



ROOM CONTROLLERS WITH AUTOMATIC MOTOR SPEED AND SEASON CHANGEOVER, ON-OFF

DB-TA-387

FUNCTION

- 2- or 4-pipe fan coil with 3-speed motor fan control for room temperature applications with:
- knob adjustment max/comfort/min;
 - automatic season changeover, referred to temperature of water supplied to the fan coil and measured by the water sensor for 2-pipe systems. The selection can also be done by a free potential contact (contact open = cooling, contact closed = heating);
 - automatic season changeover by room temperature for 4-pipe systems;
 - 3 motor speed change according to the measured tem-

- perature and the setpoint;
- additional electric heater control by ON/OFF/electric heater switch;
- indication for dirty filter (red led) and active output (green led);
- "silence" working, overriding the fan to the minimum speed;
- air mixing cycle (fan on every 10 minutes);
- internal or remote temperature sensor (optional).

TYPE	SYSTEMS (PIPE)	ON/OFF/RES.	AUTO/SILENT	W/S	3 SPEED
DB-TA-387-566	4	•	•	zn	auto
DB-TA-387-866	2	•	•	auto	auto

auto working season (W/S) selection by water sensor for 2-pipe system
zn working season (W/S) selection by air sensor for 4-pipe system

Note: The controllers are supplied with water sensor model: NTA020-027P.

On request:
 optional remote 2 m cable sensor, selectable by jumper; ordering code: NT0220-NTC10-02.

TECHNICAL DATA

- Power supply:** 230 Vac \pm 10%, 50/60 Hz
Max load: 6 A for motor output, valves or electric heater relay
Output: 5 relays 8 A 230 Vac
Power cons.: 1 W
Sensors: NTC 10K, air sensor and water sensor
Setpoint: summer: $+24 \pm 5$ °C
 winter: $+20 \pm 5$ °C
 mechanical limitation of the setpoint adjustment
Differential: 0.5 K
Working: 0...+40 °C
 10...90% r.h. (without condensing)
 -20...+70 °C
Storage: -20...+70 °C
 < 95 % r.h.
Housing: ABS fireproof according to UL94 V-0 color (RAL 9010)
Protection: IP30, class II
Size: 144 x 82 x 34 mm
Weight: 210 g

Jumper setting:

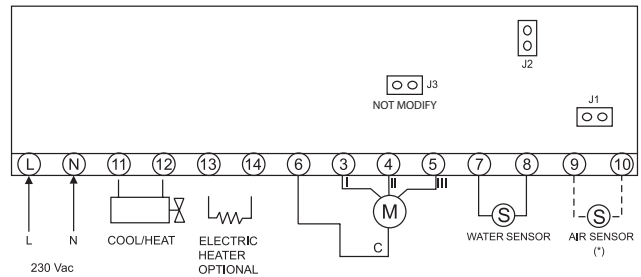
- J1 closed = internal sensor
- J1 open = remote sensor
- J2 open = not modify
- J3 closed = air mixing cycle
- J3 open = no air mixing cycle

The products are factory supplied with internal sensor and with air mixing cycle.

WIRING DIAGRAM

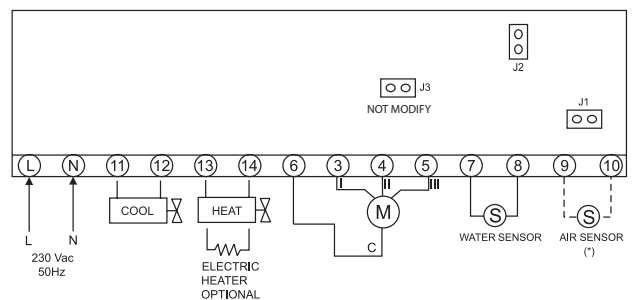
Terminal connections for air conditioning and heating systems.

2-pipe



(*) optional remote sensor

4-pipe



(*) optional remote sensor

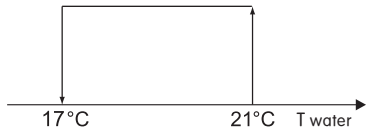


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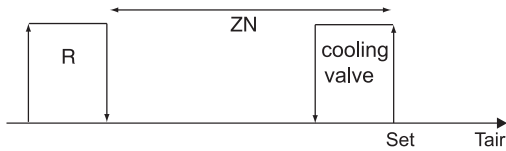
The water sensor is used as automatic season changeover in 2-pipe systems and minimum temperature thermostat in 4-pipe systems. With 2-pipe systems the season is selected automatically by sensing the temperature of the water supplied to the fan coil upstream the valve.

2-pipe: logic of season changeover



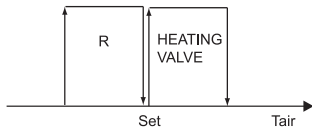
With switch on electric heater position operating mode is:
 - summer: it is possible to heat if the temperature drops below the setpoint by 4.5 °C (for spring and autumn or offices with different thermic loads);

2-pipe: logic of cooling

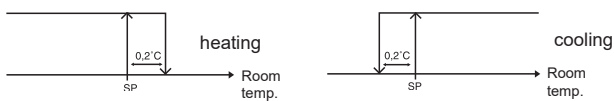


- winter: 2-stage heating is provided.

2-pipe: logic of heating



With switch on position I, operating mode is:



With 4-pipe system, season changeover is done automatically by air sensor. The season is selected comparing the room temperature with the setpoint and maintaining a dead zone of 4 °C.

4-pipe: logic of operating

