



## TV

Immersion thermostat, IP54

*Serie of immersion thermostats for temperature control in systems for heating, cooling and air conditioning, boilers and heaters.*

- Hidden setpoint screw with wide range
- Well suited for use in heavily polluted or industrial applications
- Fixed hysteresis
- Protection class IP54
- Breaking capacity 16 A a 250 V AC

## Function

The TV electro-mechanical thermostats are constructed around a fluid-filled capillary tube and sensor housing that transfers the changes in temperature to a micro-switch. The micro-switch is capable of breaking up to 16 A a 250 V AC.

TV is intended for use in temperature control in boilers and heaters.

The thermostat is delivered with an immersion well (DBZ-30/14) for easy mounting and commissioning.

## Features

### SETPOINT ADJUSTMENT

The thermostat is available with a setpoint adjustment knob on the outside or under the cover.

### MAIN OFFICE BRESSANONE

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## Technical data

<b>Sensor element</b>	Copper bulb with 120mm brass pocket (on request with 200 mm length)
<b>Contacts</b>	Dust-tight microswitches with SPDT contacts (heat/cool)
<b>Breaking capacity</b>	With SPDT contact: NC 250 V AC 16 (6) A / NO 250 V AC 6 (4) manual maximum reset: NC 250 V AC 16 (2,5) A / NO 250 V AC 0,5 A
<b>Ambient temperatura</b>	-35...+65 °C
<b>Ambient humidity</b>	10...90 % RH (non-condensing)
<b>Storage temperature</b>	-20...+70 °C
<b>Storage humidity</b>	< 95 % RH
<b>Casing</b>	Base in Bayblend®, cover in ABS (2 stage models: sealed ABS)
<b>Weight</b>	one-stage: 440g two-stage: 560g
<b>Protection class</b>	IP54
<b>Isolation cla</b>	I

## Models and accessories

Article	Temp. range 1	Temp. range 2	Hysteresis	Step diff.	Max. bulb temperature	Function	Hidden setpoint
TV090	0...90 °C	-	4±1 K	-	120 °C	With SPDT contact	-
TV090U	0...90 °C	-	4±1 K	-	120 °C	With SPDT contact	X
TVR6585	65...85 °C	-	20±5 K	-	125 °C	Maximum manual reset	-
TVR90110	90...110 °C	-	20±5 K	-	125 °C	Maximum manual reset	-
TVR09090U	0...90 °C	0...90 °C	4±1 K	4±1 K	120 °C	With SPDT contact	X
TV090UR85	0...90 °C	65...85 °C	4±1 K	20±5 K	120 °C	Maximum manual reset with SPDT contacts	-
<b>Description</b>							
DBZ-30/14	Brass pocket 120 mm, Øexternal 8mm, Øinternal 7mm, connection R 1/2"						
DBZ-40/14	Brass pocket 108 mm, Øexternal 16mm, Øinternal 15mm, connection R 1/2"						
DBZ-31/14	Stainless steel AISI 304 pocket 120mm, Øexternal 9mm, Øinternal 7mm, connection R 1/2"						
DBZ-41/14	Stainless steel AISI 304 pocket 120mm, Øexternal 16mm, Øinternal 15mm, connection R 1/2"						

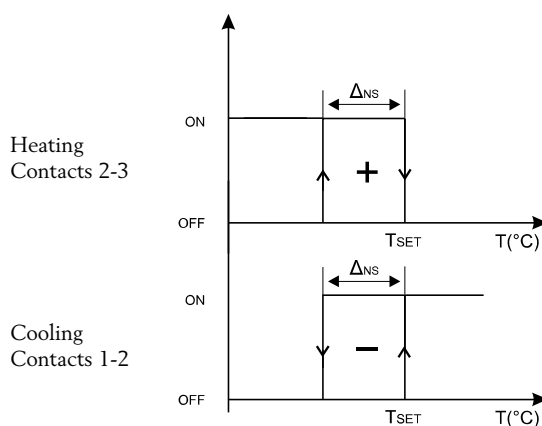
## CE

**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.

## Activation logic

Valid only for TR function:



Δ<sub>NS</sub>: Hysteresis  
T<sub>SET</sub>: setting setpoint  
ON: closed contact  
OFF: open contact

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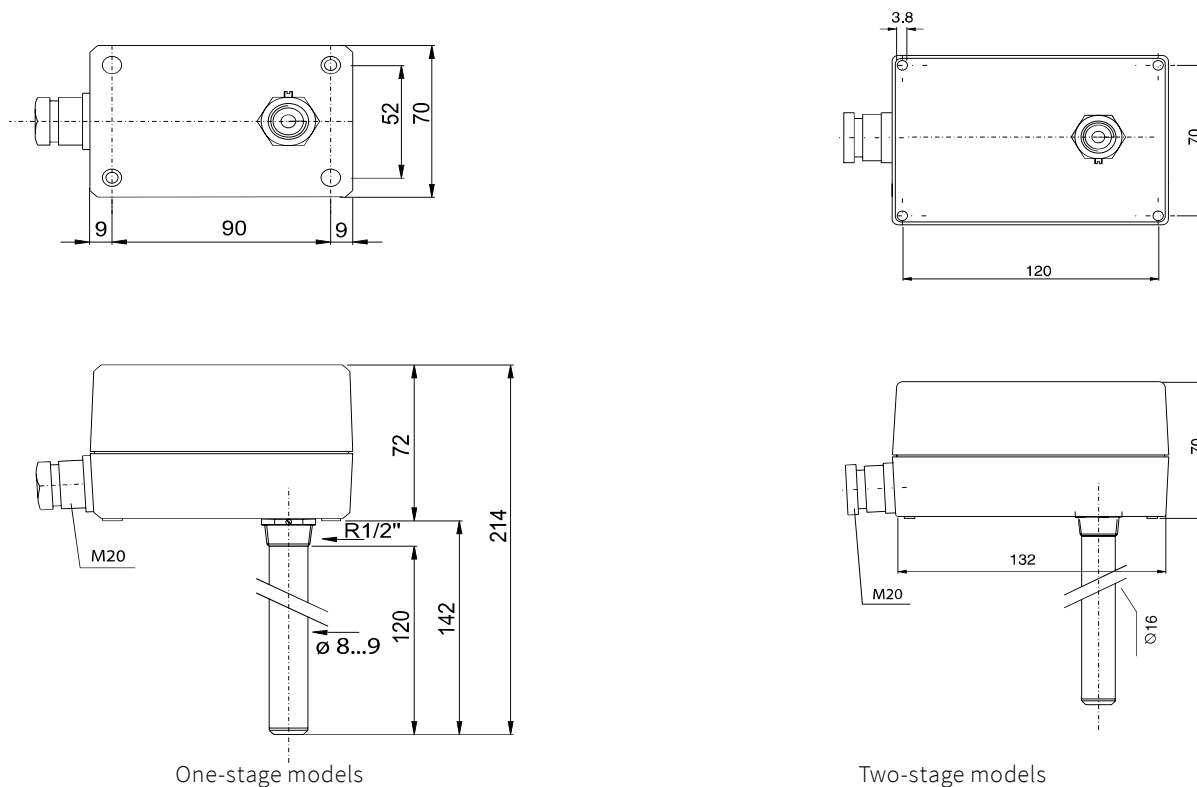
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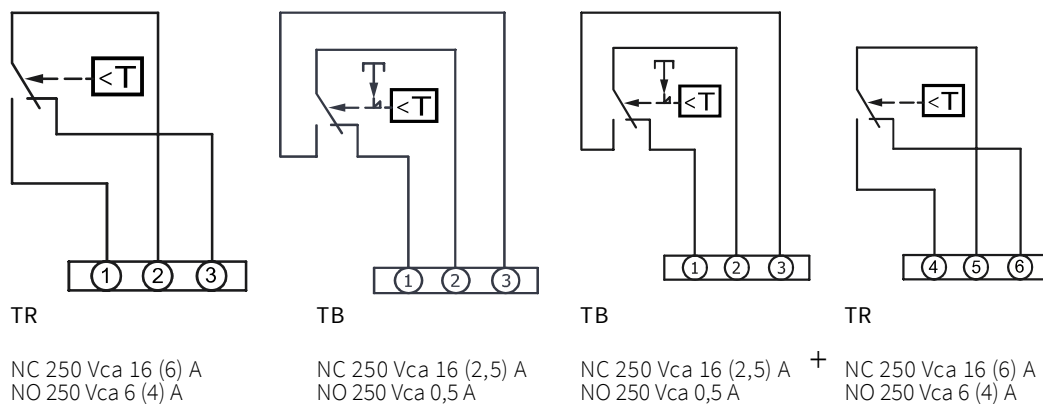
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## Dimensions



## Wiring



TR= with SPDT contact  
TB= manual maximum reset

## Documentation

Document	Description
Instructions TV_inst_it_en	Instructions for installation

The product documentation can be downloaded from [www.industrietechnik.it](http://www.industrietechnik.it)

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