



## Immersion temperature sensor

**FT-TP/100  
FT-TP/400  
FT-TP/100-200**

for HVAC systems

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**Immersion temperature sensor for heating, ventilation and air conditioning systems**

- For use with controllers with Pt100 sensor inputs
- For use in industrial areas that require fast sensor reaction
- Specially suited for harsh ambient conditions requiring a high level of IP protection

### Use

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The FT-TP/... immersion temperature sensors can be used in pipe systems for HVAC systems. They are suitable for high accuracy temperature measurement over a wide range with controllers equipped with a Pt100 sensor input.

## Type summary

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2 types are available, distinguished only by the length of the probe.

**FT-TP/100** Immersion temperature sensor length 100 mm  
**FT-TP/400** Immersion temperature sensor length 400 mm  
**FT-TP/100-200** Immersion temperature sensor length 100 mm

## Ordering

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

Example:

**1 immersion temperature sensor FT-TP/400**

## Technical design

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The Pt100 temperature sensor is fitted with a platinum measuring element with a positive temperature coefficient (PTC). The measured-signal/temperature relationship is linear. See data sheet 1714<sup>\*)</sup> for technical information on the Pt100 sensor element.

The sensor FT-TP/... comprises a probe with a connecting head and the inserted Pt100 element. To improve the response time, the probe is filled with a special resin. The cable is connected via a PG16 cable gland.

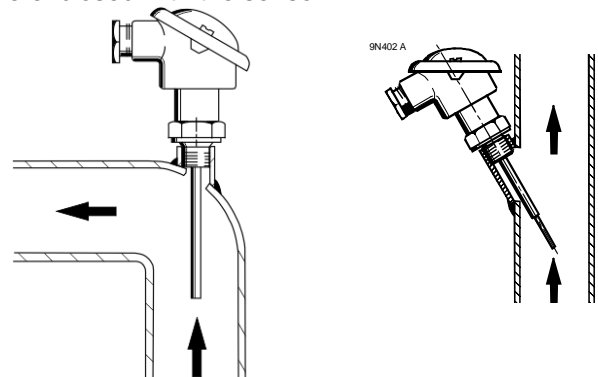
<sup>\*)</sup> The documents can be downloaded from <http://siemens.com/bt/download>.

## Mounting notes

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Mounting instructions M1797<sup>\*)</sup> are enclosed with the sensor.

Where possible the immersion sensor should be mounted in a pipe bend with the sensor probe against the direction of flow. It should be located in a position where the medium is well mixed.



<sup>\*)</sup> The documents can be downloaded from <http://siemens.com/bt/download>.

## Disposal

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The device is considered electrical and electronic equipment for disposal in terms of the applicable European Directive and may not be disposed of as domestic garbage.

- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

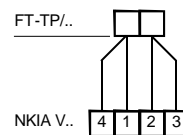
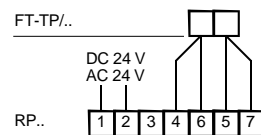
## Technical data

Measuring range	
FT-TP/100, FT-TP/400	-70...+260 °C
FT-TP/100-200	-200...+600 °C
Measuring element	Pt100 to IEC751, Class B
Response time (0.632 value time)	to VDI/VDE 3522
in air moving at 1 m/s	<100 s
in water moving at 0.4 m/s	<5 s
Nominal pressure	PN 40
Suitable media	Gas or liquid
Material	Cast aluminium
Probe	Stainless steel V4A (1.4571)
Electrical connection	2 screw terminals for max. 2.5 mm <sup>2</sup>
Cable gland	PG16
Temperature range	Max. temperature at connecting head 100 °C
EU conformity (CE)	A5W00040799 *)
Protection degree of housing	IP65 according to EN 60529
Protection class	III according to EN 60730-1
Weight (incl. packaging)	FT-TP/100 = 0.47 kg / FT-TP/400 = 0.54 kg FT-TP/100-200 = 0.42 kg
Connecting head	Shape B to DIN 43729
Sensor probe	
Immersed length	FT-TP/100 = 100 mm / FT-TP/400 = 400 mm / FT-TP/100-200 = 100 mm
Probe diameter	6 mm
Wall thickness	Approx. 0.5 mm
Screw thread	G1/2 to ISO228/1

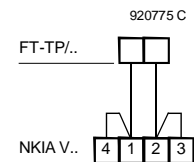
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## Connection diagrams

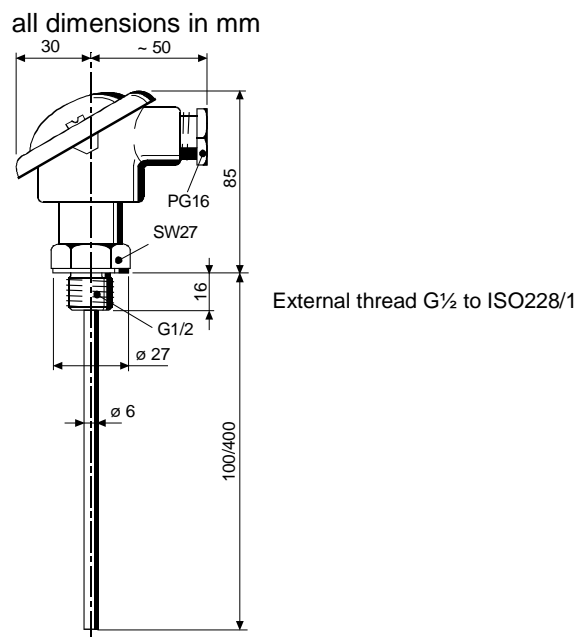
### Four-wire connections



### Two-wire connections



## Dimensions



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