

T 5203 EN

Types 5204 to 5255 Temperature Sensors with Pt 100 resistors



Application

Sensors for measuring temperatures in HVAC systems and thermal plants

Special features

- Versions with Pt 100 resistors
- Basic values according to Class B of DIN EN 60751

Versions

- Screw-in sensor
- Duct sensor
- Outdoor sensor
- Room sensor
- With one or two resistors depending on the sensor type

Principle of operation

The temperature sensors are used to measure the temperature of media. The sensors can be immersed, mounted on pipelines or walls.

Installation

- Screw-in sensor
Screwed into the pipeline using a sensor pocket. Direct contact with the process medium.
- Duct sensor
Screwed in. Direct contact with the air flow being measured.
- Outdoor sensor
Mounted on a wall outdoors preferably in a shaded area
- Room sensor
Mounted on a wall indoors in a heat-controlled room

Temperature sensors can also be connected in two-wire or three-wire circuits. The connection and the line calibration need to be carried out according to the requirements of the connected device.

The connecting lines between the temperature sensor and controller must be routed separately from the mains power lines.

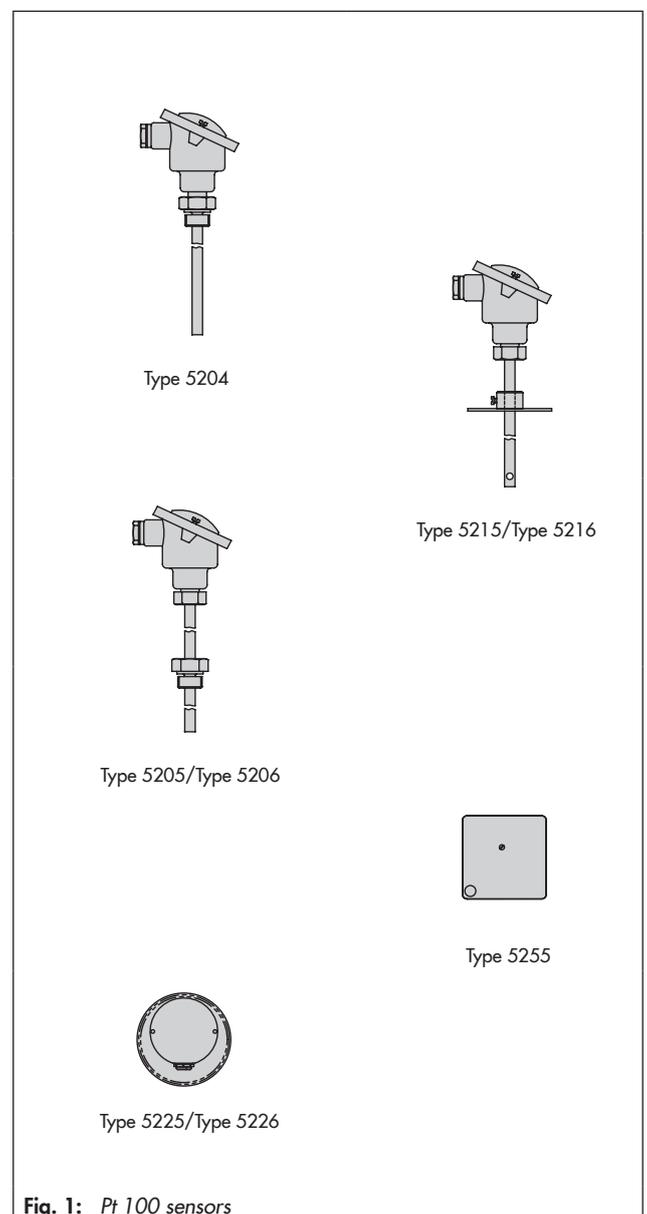
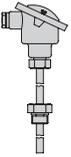
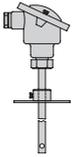


Fig. 1: Pt 100 sensors

Table 1: Technical data

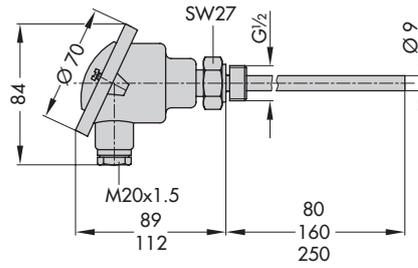
Type	5204			5205			5206			5215	5216	5225	5226	5255
	-21	-27	-26	-47	-46	-48	-47	-46	-48					
Style														
Screw-in sensor	•	•	•	•	•	•	•	•	•	•				
Duct sensor										•	•			
Outdoor sensor												•	•	
Room sensor														•
Temperature measuring range ¹⁾														
–35 to +200 °C										•	•			
–20 to +50 °C												•	•	•
–20 to +150 °C	•	•	•											
–60 to +400 °C				•	•	•	•	•	•					
Number of Pt 100 resistors	1	1	1	1	1	1	2	2	2	1	2	1	2	1
Sensor length mm	80	160	250	160	250	400	160	250	400	60 to 300		–	–	
Sensor shaft G ½ ²⁾ made of	1.4571	Brass		1.4571						Nickel-plated brass		–	–	
Weight kg	0.4		0.5	0.4	0.5	0.6	0.4	0.5	0.6	0.6		0.4		0.2
Pressure rating PN	40	16		40						–		–	–	
Permissible temperature ranges														
Process medium °C	–20 to +150			–60 to +400						–35 to +200		–	–	
Ambient °C	–40 to +100	–20 to +70		–20 to +70						–20 to +70		–35 to +85	–35 to +85	
Degree of protection acc. to EN 60529 IP	54			54						41		54		20
Preferable scope of application	Heating flow pipes, DHW heaters, service water, heating plants									Supply air, mixed air, exhaust air		Exterior walls of buildings		Recreation rooms and offices

¹⁾ Depends on connected device

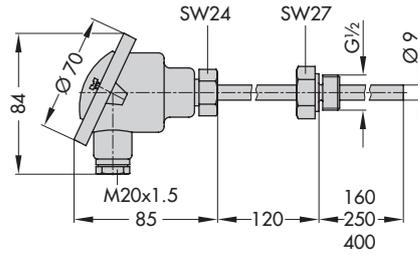
²⁾ Flange connection with duct sensors instead of G ½

Dimensions

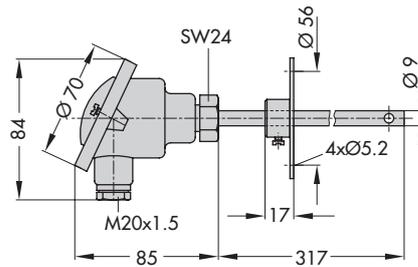
Type 5204 Screw-in Sensor



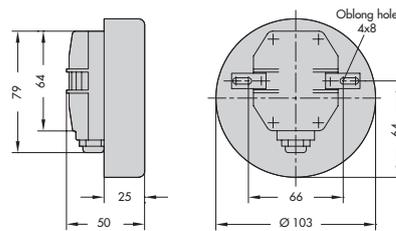
Types 5205 and 5206 Screw-in Sensors



Types 5215 and 5216 Duct Sensors



Types 5225 and 5226 Outdoor Sensors



Type 5255 Room Sensor

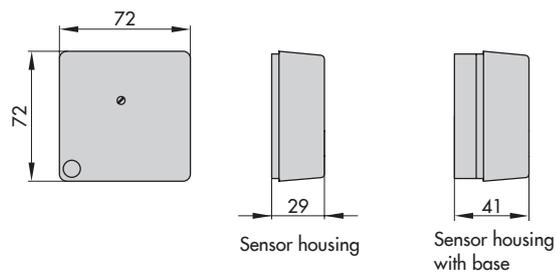


Fig. 2: Dimensions in mm

Disposal



SAMSON is a producer registered at the following European institution
▶ <https://www.ewrn.org/national-registers/national-registers>.
WEEE reg. no.:
DE 62194439/FR 025665

- Observe local, national and international refuse regulations.
- Do not dispose of components, lubricants and hazardous substances together with your other household waste.

i Note

We can provide you with a recycling passport according to PAS 1049 on request. Simply e-mail us at aftersaleservice@samsongroup.com giving details of your company address.

💡 Tip

On request, we can appoint a service provider to dismantle and recycle the product.

Ordering text

Type ... Temperature Sensor with Pt 100 resistor

Associated Information Sheet

- Sensors and thermostats ▶ **T 5200**