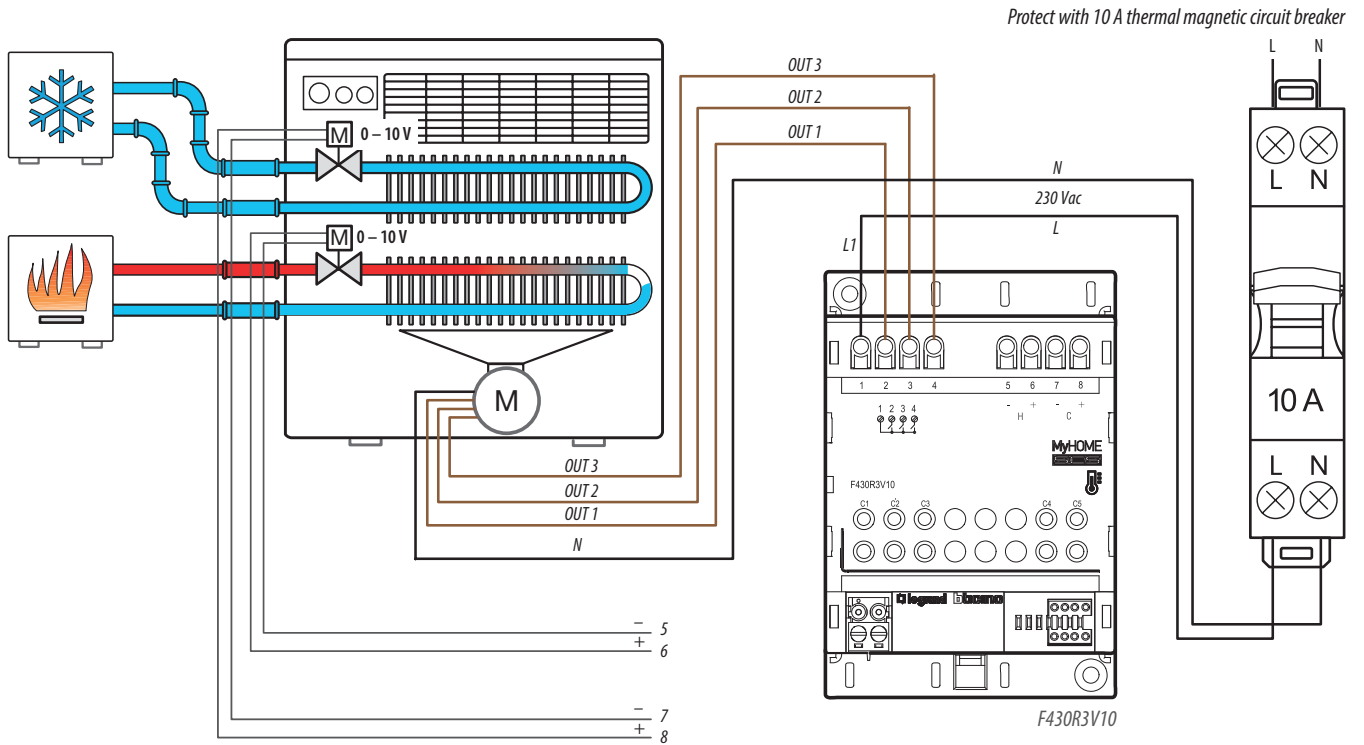
Relay 1	Heating / cooling valve
Relay 2	Not used
Relay 3	Not used
0 – 10 V 1	Heating / cooling valve
0 – 10 V 2	Not used

Virtual configuration using the MyHOME_Suite software:

The device can be configured remotely only if not already physically configured. The configuration is completed using version 3.2 or higher of the MyHOME_Suite software, which can be downloaded from the website www.homesystems-legrandgroup.com.

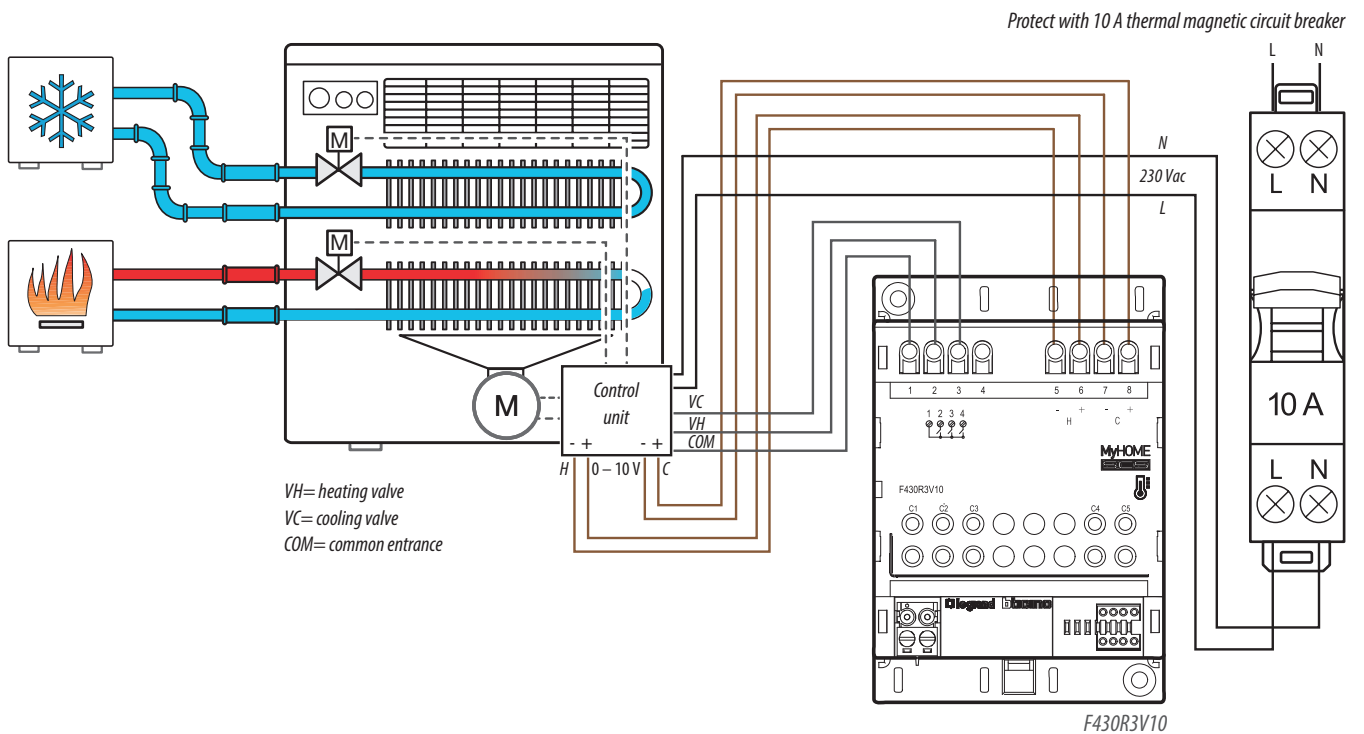
Wiring diagrams

NOTE: we recommend checking the installation diagram of the fan-coil unit used before making the connections.
 Example of connection of a 4-tube fan-coil with 0 – 10 V valves. (LOAD = 0).



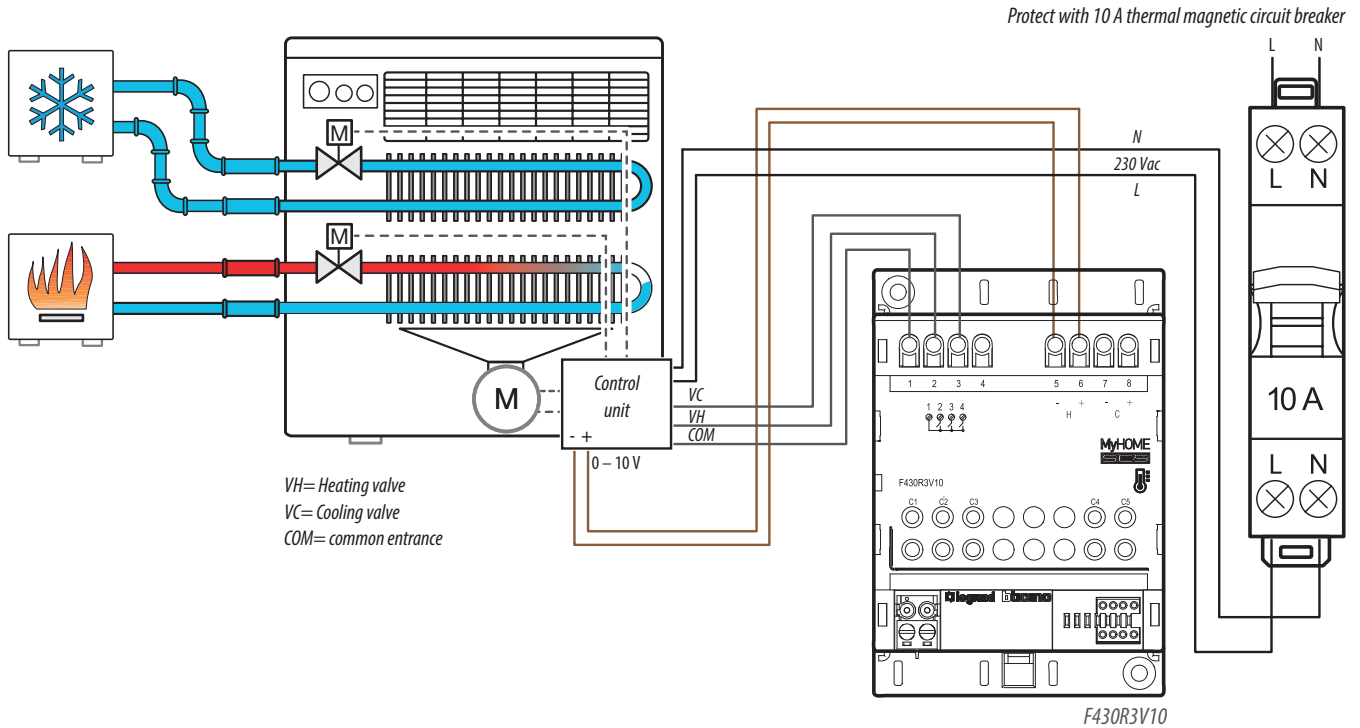
NOTE: In the case of 2-pipe fan-coil with 0 – 10 V valve (LOAD = 1) use the previous diagram and connect the single valve to terminals 5 – 6.

Example of connection of a 4-tube fan-coil with 0 – 10 V speed - two 0 – 10 V outputs used (LOAD = 3).



Wiring diagrams

Example of connection of a 4-pipe fan-coil with 0 – 10 V speed - use of a single 0 – 10 V output (LOAD = 2), in the case of fan-coil units which do not require the E/I reference signal.



NOTE: in the case of 2-pipe fan-coil with 0 – 10 V speed (LOAD = 4) use the previous diagram and connect the single valve to terminal 2.

Example of connection of a 4-pipe fan-coil with 0 – 10 V speed - use of a single 0 – 10 V output (LOAD = 2), in the case of fan-coil units which require the E/I reference signal.

