

Temperature Protection Relay

BJ-S digital temperature protection relay can replace the traditional bimetallic control switch, design to automatically control the install enclosure inside temperature & humidity variation within a specific range, reliable design can be used in the worst environment for long-term use. It is the ideal product to protect the normal efficient operation of electric equipment and to reduce cost.

With LED / LCD display, and optional RS485 communication port for remote monitoring. Optional customerized control logic design, can be used in other place need of temperature and humidity control.

Main Features

- Standard panel size 48x48mm / 72x72mm
- Optional 35mm DIN rail (only 48x48mm mode)
- 0.39" height LED, prevent dazzle, highly visible display
- Heat/Fan control mode free to configuration
- Self calibration technology, keep stabilization
- Products package include temperature / humidity probe



Technical characteristics

Power supply:	
Standard	85~265VAC 50/60Hz
Optional	24/48DC
Power consumption	<5VA
Input signal:	
Input signal channel	Max 2 channels
Temperature sensor	NTC (-20~99C) or customer request
Humidity sensor	Digital type (0~99RH) or customer request
Sampling ratio	400ms
Control output port:	
Output channel	Max 2 channels
Relay	250VAC, 5A (10A optional)
Other port:	
Linear output	DC 4~20mA/0~5V optional
Alarm output	Passive nodes
Communication output	RS-485 MODBUS RTU, 4800/9600bauds
Other output port:	
IP protect	40
Isolation:	
Test voltage	Galvanic isolation between input, output circuits and auxiliary supply 1.5KV RMS 50 Hz for 1 minute
Ambient temperature:	
Operating	-10~55C
Storage	-40~70C, 20 ~ 93%RH ; No condensing

Ordering Information

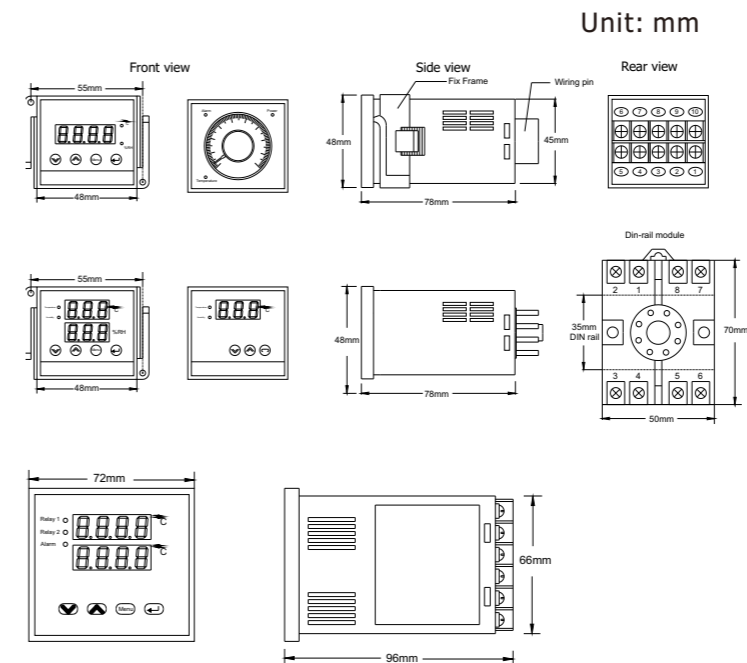
BJ - S 1 - W2S3 - 4 - 5 - 6

Series Name	Optional Type
1 panel size	42: For 72(W) x 72(H) x 96(D)mm Blank: standard 48(W) x 48(H) x 90(D)mm
2 temperature signal in	1: one channel temperature sensor input 2: two channel temperature sensor input
3 humidity signal in	1: one channel humidity sensor input 2: two channel humidity sensor input
4 control output	K1: one channel output K2: two channel output
5 communication port	R: one channel RS-485 communication port Blank: without this function
6 sensor type	Blank: NTC sensor(0.2% accuracy) T: thermocouple (-K, -J, -T, -E, -N, -R, -S, -B, -L, -U, -YXK) P: platinum RTD (-PT100- PT1000) L: linear signal (0~5V, 0~10V, 0~20mA, 4~20mA, 0~50mV)

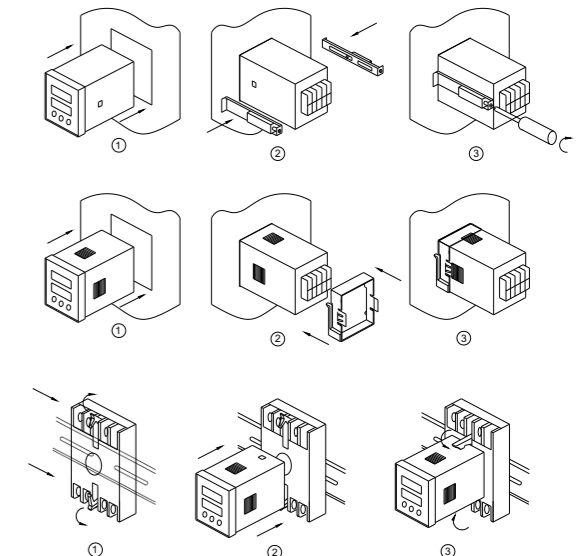
Notes:

1. Product specifications will change from time to time. Please contact Blue Jay for latest specifications.
2. Please confirm all the parameters with our staff before ordering.
3. Have special requirements, please contact Blue Jay Technical Support Team: tech@cqbluejay.com

Install Dimensions



Install diagrams



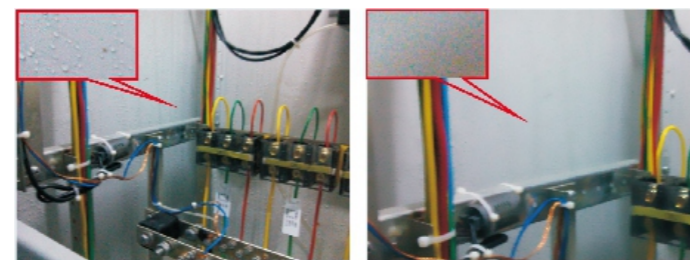
Peltier Condenser

HD series peltier condenser using semiconductor technology, in a certain place of cabinet to lead controlled condensation, make the interior environment humidity fall to safe value. It is refrigerant-free cooling device, can used in switchgear, electrical cabinet, exchange control cabinets, outdoor terminal boxes etc.

It designed ultra-small install size, high efficiency energy-saving, do not need extra heater and fan wiring. And comes with the data acquisition module for remote monitoring, It's an efficient and reliable device to replace the old thermostat and heater / fan combination.



Dehumidification effect contrast



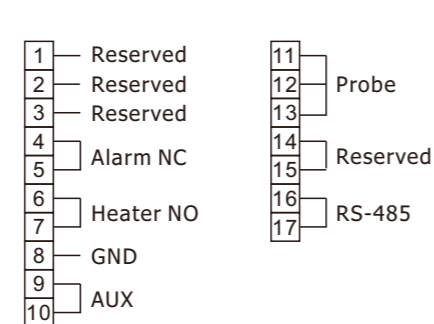
Before- Water on the wall

After- No water on the wall

Main Features

- Small size, easy for cabinet inside installation.
- Quickly reduce the switchgear internal humidity, exclude water out of air.
- Condensate water will be drained directly to the outside of the cabinet by the aqueduct.
- Automatic & manual dehumidification free to change, temperature start value and dehumidification start value adjustable.
- Real-time sampling temperature and humidity, support automatically working mode, do not extra sensor and probe.
- Build in memory to record settings, can keep original working mode after power recover.
- With diagnosis function, user can quickly find failure point to debug.
- Shell and internal components are well isolation design, can work in high humidity and strong electromagnetic field.
- Optional passive output node.
- Optional RS485 port.
- Optional external heater.

Typical wiring



Notes: Wiring according to different product specifications are subject to change. Please reference to the label on product body!

Technical characteristics

	HD8000B	HD8000L	HD6001	HD6002	HD105
Working power					
Power supply	85V~265VAC/DC 50Hz				
Peltier rated power ⁽¹⁾	30W, 40W, 60W optional				15W
Dehumidifying capacity	350ml in 24h	350ml in 24h	300ml in 24h	300ml in 24h	100ml in 24h
	Test in 60W @35C, 90%RH	Test in 60W @35C, 90%RH	Test in 30W @35C, 90%RH	Test in 30W @35C, 90%RH	Test in 15W @35C, 90%RH
Measurement and ability					
Humidity monitor range	20%RH~98%RH				
Sensor accuracy ⁽²⁾	±5%RH				
Dehumidify start threshold	45%RH~98%RH, Default 65%RH				
Environment temperature	5~60°C				
Temperature monitor range	-40~80°C				/
Sensor accuracy	±1.0°C				/
Heater start threshold	1~55°C, Default 5°C				/
Heater power ⁽³⁾	50~500W optional				/
Other					
Physical dimension	130*243*60	134.5*130*68.5	100*174*70	100*144*60	73*88*52
Enclosure material	Sheet metal with anti-rust spray	Aluminum alloy	ABS	ABS	ABS
Screen	2*3 digital LED	2digital LED	2*3 digital LED	2*3 digital LED	2digital LED
Standards	IEC60255-22-1				
Comm interface	RS485, modbus-RTU				

Style image



Notes:

1. The choice of rated power is related to the cabinet inner volume and airtightness, and the general reference value is:
 0.5cubic meter cabinet choose 15W
 1.0cubic meter cabinet choose 30W
 1.5cubic meter cabinet choose 40W
 2.0cubic meter cabinet choose 60W
 Cabinet volume are calculated according to the inner diameter, Length*Width*Height
2. Sensor accuracy 5% is test with inside probe, products optional external cable type sensor. Please contact sales team before order.
3. Device provide passive NO contact for external heater connection, capacity is AC250V5A. User can free to order heater or purchase with DH series.