

## TTM2D TTW2D

### Immersion thermostats

with adjustable switching differential,  
for control and monitoring of CHW and LTHW



Immersion thermostats for the control and monitoring of chilled water (CHW) or low temperature hot water (LTHW) temperatures

- Switch-over contact AC 250 V / 10(2) A
- Measuring range -10 ... 80 °C or 20 ...150 °C
- Pocket length 150 mm
- Adjustable switching differential

#### Use

The TTM2D and TTW2D immersion thermostats are typically used for monitoring cold and hot water temperatures in pipe systems. When the water temperature rises to the selected setpoint, the thermostat switches over.

#### Type summary

2 types are available. They differ in the temperature range and in the pocket length.

<u>Type</u>	<u>Pocket length</u>	<u>Measuring range</u>	<u>Weight</u>
<b>TTM2D</b>	150 mm	-10 ... 80 °C	0.53 kg
<b>TTW2D</b>	150 mm	20 ...150 °C	0.52 kg

#### Ordering

The immersion thermostats and, if required, stainless steel pockets (instead of the standard brass pockets) must be ordered separately.

When placing an order, please specify the quantity, product description and type code.

*Example:*

**1 immersion thermostat TTW2D and 1 pocket Z619**

#### Technical design

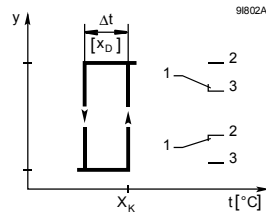
The sensor in the immersion thermostat TTM2D or TTW2D... operates according to liquid expansion principles. When the water temperature rises to the preselected setpoint, the thermostat switches over.

#### Adjustments

To adjust the two settings, remove the housing cover.

	Switching differential $\Delta t$			Setpoint Xk
TTM2D	2 ...12 K			-10 ... 80 °C
TTW2D	2 ...12 K			20 ... 150 °C

## Operating diagram



## Mechanical design

The housing and cover of the immersion thermostat are made of plastic. The removable cover is fixed by 2 screws. The standard pockets are made of nickel-plated bronze and may, if required, be replaced by stainless steel pockets (see 'Accessories').

## Accessories

Pockets made of stainless steel (V4A), may be used as an alternative to the standard brass pockets. The Z619 pockets are threaded with G $\frac{1}{2}$  to ISO 228/1 and are suitable for nominal system pressures up to PN4.

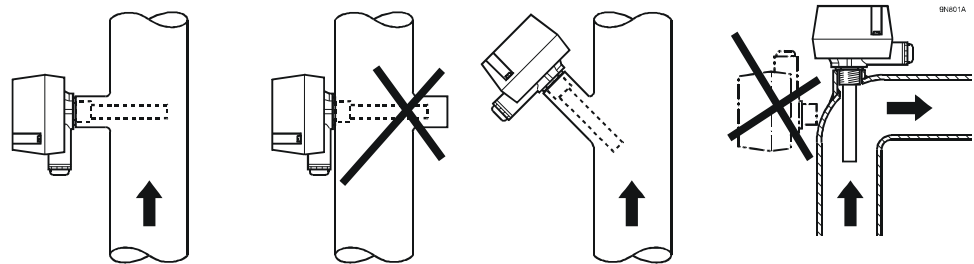
Mounting instructions are enclosed with the accessories (Ref. 35195).

**Z619** pocket for TTM2D and TTW2D length 150 mm

## Mounting notes

Mounting instructions (Ref. 35199) are enclosed with the thermostats.

The immersion thermostats may be removed from the pocket by loosening a clamping screw. They may only be used with the pocket supplied. With high pressure requirements (> PN16) the standard pocket must be replaced by a Z619 pocket (see 'Accessories'). If it is used as a pipe thermostat, the immersion thermostat should, wherever possible, be mounted in a pipe elbow, and must be aligned against the flow.



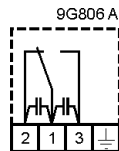
## Technical data

Output	SPDT voltage-free	
Contact rating	AC 250 V Max. 10 A resistive Max. 2 A inductive, $\cos \varphi > 0.2$	
Voltage against earth	Max. AC 250 V	
Setpoint Xk	-10 ... 80 °C / 20 ...150 °C, see 'Type summary'	
Switching differential $\Delta t$	2 ...12 K, adjustable	
Nominal pressure	with standard pocket	PN16
	with standard steel pocket	PN40
Pocket thread	G1/2 to ISO 228/1	
Mounting position	any	
Materials:		
Housing and cover	Plastic	
Standard-pocket	Nickel-plated brass	
Optional pocket Z619	Stainless steel V4A	
Cable entry	Gland PG11	
Protection class	I (VDE *)	
Protection standard	IP54 to IEC529	
Ambient temperature:		
- Housing	Max 100 °C	
- Sensor	Max 10 % above measured value	
Weight (incl. packaging)	see 'Type summary'	
Conformity	CE requirements	
* VDE = The German Association of Electrical Engineers		

## Connection terminals

Contact position 'Cold'

TTM2D  
TTW2D

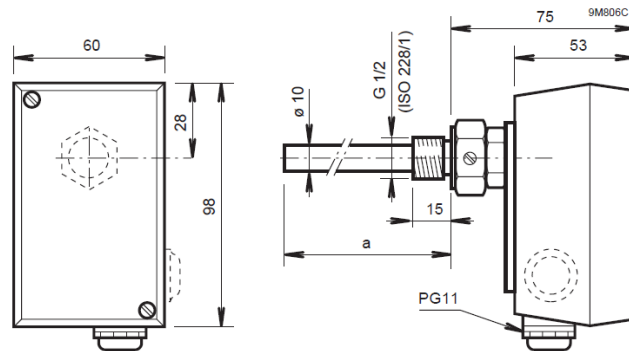


### Caution

Observe the technical data for the switching contacts:  
AC 250 V / 10(2) A

## Dimensions

All dimensions in mm



Outside thread G $\frac{1}{2}$   
to ISO 228/1

### Type

TTM2D, TTW2D

### Mounting depth a

150 mm

