Immersion temperature sensor

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

for HVAC systems

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

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

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

When placing an order, please specify the quantity, product description and type code.
Example:
1 immersion temperature sensor FT-TP/400

Technical design

The Pt100 temperature sensor is fitted with a platinium measuring element with a positive temperature coefficient (PTC). The measured-signal/temperature relationship is linear. See data sheet 1714[*] for technical information on the Pt100 sensor element.
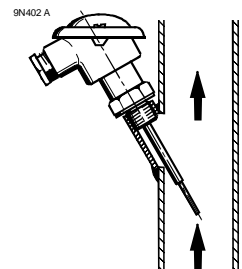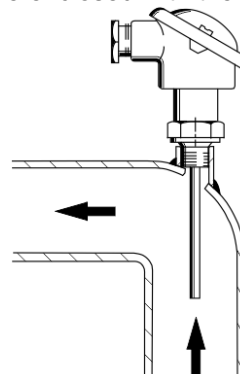The sensor FT-TP/... comprises a probe with a connecting head and the inserted Pt100 element. To improve the response time, the probe is filled with a special resin. The cable is connected via a PG16 cable gland.

[*] The documents can be downloaded from http://siemens.com/bt/download.

Mounting notes

Mounting instructions M1797[*] 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.

[*] The documents can be downloaded from http://siemens.com/bt/download.

Disposal

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.
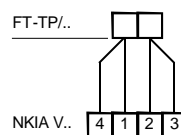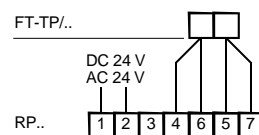- Comply with all local and currently applicable laws and regulations.

Technical data

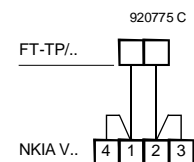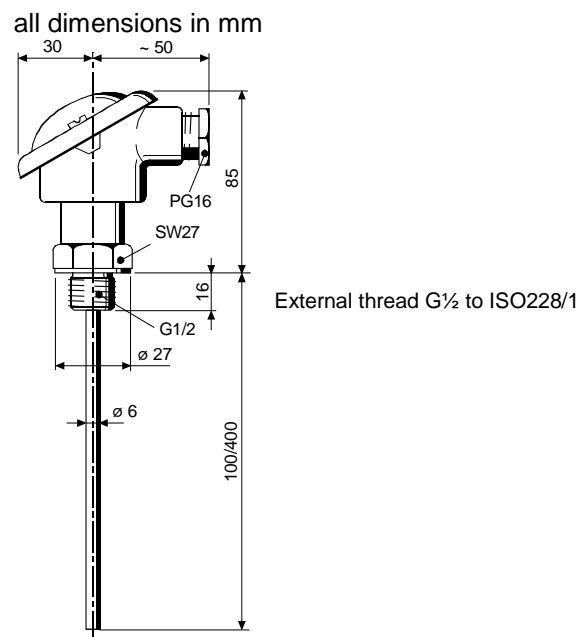|	
Measuring range	
FT-TP/100, FT-TP/400	-70…+260 °C
FT-TP/100-200	-200…+600 °C
Measuring element	Pt100 to IEC751, Class B
Response time (0.632 value time)	to VDI/VDE 3522
in air moving at 1 m/s	<100 s
in water moving at 0.4 m/s	<5 s
Nominal pressure	PN 40
Suitable media	Gas or liquid
Material	Cast aluminium
Probe	Stainless steel V4A (1.4571)
Electrical connection	2 screw terminals for max. 2.5 mm^2
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

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

Connection diagrams

Four-wire connections

Two-wire connections

Dimensions

all dimensions in mm

External thread G½ to ISO228/1

30 | ~ 50 | 85 | PG16 | SW27 | 16 | G1/2 | ø 27 | ø 6 | 100/400

Siemens
Smart Infrastructure
Immersion temperature sensor FT-TP/100, FT-TP/400
CA1N1797E
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