

# Base station 230V 10 zones HEATING/COOLING



BS-N2

## Description

BS-N2 is the central connection unit of a room-by-room temperature control for the surface temperature adjustment of heating and cooling systems, it can be adapted either on a DIN rail or directly on a wall.

BS-N2 allows to connect up to 10 room thermostats with its actuators of 230 V AC, and it also controls the boiler or heat pump through an voltage free output.

- ✓ Connects up to 10 room thermostats
- ✓ Power-off protection
- ✓ Control over the boiler and circulating pump
- ✓ Heat / Cool changeover input
- ✓ 120 delay start for heat pump and water pump
- ✓ Dew point sensor input
- Easy wiring and installation
- $\checkmark$  DIN rail installation
- LED working indicator

## Technical Data

Supply:AC230V, 50/60Hz	Work Temp. :0 °C – 40°C
Material:ABS+PC flame retardant	Work Humidity :20% - 90 %
Max Load:3A Total/Each zone max. 2A	Max number of thermostat connections:10pcs
Fuse:5 Amp, 20mm	Max number of actuator connections to 1 zone: 5pcs
Control Direction:normally close	Approvals :CE
Boiler/Heat pump Output:Dry contact	Protection Class: Class II + IP20
Pump Output:AC230V	Dimension(L*W*H): 332mm*102mm*51mm
Storage Temp. :20°C – 60°C	Weight: 550g
Change over output Heating/Cooling :230 Vac	

### Device overview



- 1. Supply 230V connection ports
- 2. Boiler/Heat pump connection ports
- 3. Circulating pump connection ports
- 4. Heating and cooling change over
- 5. Thermostat connection ports
- 6. Power-off switch
- 7. Shut-down delay via dip switch
- 8. Dew point sensor connection ports
- 9. Thermal actuator connection ports

- 10. Cable trough
- 11. Easy to inistall with screw
- 12. Indicator for thermostat
- 13. Indicator for the power
- 14. Indicator for dew poinit sensor
- 15. Indicator for heating
- 16. Indicator for circulating pump
- 17. Indicator for cooling

## Electrical wiring diagram

#### Power-off switch

This switch can cut off all circuits behind the power port, in order to the installation personnel to more conveniently connect and repair. However, when the user turns off the switch, the power port and the back of the switch are still powered and should not be touched.



#### Power supply wiring



#### Boiler or heatpump connection





#### Shut-down delay

This function means that when the thermostats have no output in all zones, the water pump and boiler will be shut down with a delay.





30S



1min







2min

5min

#### Pump connection





## Heating and Cooling change over connection

230Vac input for the changeover:

- Heating: the contact is opened
- Cooling: the contact is closed

To use this input please remove the bridge/jumper.



Tips:Room thermostat should connect CO to this ports to achieve changeover for heating and cooling.

## System wiring diagram

#### Dew point sensor connection

Dew point sensor is installed to prevent condensation in the area radiated by the system in cooling mode. Once the sensor detects condensation, the device will cut off the cold water supply and stop pump running, meanwhile,the indicator light of the dew point sensor will start flashing.After the alarm is cleared, BS-N2 will return to normal operation.



Tips:Installing the dew point sensor requires removing the jumper.



## Dimensions

unit: mm



## Installation

1 Press the button to open box cover to both sides.



Base station can mount directly to the wall using the two screw holes in the back, or it can be DIN rail mounted as shown below.



Use cable size 0,5- 1,3 mm<sup>2</sup> for solid core cable. The wires lengths should be measured according to the distance of the terminals from the cable clamp. After fixing the wires in the relative terminals, insert the cable body into the cable clamp for clamping.



4 Put the upper cover into the base along the edge of the shell and press the upper cover to make them fit well.





We're Legom, a tech company specializing in HVAC Smart Home solutions. From component provider, we've grown into a global OEM and ODM service provider, operating in 90+ countries with 400+partners, boosting globalHVAC energy efficiency. Let's explore strategic partnerships for a mutually beneficial community.

#### **OUR OFFICE**

Jiaxing Legom Technology Co.,Ltd.

301-2, Building 1, No. 661 Xinchengtang Road, Xincheng Street, Jiaxing, Zhejiang,China Phone:+86 573-82288322 Email : info@legomsmart.com