

# Resistance Temperature Sensor WIT-S

As of 26-07-2013



The resistance temperature sensor WIT-S is designed for precise measurement of temperatures within a measuring range from -30 up to +80°C.

- Resistance temperature sensor with platinum element
- Measuring range from -30°C up to +80°C
- Accuracy classes A, 1/3 B, 1/10 B
- Sensor probes with closed or open tube ends

## Technical Description

Available are different accuracy classes and mounting options combined with different housings and connections, which are matched to the requirement profile.

The probe version allows different depths of immersion.

The straight thread version is more compact and robust.

## Specifications

### Sensor Type and Measuring Range

Pt100 Platinum Element, -30 to +80°C

### Accuracy

Class A, 1/3 class B or 1/10 B

### Response

Open sensor pipe T(99%) approx. 25 sec.

Closed sensor pipe: T(99%) approx. 40 sec.

### Temperature Conditions

Storage: -30 to +80 °C

Operation: -30 to +80 °C

The sensor end for a short time up to 150°C

### Media Compatibility

Open Sensor Pipe End: Air and non-corrosive gases

Closed Sensor Pipe End: Air and corrosive gases compatible with stainless steel and Teflon (probe version) res. epoxy resin (G1/2 thread version)

### Pressure Limits

Probe version: up to 6 bar

Thread version: up to 16 bar

### Enclosure

Material: stainless steel

Model	Immersion depth	Ø-probe	weight
Probe version	variable	2 or 3 mm	6...9 g
G1/2 a	30 mm	2 mm	87 g
G1/4 a	20 mm	1,6 mm	36 g

### Process Connections

Probe Version: Probe tube, optionally clamping fitting with thread

Thread Version: G1/4 or G1/2 a flat sealed

WIT-S in probe version, examples with clamp fittings (optional accessory)

### Electrical Output / Supply

Four wire technic for Pt100, current 1mA, signal 95-140mV

### Electrical Connections

M8x1 female connector 4-pin pressed-in

## Special Features

The probe version of WIT-S is available with a 50 mm or 100 mm long sensor tube. If necessary it can be fixed with a clamping thread for a variable depth of immersion.

All clamping fittings for thread and for probe version do necessarily require a flat sealing surface for proper assembly.

## Ordering Informations

Part No.: WIT-S-aabb-cc-ddeee-fggg

<b>aa</b>	<b>Sensor Type</b>
PT	Pt100 Platinum Element
<b>bb</b>	<b>Electrical Connection</b>
M8	M8x1 female connector 4-pin
<b>cc</b>	<b>Process Connection</b>
SO	Probe version
14	Thread version G1/4 a flat sealing
12	Thread version G1/2 a flat sealing
<b>dd</b>	<b>Tube Diameter</b>
16	1,6 mm
20	2 mm
30	3 mm
<b>eee</b>	<b>Tube Length / Immersion Depth</b>
020	20 mm
030	30 mm
050	50 mm
100	100 mm
250	250 mm
<b>f</b>	<b>Tube End</b>
O	Open sensor tube
G	Closed sensor tube
<b>ggg</b>	<b>Accuracy Class</b>
A01	Pt100 element class A (discontinued)
B03	Pt100 element 1/3 class B (new class AA)
B10	Pt 100 element 1/10 class B

### Types on stock

WIT-S-PTM8-SO-20050-GB03  
 WIT-S-PTM8-SO-30050-GB03  
 WIT-S-PTM8-SO-20100-GB03  
 WIT-S-PTM8-SO-30100-GB03  
 WIT-S-PTM8-12-16030-GB03  
 WIT-S-PTM8-14-16020-GB03

### Part No. Accessories

VT-020-G18 Clamping fitting 2 mm- G1/8 male thread  
 VT-020-G14 Clamping fitting 2 mm- G1/4 male thread  
 VT-020-G12 Clamping fitting 2 mm- G1/2 male thread  
 VT-030-G18 Clamping fitting 3 mm- G1/8 male thread  
 VT-030-G14 Clamping fitting 3 mm- G1/4 male thread  
 VT-030-G12 Clamping fitting 3 mm- G1/2 male thread  
 LTG-PTM8.. Wiring on request (length, connection..)