

Shanghai

YuanYi

Control

Factory

 $\mathsf{Co}$  . ,  $\mathsf{Ltd}$ 

Model: WTZK-50-C

# **Marine Pressure Temperature Switches**

**Model: WTZK-50** 

**Pressure Temperature Switches** 

The sensor is temperature package with capillary. It is suitable for gas which has no corrosive effect on brass and cooper alloy, and steam gas or liquid medium. The set point is adjustable, and the range is from -60 to  $170^{\circ}$ C.

### WTZK-50-C

The housing is Aluminum, water-proof type.

The switch is satisfied for marine.

WTZK-50

**Vibrations** 

The housing is Phenol viper pressure plastic powder, general type.



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Ambient temperature Specification Table
WTZK-50-C IP44

WTZK-50 IP40

WTZK-50-C  $2\sim$ 25Hz 1.6mm

 $25 \sim 100 \text{Hz} \ 40 \text{m/s}^2$ 

WTZK-50  $10\sim60$ Hz 0.075m/s<sup>2</sup>

 $60\sim 150 \text{Hz} \ 10 \text{m/s}^2$ 

Electrical rating AC380V 3A(Resistance)

DC220V 2.5A(Resistance)

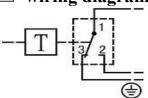
**Repeatability error** Specification Table

WTZK-50-C The 22.5 ° tilt around, able to work

Mounting position WTZK-50 The 10 ° tilt around, able to work

(The temperature package No.5-10 list below of all specification should place on the same level with housing Inferior in order to reduce Additional error by plume.)

 $\square$  wiring diagram



SPDT Micro Switch working state:

Terminals 1-2 open when temperature T rise to the upper limit Terminals 1-3 open when temperature T fall to the lower limit

**☐** Specification

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No.	Adjustable range °C	Switching difference	Setting error ±°C	Repeatability error °C	Max. allowable temperature °C	Capillary length m	Weight Kg
1	10~40	3~5	2	2	55	1, 3, 5, 8,	1.25~1.85
2	40~80				95 115 135		
3	60~100						
4	80~120						
5	110~150		3	3	165	103 12	
6	130~170				185		
7	160~200				215		

# $\sqcup$ Debugging

### **Example:**

Choose a temperature switch of  $40 \sim 80$  °C range, then keep the temperature of housing  $66 \sim 70$  °C around. As follows: Debugging after installation is over, keep the temperature 66 °C, then Remove the lock nut rotating rod adjustment to adjust the set point. When whirling counterclockwise the micro-switch switching, that's the set point.

If precision needs less level on the set point, you can debug according to the Scale ruler of switch or the Thermometer on the system. If needs high level, high precision thermometer indication should be used to refer to debug.

The switching difference is  $4^{\circ}$ C, and the differential knob should be adjusted to rise the temperature to  $70^{\circ}$ C which makes the micro-switch shift. When whirling counterclockwise the switch shift, the point is what the difference is. Paint seal.

# Dimensional drawing Units: mm

# ☐ Mounting

Open the Table Cover, then install the switch on the dashboard vertically. Don't slide or butt dial arm by hand or tools to pretend changing in performance.

Make the cable through the gaskets and seals, Wiring according to wiring diagram. Tighten the nut and cover the control shell.

Remove the lock nut, Rotating rod adjustment, to make the pointer refer to the set point which the temperature needed to control, then Tight screw locking nut.

Rotating switch difference knob to get needed switch difference.

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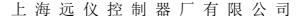
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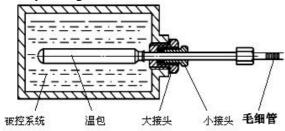
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The temperature package and Capillary: the temperature package should be immersed in charged medium fully, Its surrounding medium should be maintained uniform temperature and flow. The Bending Radius of Capillary is no less than 50mm, and fix the capillary on the dashboard with clamp every 300mm. NO.1-4 the ambient temperature the capillary crosses should be lower than set temperature 3 °C above; NO.6-7 The ambient temperature should be lower than set temperature below 3 °C; NO.9-10 The ambient temperature should be higher than 5 °C, Beware of mechanical collisions during installation to make Capillary pressure pass flat rolling. Place rings in large joints plane Or threaded. Tightened up and charged with the system interface and regulate temperature and package location, in the large and small joints between the gasket tightened after the sealed materials, and to ensure that sealed.

Recheck whether the installation is fine, fix the table cover, and connect to the power. According to use, a regular basis proofing is needed.



## □ Notice

The set point which the pointer refers to is lower range, the adjustable range is the lower range.

Open the switch knob, please don't Rotating the internal screw or fiddle with the internal parts

The number of difference button only indicates the size of difference not actual number, that is read from the standard table.

When making the temperature not exceed a given temperature value(the upper range), the pointer should be referred to the point lower a difference point than given one. After the adjustment, don't be allowed to rotating knob switch difference.

The switch difference range on the table is offered minimum range, which is a bit bigger than list actually.

The Capillary length should be indicated on the contract when ordering.

Corrosive gases should not exist around.

The temperature can't exceed max. allowable temperature on the table when adjusting.

Durability of the product is 18 months since the date of factory. During the durability, if the product has quality problems, we will repair or replace in time.

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