

# FAN COIL VALVES USER MANUAL

Many thanks for your selection of our products and services and also for your trust and support to us. To avoid damages to the product during installation, please read the manual carefully before installing.



200 Series  
2-way



300 Series  
3-way



400 Series  
3-way 4-port

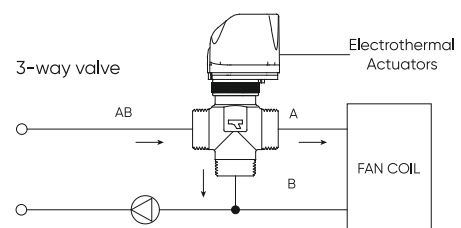
## MATERIALS AND TECHNICAL DATA

Maximum pressure, constant Kv models	16 bar
Maximum pressure, variable Kv models	10 bar
Minimum fluid temperature	4°C
Maximum fluid temperature	110°C
Usable fluids	Water (with glycol ≤ 50%)
Disc stroke	2.5 mm
Bypass leakage	< 0.02 % Kvs
Actuator connection	M30x1.5
Body	Forging brass
Stem	Stainless steel
Spring	Stainless steel
Disc rubber	EPDM

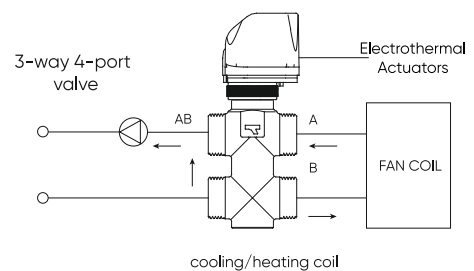
## SPECIFICATION AND TECHNICAL DATA

MODEL	VALVE TYPE	FLOW RATE (Kvs) DIRECT WAY	FLOW RATE (Kvs) BYPASS	CLOSING-OFF PRESSURE(bar)	CONNECTING SIZE
20015	2-way valve	1.7	/	2.5	G1/2
20034		2.8	/	1.5	G3/4
20010		4.5	/	0.7	G1
30015	3-way valve	1.7	1.3	2.5	G1/2
30020		2.8	1.8	1.5	G3/4
30025		4.5	3.1	0.7	G1
40015	3-way with bypass valve (4 outlet)	1.7	1.3	2.5	G1/2
40020		2.8	1.8	1.5	G3/4

### Diverter valve and Mixing valve



### Diverter valve and Mixing valve



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## DESCRIPTION

200, 300 and 400 Series fan coil control valves are used for controlling the flow of hot or cold water in heating and air conditioning systems. They are operated by actuators with effective stroke of 2.5 mm, electrothermal actuators. As standard, the valves are available in the following configurations with male thread: 200 Series 2-way; 300 Series 3-way; 400 Series 3-way 4-port with built-in bypass. The valve disc is operated by electrothermal actuators, which are available in the following versions:

- NO (normally open), 2 wires (standard) or 4 wires (with auxiliary microswitch contact);
- NC (normally closed), 2 wires (standard) or 4 wires (with auxiliary microswitch contact).

All the actuators are easy to fix to the valve body by means of a threaded ring-nut (M30x1.5)

## OPERATION

The valves are of Normally Open type and can be adjusted or fully closed by manually turning the threaded plastic cap, which controls the valve stem. When used in conjunction with NC actuators, in rest conditions (actuator not energised), the valve becomes normally closed (NC) (straight way closed and bypass open if 3-way type): if the actuator is energised, the valve opens. When used in conjunction with NO actuators, in rest conditions (actuator not energised), the valve remains normally open (NO) (straight way open and bypass closed if 3-way type): if the actuator is energised, the valve closes. The fluid flow rate and pressure drop of the valves can be determined from the flow curves. In conjunction with ON/OFF actuators, however, they assume the characteristics of the device in question.

The 3-way (or 3-way 4-port) valves are designed and manufactured for use as either diverter valves (one inlet and two outlets) or mixing valves (two inlets and one outlet). Observe the maximum operating pressure shown in the table to avoid possible malfunctions and/or noise. The reliability of the 200, 300 and 400 Series fan coil control valves is guaranteed by the fact that every single product is tested to ensure the outward pressure tightness of the valve body and its components, and the pressure tightness of the disc when it shuts off the flow.

## APPLICATION

The valves are used for shutting of (200 Series, 2-way) or diverting/mixing (300 and 400 Series, 3-way 4-port in sizes 1/2" and 3/4" the heat carrier fluid to a heating or air conditioning system as required by the room thermostat (or programmable thermostat). Thanks to their compact size, 200, 300 and 400 Series control valves are particularly suitable for installation on groups of individual terminal units (fan coils, fan units). Due to the special configuration of the disc controlling the bypass flow, 300 Series 3-way fan coil valves and 400 Series 3-way 4-port fan coil valves, can be used as either diverter or mixing valves (thus optimising the various plumbing requirements in assembly)