

## Rail DIN/Omega thermostat TBO180 V.0



From the elegance and prestige that have always distinguished BEINAT S.r.l., and from the concept of home fitness, the new electronic industrial thermostat TBO180 was born, which is a product that contains great technology in its small size.

The temperature is detected by means of a remote probe, and keeps the heat level constant, controlling any appliance, both for heating and air conditioning.

The extreme precision of the equipment allows an optimal exploitation of energy, avoiding waste and maintaining an adequate degree of comfort in the environment.

The external construction of the OMEGA bar makes the positioning ideal in hotels, industries and environments in the tertiary sector.

The external format of the luminaire allows a considerable installation speed, reducing labor costs.

The novelty of this new equipment is given by the flexibility of power it can be at:  
**from 230VAC or 12VDC**



**Important:** Assembly / maintenance of the appliance must be carried out by qualified personnel and in accordance with applicable laws and regulations. The manufacturer assumes no responsibility for the use of products that have to comply with particular environmental and / or installation standards.



### Important note

Before connecting the equipment, it is recommended that you read the instruction manual carefully and keep it for future reference. It is also recommended to perform the electrical connections correctly as per enclosed drawings, observing the instructions and the Standards.

**N.B. Refer to the documentation in all cases where the symbol is on the side**



**Installation  
and user guide**



**INSTALL IN SAFE  
AREA, NO ATEX**

## Useful informations

**CHECK** the integrity of the thermostat after having removed it from the box.  
Check that the data written on the box correspond to the product.  
Any use of the detector for purposes other than the intended one is considered improper, and as a result of which **BEINAT S.r.l.** therefore disclaims any responsibility for possible damages caused to people, animals or objects.  
Never clean with chemical products. If necessary after remove the voltage, wash with a moist cloth.  
Entrust always the installation and maintenance to technicians qualified and / or authorized which can ensure the original spare parts in case of failure.



## Check the contents of the package

**N ° 1 TBO100 thermostat**

### Sensors on demand

**ST300** Ambient sensor, suitable for, **TBO100**  
**ST320** Air duct sensor, suitable for, **TBO100**  
**ST400** Immersion sensor with thermowell suitable for, **TBO100**  
**ST450** Samital immersion probe suitable for, **TBO100**  
**ST500** Contact sensor suitable for, **TBO100**

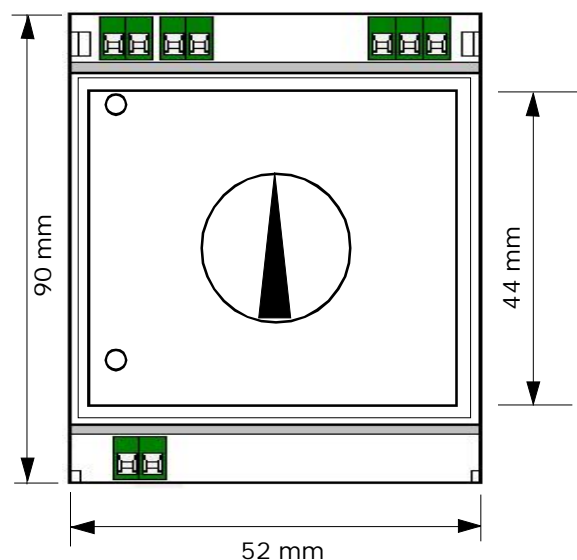
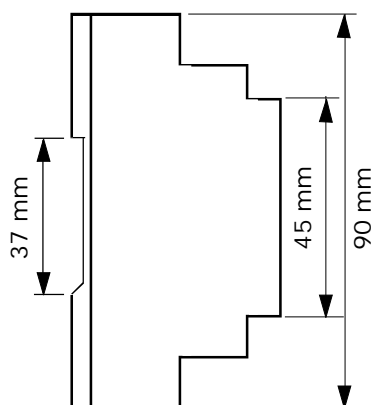


## Technical features

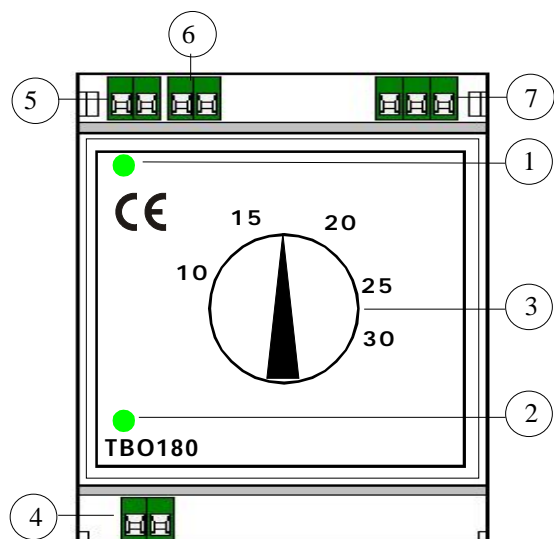
Power supply .....	230 VAC 50 / 60 Hz +/- 10%
Power supply .....	12 VAC or 12VDC +/- 10%
Absorption .....	1W @ 230V
Contact Flow .....	10A 250V resistive
Connectable probes .....	ST300-ST320-ST400-ST450-ST500
Temperature range .....	from 5 ° C to 35 °
Maximum distance between probes and control unit .....	150 m
Section of the connection cables to the probes .....	1 mm <sup>2</sup>
Operating temp .:	0 ° C .. 50 ° C
Storage temp .:	- 10 ° C .. + 60 ° C
Humidity limits:	90% RH non condensing
Electromagnetic Compatibility "CE" .....	Reference legislation
Degree of protection, .....	IP20 in the air
Omega DIN EN 50092 3-module bar dimensions .....	52x90x52
Mounting: .....	Electrical cabinet
Warranty .....	Three Years

## Measurements

Rail DIN/Omega 3 modules EN 50092



## Components and controls



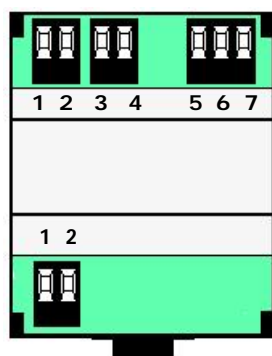
- 1) LED indicate device on, power on.
- 2) TEMPERATURE LED. This LED lights up the instant the probe drops below the set temperature, and turns off when the temperature drops below the set temperature.
- 3) Temperature regulation ambinte
- 4) PROBE terminal block. Connection of the remote temperature room probe.
- 5) Terminal block, for 230 VAC 50 Hz mains connection.
- 6) Terminal block, for 12V network connection both in alternating and direct current.
- 7) Terminal block, for connecting the equipment to be controlled.

## Electrical connections



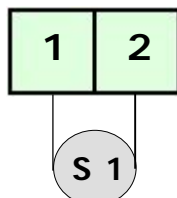
### WARNING

Before connecting to the mains power, ensure the voltage is correct. Carefully follow the instructions and the connections according to Regulations in force, keeping in mind that the signal cables should be laid separate from the power cables. An automatic cut-off switch (appropriately identified as device sectioning of the detector) should be incorporated in the electrical system, adequately located and easily accessible

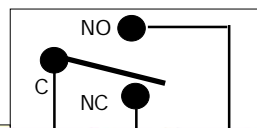


### ATTENTION !!

The relays schematized are free voltage with a capacity of 10 A resistive.



1	2	3	4	5	6	7
Power supply 230 V. ca		Power supply 12 V. cc/ca		connection Auxiliary		



Connection of the bottom terminal:  
the probe can be reversed in polarity.  
Max distance 150 m, with a minimum diameter of 1mmq

## Before calling a technician check...

**If the appliance does not turn on:** Check that the 230 V cables have been connected properly to poles 1 and 2 of the terminal block, check that there is mains voltage, or if it is powered at low voltage, check at the ends of terminal block 3 and

**The thermostat works well but cannot control the users:**  
Verify that all connections are correct.  
Recall that the relays are free of voltage.  
Check that the Resistive values are correct, see the table opposite.

If other problems arise, a specialised and/or authorised technician and/or the Distributor of **BEINAT S.r.l.** should be contacted directly.

### SENSORS

#### Conversion from temperature to ohmic value of the probes

Temp	Values Resistive	Temp	Values Resistive
0°C	155.820	60°C	11.296
10°C	94.523	70°C	7.865
30°C	37.704	80°C	5.573
40°C	24.695	95°C	3.427
50°C	16.533	100°C	2.936

**INSURANCE.** This device is insured by the SOCIETÀ REALE MUTUA for the PRODUCT'S GENERAL LIABILITY up to a maximum of 1,500,000.00 EURO against damages caused by the device in case of failures in functioning.

**WARRANTY.** The warranty term is 3 years from manufacturing date, in agreement with the following conditions. The components acknowledged as faulty will be replaced free of charge, excluding the replacement of plastic or aluminium cases, bags, packing, batteries and technical reports.

The device must arrive free of shipment charges to **BEINAT S.r.l.**

Defects caused by unauthorized personnel tampering, incorrect installation and negligence resulting from phenomena outside normal functioning shall be excluded from the warranty.

**BEINAT S.r.l.** is not liable for possible damage, direct or indirect, to people, animals, or things; from product faults and from its enforced suspension of use.



**DISPOSAL OF OLD ELECTRICAL & ELECTRONIC EQUIPMENT.**

This symbol on the product or its packaging indicates that this product shall not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment, such as for example:

- sales points, in case you buy a new and similar product
- local collection points (waste collection center, local recycling center, etc.)

By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

**Attention:** in some countries of the European Union, the product is not included in the field of application of the National Law that applies the European Directive 2002/96/EC and therefore these countries have no obligation to carry out a separate collection at the "end of life" of the product.



**Thermostat TBO180**

*Lo styling è della b & b design*

Stamp and signature of the dealer

Date of purchase: .....

Serial number: .....

**Beinat S.r.l.** following the purpose of improving its products, reserves the right to change the technical, aesthetic and functional characteristics at any time and without giving any notice.

**BEINAT S.r.l.**

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