

DBTZ

Duct thermostats, IP65

Serie of duct thermostats IP65 for use in cooling, heating and ventilation systems.

- Wide setpoint range
- Adjustable or fixed hysteresis
- Protection class IP65
- Breaking capacity 15 A at 230 V AC
- 2-step design available

Function

The DBTZ electro-mechanical thermostats are constructed around a fluid-filled capillary bulb with 200 mm spring protection and sensor housing that transfers the changes in temperature to a micro-switch. The micro-switch is capable of breaking up to 15 A at 230 V AC.
It comes in a 1-step or 2-step model.

Features

HYSTERESIS

1-step models are available featuring either fixed or adjustable hysteresis.

2-step models have fixed hysteresis.

STEP DIFFERENTIAL

In the 2-step thermostats, the step differential can be adjusted 2...5 K.

SETPOINT ADJUSTMENT

The thermostat is available with a setpoint adjustment knob on the outside or under the cover. It is also possible to recalibrate the scale using the hexagonal nut under the knob.

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Technical data

Sensor element	Liquid-filled coiled copper bulb with 200 mm protection spring
Contacts	Dust-tight microswitches with SPDT contacts (heat/cool)
Breaking capacity	15 (8) A, 24...250 V AC
Ambient temperature	-35...+65 °C
Ambient humidity	10...90 % RH (non-condensing)
Insertion length	200 / Ø 21 mm
Storage temperature	-40...+70 °C
Storage humidity	< 95 % RH
Weight	690 g
Protection class	IP65
Isolation class	I

Material

Casing	Base in Bayblend®, cover in ABS

Models and accessories

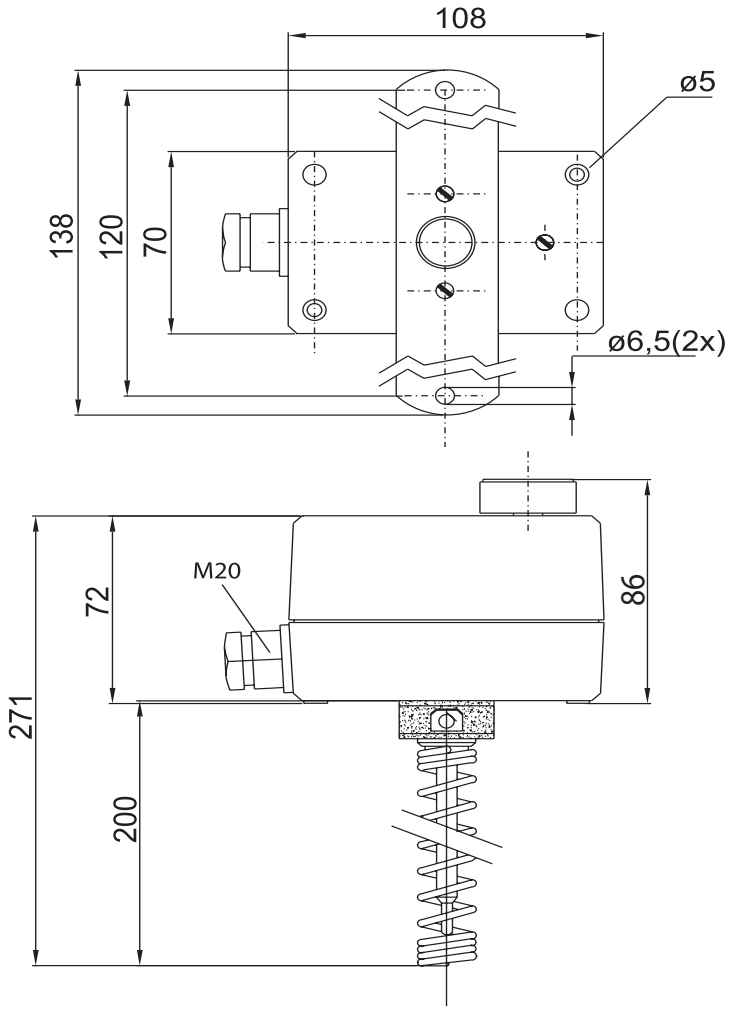
Article	**Temperature range**	**Steps**	**Hysteresis**	**Step differential**	**Max. bulb temp.**	**Hidden setpoint**
DBTZ-2U	-30...+30 °C	1	1 K	-	60 °C	x
DBTZ-7	0...60 °C	1	2...20 K	-	75 °C	-
DBTZ-7/2	0...60 °C	2	1 K	2...5 K	75 °C	-
DBTZ-8	0...60 °C	1	1 K	-	75 °C	-
DBTZ-12U	50...120 °C	1	Maximum manual reset	-	140 °C	x
	Description					
DBZ-25	Protection spring and mounting bracket (factory-mounted, supplied with above models)					

CE

Low Voltage Directive (LVD): This product conforms to the requirements of the European Low Voltage Directive (LVD) 2014/35/EU through product standards EN 60335-1.

RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council through standard EN 50581:2012.

Dimensions

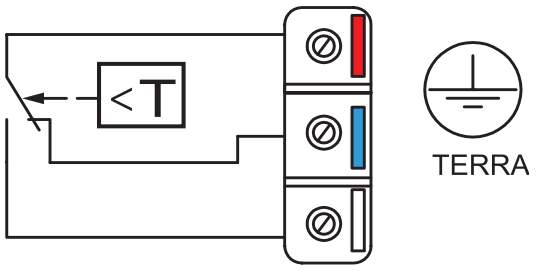


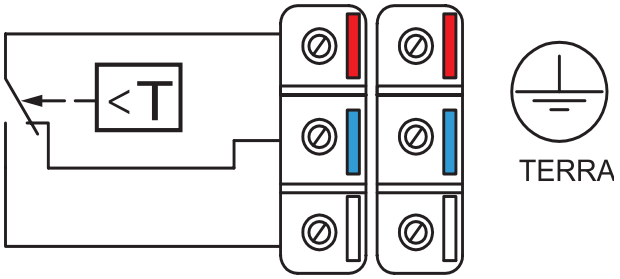
Measurements in mm

Wiring

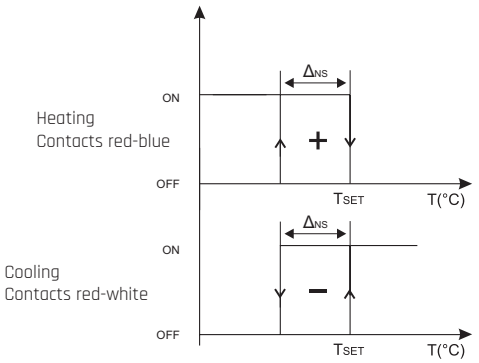
1-step model
Heating: Connect to the red and blue terminal. The contact will open when the temperature rises.
Cooling: Connect to the red and white terminal. The contact will open when the temperature drops.

2-steps models
Heating: Connect to the red and blue terminal. The contact will open when the temperature rises. The step 2 contact will open first followed by the step 1 contact.
Cooling: Connect to the red and white terminal. The contact will open when the temperature drops. The step 2 contact will open first when the temperature drops, followed by the step 1 contact.



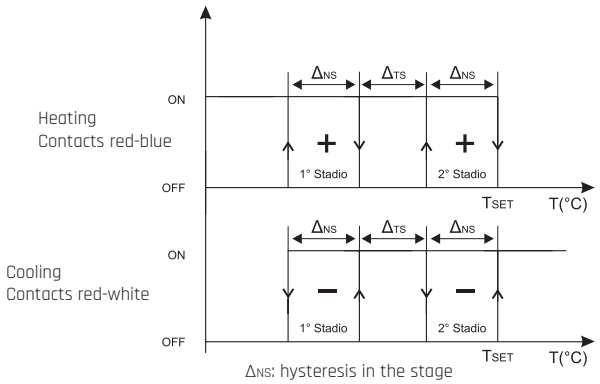


Logic activation single-stage models



ΔNS: hysteresis in the stage
TSET: setting setpoint
ON: closed contact
OFF: open contact

Logic activation two-stage models



ΔNS: hysteresis in the stage
ΔTS: step differential
TSET: setting setpoint
ON: closed contact
OFF: open contact

Documentation

Document	Description
Instruction DBET_inst_it_en	Instructions for installation

The product documentation can be downloaded from www.industrietechnik.it