

# Temperature switch

## Model TSM-550

WIKA data sheet TSM-550

### Applications

- Pumps, filters
- Lubrication system, hydraulic system
- HVAC
- Circuit breakers
- Turbines

### Special features

- Wide adjustable range
- Adjustable on-off differential
- Sturdy snap action switch
- Repeatability  $\pm 1\%$
- Weatherproof to IP67

### Description

The TSM-550 is used in industrial control, monitoring and alarm applications.

The switch point can be specified by the customer on site.

The instrument can switch electrical loads of up to AC 230V, 10A.

The TSM-550 temperature switch offers many application possibilities with non-corrosive media.



Temperature switch, model TSM-550

## Standard version

### Switch enclosure

Cover: ABS Plastic

Housing: DMC

### Repeatability

±1 % of full scale value

### Permissible ambient temperature

-40 °C ... +70 °C

### Permissible medium temperature

Refer range table

### Measuring system

Vapor filled thermal system with Phosphor bronze /

SS bellows

### Wetted parts

■ Copper bulb (standard)

■ SS bulb (optional)

### Range

Refer ordering matrix

### Switch contacts

One SPDT contact system

### On-off differential

Adjustable

### Electrical rating

#### One SPDT contact system

■ AC-1: 10A, 230V 50/60 Hz

■ AC-15: 4A, 230V 50/60 Hz

■ DC-13: 12W 230V

### Electrical entry

1/2" NPT(F)

### Ingress protection

IP67

### Mounting

Wall, panel

### Weight

Approx. 700 grams

## Ordering matrix

Range code	Range in °C	Capillary Length Meters (M)	Adjustable differential				Maximum working temperature in deg C
			Contact system / S type microswitch		D type microswitch		
			At min. temp	At max. temp	At min. temp	At max. temp	
T1	25 ... 90	3, 5, 8	2.4 ... 10	3.5 ... 20	5.5 ... 11	7 ... 22	300
T2	70 ... 150	3, 5, 8	6 ... 25	1.8 ... 6	12 ... 28	4 ... 6	215
T3	120 ... 215	3, 5, 8	7 ... 30	1.8 ... 9	14 ... 32	4 ... 9	260
T4	150 ... 250	3, 5, 8	6.5 ... 30	1.8 ... 9	13 ... 32	4 ... 9	300
T5	200 ... 300	3, 5, 8	5 ... 25	2.5 ... 10	10 ... 30	5 ... 12	350

★ In range 120 ... 215°C and 150 ... 250°C Capillary length 3 & 8 are non-standard thermal system. Available only on extended delivery basis. 10 & 12 Meters long thermal systems are available on request. Contact sales for price and delivery

## Ordering matrix continued

### Sensing element

Tin plated copper bulb and copper capillary with stainless steel armour on capillary

### Capillary length

- 3** 3 meters
- 5** 5 meters
- 8** 8 meters
- S** Special

### Bulb and capillary material

- C** Copper
- S** 304 SS

### Contact version

- C** One SPDT contact system.
- S** One SPDT microswitch
  - 15A Res. 125/250V AC
  - 15A Ind. 125/250V AC
  - 0.5A Res.125V / 0.25A 250V DC
  - 6A Ind. 30V / 0.05A 125V / 0.03A 250V DC
- D** DPDT microswitch
  - 10A 125/250V AC, 2A 480V AC
  - 0.25A 250V DC

### Switch enclosure

- D** ABS, plastic cover with polyester housing, weatherproof to IP67 as per IS/IEC:60529-2001 (standard)
- A** Aluminium, powder coated cover with Die cast aluminium housing, weatherproof to IP67 as per IS/IEC:60529-2001

### Thermowell

- WO** Without thermowell
- B1** 3/4" NPT Brass bulb pocket 111 mm length
- B2** 1/2" BSP Brass bulb pocket 111 mm length
- S1** 3/4" NPT 304 SS bulb pocket 111 mm length
- S2** 1/2" BSP 304 SS bulb pocket 111 mm length
- TW** Non standard thermowell

## Bulb details

Rang code	Range in °C	Capillary Length Meters (M)	Bulb dia	Blub length	
				Copper	SS
T1	25 ... 90	3, 5, 8	9.5	80	69
T2	70 ... 150	3, 5, 8	9.5	80	69
T3	120 ... 215	3, 5, 8	9.5	110	102
T4	150 ... 250	3, 5, 8	9.5	110	102
T5	200 ... 300	3, 5, 8	11	Not available	102

### Model Number to be ordered as below

Model	Range	Capillary length	Bulb & Capillary Material	Contact version	Switch enclosure	Thermowell
-------	-------	------------------	---------------------------	-----------------	------------------	------------

### Example

Model: TSM-550

Range: 25 ... 90°C

Capillary length: 5 meters

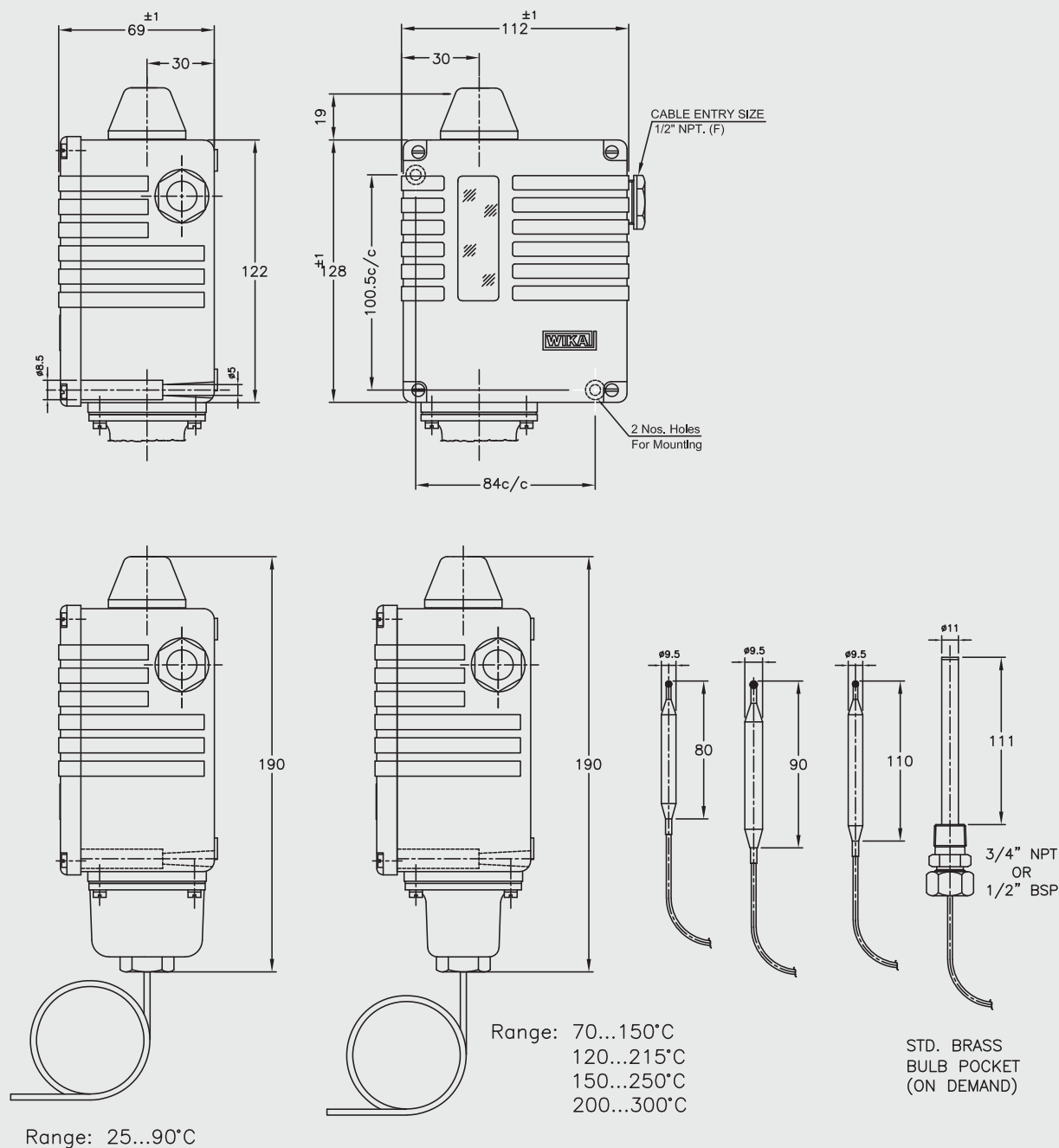
Bulb and capillary material: 304 SS

Contact version: One SPDT contact system

Switch enclosure: ABS, plastic cover with polyester housing, weatherproof to IP67 as per IS/IEC 60529-2001 (standard)

Thermowell: 1/2" BSP 304 SS bulb pocket 111mm length.

### Dimensions in mm



## Ordering information

Model / Range / Capillary length / Contact version / Switch enclosure

© 2021 WIKA Instruments India Pvt. Ltd., all rights reserved.  
The specifications given in this document represent the state of engineering at the time of publishing.  
We reserve the right to make modifications to the specifications and materials.



**Wika Instruments India Pvt. Ltd.**  
Plot no B-20 and B-21, Industrial area  
Site-3, Meerut Road  
Ghaziabad 201003, Uttar Pradesh  
Tel. +91 0120-2712134  
sales@wika.co.in  
www.wika.co.in