

Electronic room thermostat

# **IB – Therm 2035**

for ventilation support, recuperators or four-pipes fan coils

# PRODUCT IS CE MARKED **( E**

#### AND WAS PRODUCED IN ACCORDANCE WITH ISO 9001 STANDARD

"INSBUD" ul. Niepodległości 16a 32-300 Olkusz Poland

sale department: +48 (32) 626 18 00 sale department: +48 (32) 626 18 18 technical department: +48 (32) 626 18 07 technical department: +48 (32) 626 18 08

fax: +48 (32) 626 18 19 e-mail: insbud@insbud.net



#### WWW.INSBUD.NET

InsBud company supports policy of development. The right to making changes and improvements in products and manuals without prior notice reserved!

The contents of this manual - the text and graphics are owned by InsBud company or its subcontractors. It is legally protected.

# Contents

# **IB-THERM 203S**

General Information	
Features	∠
Principle of Operation	∠
Technical Data	∠
Scope of Delivery	5
Structure	5
Structure of Outputs	6
Exemplary Connection	7
Warranty	۶

## **GENERAL INFORMATION**

**IB-Therm 203S** room thermostat is designed to control valves, air dampers and heaters, fan coils and other heating appliances after usign relay. **IB-Therm 203S** thermostat allows to control process of heating, cooling and ventilation comfortably in the each type of buildings. It allows to save energy costs, contributing to protect our environment.

## **F**EATURES

- Esthetic and traditional design
- Easy and intuitive operating
- Sensor with a negative temperature coefficient (NTC)
- Available modes:
  - » heating
  - cooling
- Fan speed:
  - >> low
  - » medium
  - » high
- ON/OFF switch
- Ability to precise room temperature setting, according to needs
- Independent outputs for heating and cooling devices dedicated for four-pipes fan-coils.
- Standard mounting dimensions
- Surface mounting

## PRINCIPLE OF OPERATION

Thermostat measures the temperature by built-in sensor. The knob is used to set the desired temperature (switching threshold).

In the heating mode heating device is turned on when the real temperature is lower than the desired temperature, and cooling device is always turned off.

In the cooling mode cooling device is turned on when the real temperature is higher than the desired temperature, and heating device is always turned off.

Ventilation speed switch allows to set ventilation's efficiency (fan coil gear, fan gear).

Thanks to independent outputs for heating and cooling, both devices can be connected to the thermostat at the same time (for example: heater and air conditioner). It means that selection of the currently working device is only made by heating/cooling switch (the logical requirement is reversed simultaneously).

# **TECHNICAL DATA**

	Energy consumption:	< 2 W
	Setting range:	10÷ 30 °C
C 3°	Hysteresis:	1 °C
CF"	Accuracy:	1 °C
T T	Maximum load:	400 W
C 3°	Casing:	ABS
	Protection rating:	IP20
T T	Storage temperature:	-20÷ 60 °C
T 3°	Operating temperature:	0 ÷ 60 °C
	Control:	electronic
	Power supply:	230V AC or
		24V AC/DC

# **S**COPE OF **D**ELIVERY

# **S**COPE OF **D**ELIVERY

K3°

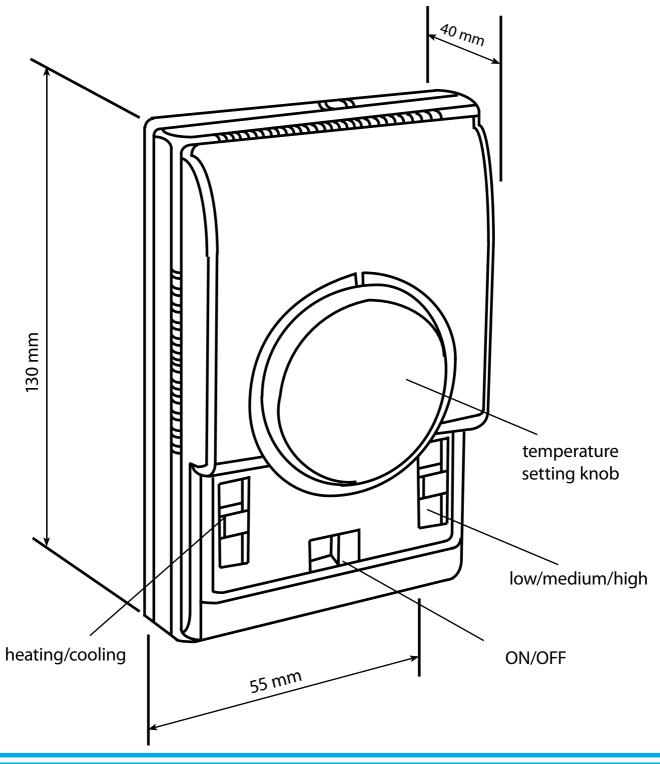
1x **IB-Therm 203S** thermostat

1x Operating manual

Thermostats powered from 230V mains voltage are delivered implicitly. Also thermo-

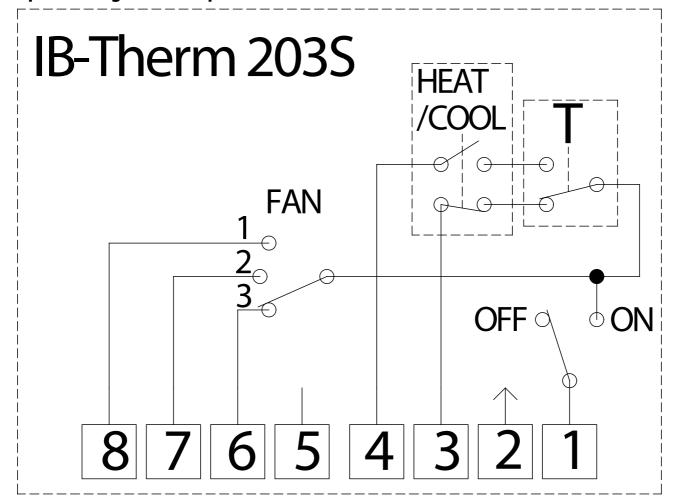
stats powered from 24V voltage source can be delivered (the same model for AC and DC voltage) if ordered. If you want to buy 24V thermostat, please indicate it in the order.

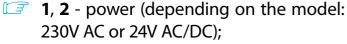
# **S**TRUCTURE



# **STRUCTURE OF OUTPUTS**

#### Simplified diagram of outputs:





**3** - this output is short to the input no. 1 when following requirements are simultaneously met: the thermostat is turned on (ON), it works in heating mode and the real temperature is lower than the desired temperature;

**4** - this output is short to the input no. 1 when following requirements are simultaneously met: the thermostat is turned on (ON), it works in cooling mode and the real temperature is higher than the desired temperature;

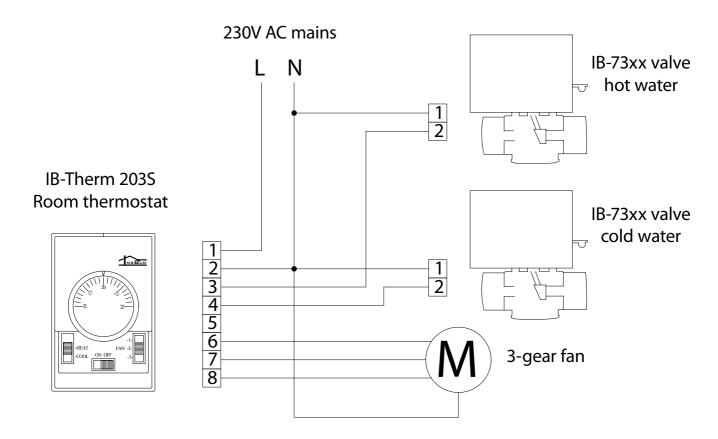
- **5** not used;
- **6** output of gear 3. It is short to the input no. 1 when both requirements are simultaneously met: the thermostat is

turned on (ON) and 'FAN' switch is in the position '3';

- **7** output of gear 2. It is short to the input no. 1 when both requirements are simultaneously met: the thermostat is turned on (ON) and 'FAN' switch is in the position '2';
- **8** output of gear 1. It is short to the input no. 1 when both requirements are simultaneously met: the thermostat is turned on (ON) and 'FAN' switch is in the position '1';
  - Only one output is active at the same time (depending on selected operational mode: output no. 3 or output no. 4), or both outputs are inactive.

## **EXEMPLARY CONNECTION**

Following picture shows the exemplary wiring of "230V" model:



In this example, **IB-Therm 203S** thermostat controls the four-pipes fan coil. Heating or cooling mode is enabled and it can be changed by 'HEAT/COOL' switch at any time.

## In the heating mode:

When the thermostat is turned on and the real temperature is lower than the desired temperature, circulation valve of hot water is open (230V phase is on the output no. 3 of the thermostat) and fan works at chosen speed.

When the thermostat is turned off or the real temperature is higher than the desired temperature, both valves are closed (there is no phase either on output no. 3 or no. 4) and fan is turned off.

### In the cooling mode:

When the thermostat is turned on and the real temperature is higher than the desired temperature, circulation valve of cold water is open (230V phase is on the output no. 4 of the thermostat) and fan works at chosen speed.

When the thermostat is turned off or the real temperature is lower than the desired temperature, both valves are closed (there is no phase either on output no. 3 or no. 4) and fan is turned off.

# **WARRANTY**

# Warranty is granted on 24 months from the date of purchase of goods.

- Any defect disclosed during the warranty period will be removed within 21 working days, from the date of adoption of goods for service.
- In case of necessity of import goods or components from abroad, repair time is extended by the time needed to bring them.
- Customer provides product to service at his own cost. If the product is shipped at the expense of the service, it will not be received.
- At time repair service has no obligation to provide substitute product.
- Warranty repair will be made upon presentation of properly and legibly filled your warranty card, signed by guarantor and with sales document.
- Warranty covers only defects arising from causes inherent in goods. Damage resulting from external causes such as: mechanical damade, pollution, flooding, weather, improper installation or improper wiring and operations. Warranty does not apply in case unauthorized repair by customer, changes in software (firmware) and device formatting.
- Due to the natural consumption of consumables, some of them are not covered by warranty (for example: cables, battery, loader, micro contacts, buttons).
- In the event of unjustified claim for warranty repair, all additional cost are on customer's side.
- Service has right to refuse to perform warranty repairs for following: differences between documents and goods marks, make repairs on their own by customer, changes in product construction without authorization.

## WARRANTY

- Warranty repair refusal is equivalent to loss your warranty.
  - If it is not possible to test product before its purchase (distance selling), it is possible to return goods within 10 days. Returned goods cannot bear signs of exploitation, it must contain all elements with which it was delivered.
  - In the case of return of purchased goods all shipping costs are on buyer's side. For shipment please enclose purchase document and give precise details of the buyer with account number on which will be refunded an amount equal to the value of the returned goods, no later than 21 days from the date of delivery of the goods. This amount is reduced by shipping costs if these costs were incurred by the seller. Delivery of copy of document correction is necessary to a refund. Before return of goods please contact with seller.
- Warranty terms may be changed by local InsBud company partner.

"INSBUD" ul. Niepodległości 16a 32-300 Olkusz Poland

sale department: +48 (32) 626 18 00 sale department: +48 (32) 626 18 18 technical department: +48 (32) 626 18 07 technical department: +48 (32) 626 18 08

fax: +48 (32) 626 18 19 e-mail: insbud@insbud.net

