FUNCTION

Temperature control in heating or cooling systems with:
- 1 or 2 relay outputs (depending on models);
- 2 different working ranges;
- 1 input for NTC 10K sensor (not included) and 1 input for setpoint remote control (not included).

TYPE	STAGES	RANGE °C	DIFF. IN THE STAGE K	DIFF. BETW THE STAGES K	MAX TEMP. SENSOR °C
DB-I1D/1	1	-10...+40	+0.5...+6		-40...+110
DB-I1D/2	1	+30...+80	+0.5...+6		-40...+110
DB-I2D/1	2	-10...+40	+0.5...+6	+0.5...+6	-40...+110
DB-I2D/2	2	+30...+80	+0.5...+6	+0.5...+6	-40...+110

On request:
setpoint remote control; ordering code: DB-CDP/N1, DB-CDP/N2, DB-CDP/D1

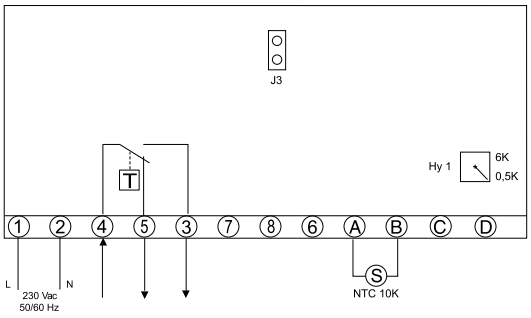
TECHNICAL FEATURES

Power supply:	230 Vac ± 10%, 50/60 Hz
Input:	for 1 NTC 10K sensor for DB-CDP/x, setpoint remote control
Output:	1 or 2 relays SPDT 230 Vac 10 A
Power cons.:	< 1.5 W
Precision:	± 1 K
Working:	-20...+50 °C 10...90% r.h. (non condensing)
Storage:	-20...+70 °C < 95% r.h.
Housing:	ABS self-extinguished according to UL94 V-0
Protection:	IP65, class II
Size:	132 x 85 x 88 mm
Weight:	480 g

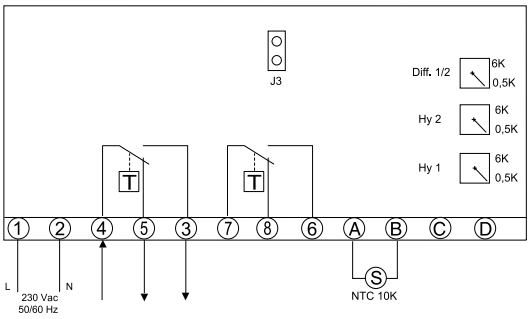
ELECTRICAL WIRING

Terminal connections for heating or cooling systems with 1 or 2 stages.

DB-I1D



DB-I2D

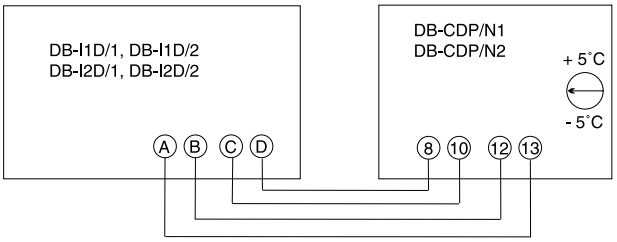


Jumper setting:

- J3 closed = cooling
- J3 open = heating

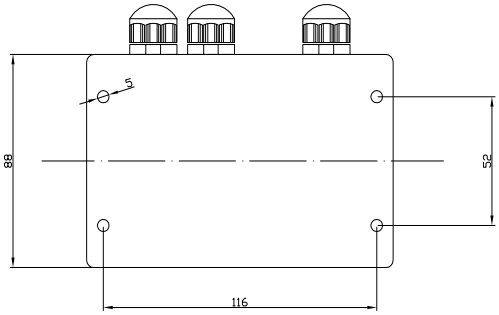
The products are factory supplied with cooling jumper setting.
The controller is able to recognize automatically if the setpoint remote control is connected to the unit.

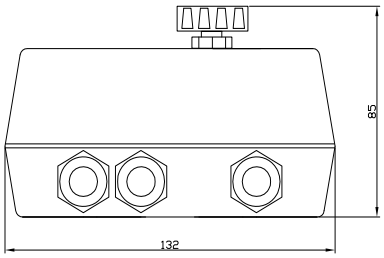
Connections between DB-IXD and DB-CDP/x.



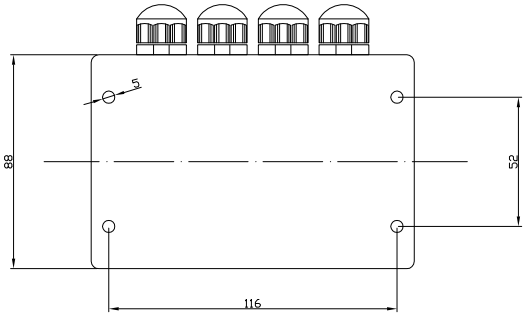
DIMENSIONS (mm)

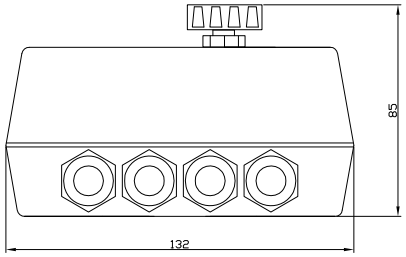
DB-I1D





DB-I2D





FUNCTION

Temperature and humidity control in heating, cooling, humidification and dehumidification systems with:
- 4 or 8 relay outputs;
- mode of operating for each relay:
  - "heating";
  - "cooling";
  - "alarm", with adjustable delay for relay activation and manual reset for the relay deactivation;
- setting of activation delay between successive activations for each relay;
- setting of activation point for each relay with "offset" for each relay (distance from the setpoint);
- setting of the "measure offset" for a possible sensor calibration;
- choice of "rotation of the stages" operating mode, with casual sequence;
- 1 input for NTC 10K sensor and/or for 4...20 mA;
- 1 input for remote variator of setpoint (optional accessory) for the models with °C range;
- 1 input for the serial channel (for the model DB-I4D/02/004);
- password and 2 access levels.

APPLICATIONS:

Driving of heating and cooling, humidification and dehumidification systems by the control of heaters, heat pumps, coolers, humidifiers and dehumidifiers, from 4 independent loads onward with supervision of alarms.

TYPE	RANGE	STAGES	DIFF. IN THE STAGE	DIFF. BETWEEN THE STAGES	INPUT	DELAY min.
DB-I4D/02/001	-50...+110 °C	4	0...+10 K	+5…+6 K	NTC 10K	0...9.5
DB-I4D/02/002	0...100 % r.h.	4	0...100 % r.h.	0.5…6% r.h.	4...20 mA	0...9.5
DB-I4D/02/003	-50...+110 °C 0...100 % r.h.	4	0...+10 K 0...10 % r.h.	+5…+6 K 0.5…6% r.h.	NTC 10K 4...20 mA	0...9.5
DB-I4D/02/004	-50...+110 °C	8	0...10 K	+5…+6 K	NTC 10K	0...9.5

TECHNICAL FEATURES

Power supply: 230 Vac ± 10%, 50/60 Hz
Input:
- NTC 10K sensor and/or humidity-current transmitter 4...20 mA
- setpoint remote control (optional);
- serial channel (only model DB I4D/02/004)

Output: 4 or 8 SPDT relays 230 Vac 10 A
Power cons.: < 3 W
Visualization: 2 lines with 3 digit (7 segments display)
Setting of the parameters: 4 push/buttons keyboard on the front
Working: -10...+50 °C
10...90% r.h. (non condensing)
Storage: -20...+70 °C
< 95% r.h.
Housing: Makrolon
Size: 200 x 120 x 75 mm
Protection: IP65, class II
Weight: 920 g

SOFTWARE

The controller setting is done by keyboard on the front of unit and it is necessary to set value of setpoint, working mode for each relay, offset values (distance from the setpoint where the load must be activated), differentials, possible min and max temperature for activating alarms, possible password.

ON REQUEST:

Remote setpoint control:
- DB-CDP/N1: change of setpoint remotely +/- 5°C with potentiometer and NTC sensor
- DB-CDP/N2: change of setpoint remotely +/- 5 °C with potentiometer, NTC sensor, On/Off and 3- speed switches
- DB-CDP/D1: change of setpoint remotely +/- 5 °C with potentiometer, NTC sensor and display
- DB-CDP/D2: change of setpoint remotely +/- 5 °C with potentiometer, NTC sensor, display, On/Off and 3- speed switches

NOTE:
Do not use remote setpoint control with the model DB-I4D-02/002.

ELECTRICAL WIRING

DB-I4D/02/001, DB-I4D/02/002 and DB-I4D/02/003

The electrical wirings are shown in fig. 1. For input sensors see table.

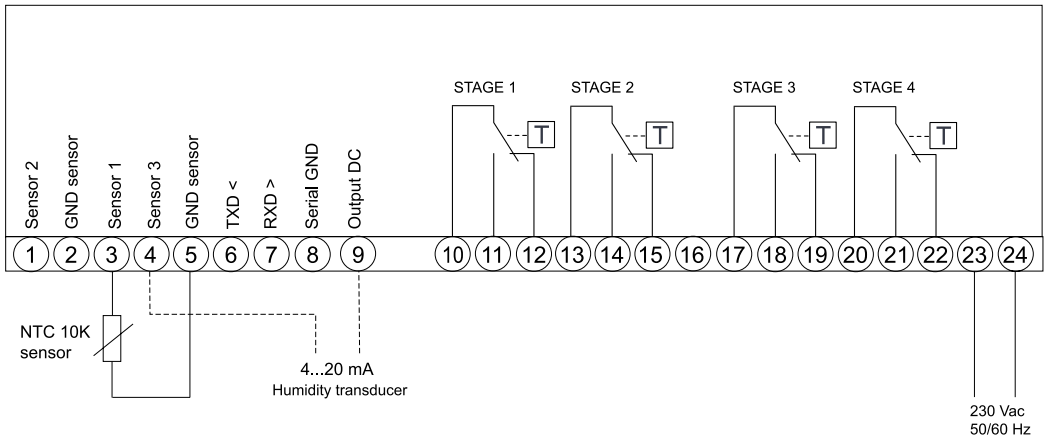


fig. 1

DB-I4D/02/004

The electrical wiring between master and slave unity are shown in fig. 2.

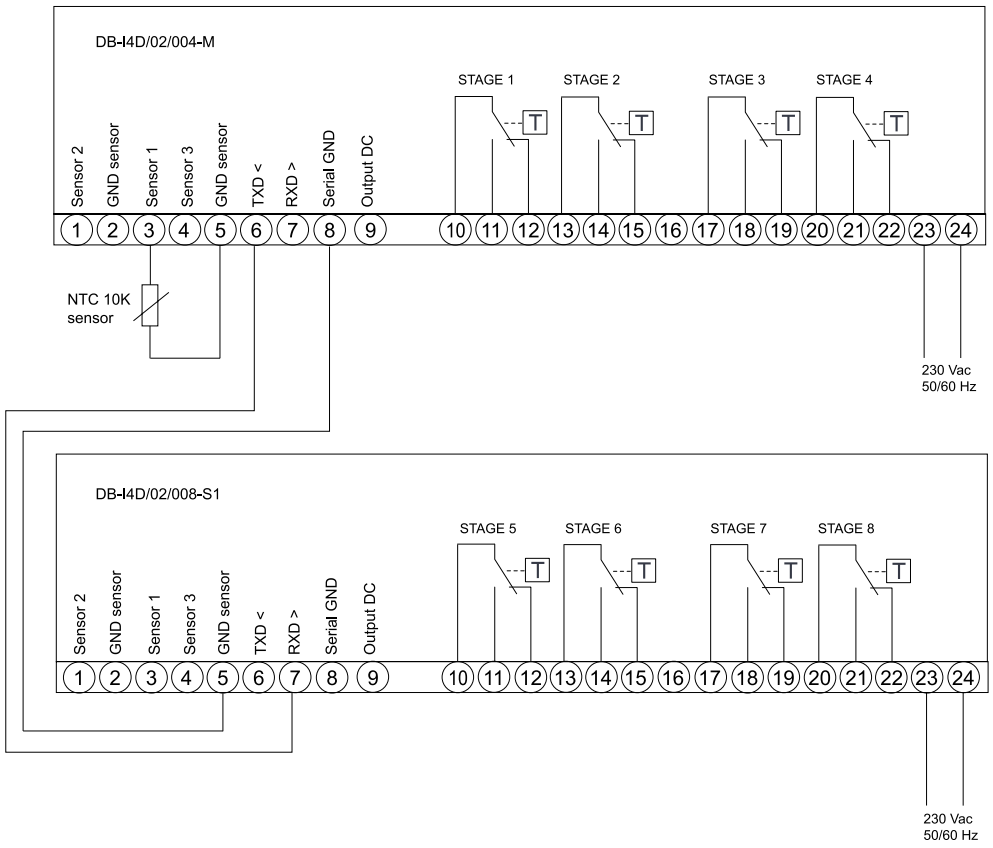


fig. 2

DB-I4D/02/00x with the remote setpoint control

fig. 3a DB-CDP as remote setpoint control;
fig. 3b DB-CDP as remote setpoint control and temperature sensor.

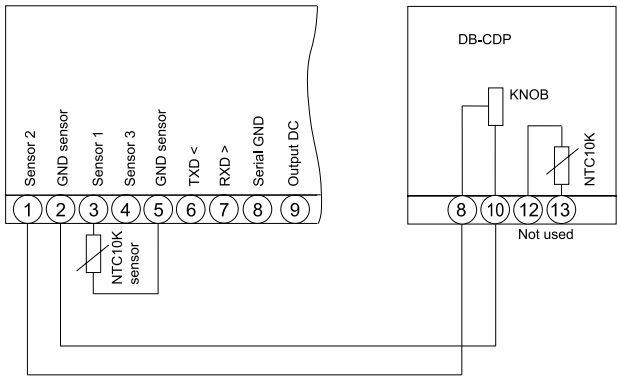


fig. 3a

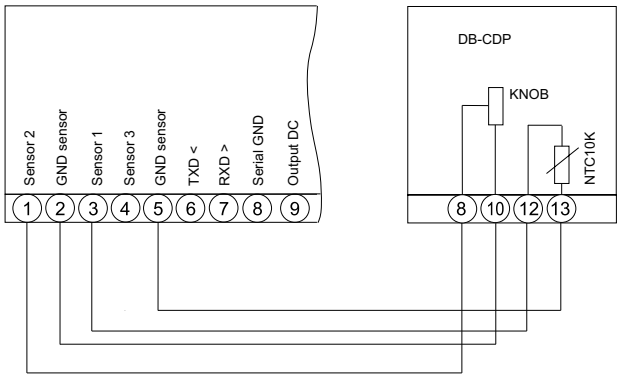


fig. 3b

DIMENSIONS (mm)