

Fast-response Temperature Sensors Types 5207-61/-64/-65



with Pt 1000 resistors

Application

Fast-responding temperature sensor for measuring rapid temperature changes in heat exchangers and domestic hot water circuits. Pt 1000 resistor.

Basic values conforming to Class B of DIN EN 60751.



Fast-responding temperature sensors are used in compact heat exchangers and domestic hot water generators which only have a fairly small mass with a low heat storage capacity. As a result, the temperature can change rapidly. Moreover, the temperature sensors are easy to install and do not need any calibration. The Types 5207-61/-64/-65 Temperature Sensors include the following features:

- Step response (refer to diagram on following page) featuring a response time τ of less than 1 second
- Minimum thermal resistance and low heat capacity
- No air space between measuring insert and immersion tube
- Without thermowell
- Length of immersion tube fixed for Type 5207-61
- Length of immersion tube variable for Types 5207-64/-65

Versions

Type 5207-61 (Fig. 1) · Fast-response temperature sensor; immersion sensor with Pt 1000 resistor; operating temperature range -50 to 180 °C, with immersion tube of 110 mm in length, 80 mm immersion depth

Type 5207-64 (Fig. 1) · Fast-response temperature sensor; immersion sensor with Pt 1000 resistor; operating temperature range -15 to 180 °C, with immersion tube of 170 mm in length, 40 to 100 mm immersion depth

Type 5207-65 (Fig. 1) · Fast-response temperature sensor; immersion sensor with Pt 1000 resistor; operating temperature range -15 to 180 °C, with immersion tube of 250 mm in length, 120 to 190 mm immersion depth

Ordering text

Types 5207-61/-64/-65 Fast-response Temperature Sensor



Fig. 1 · Type 5207-64 Temperature Sensor (top)/
Type 5207-61 (bottom)

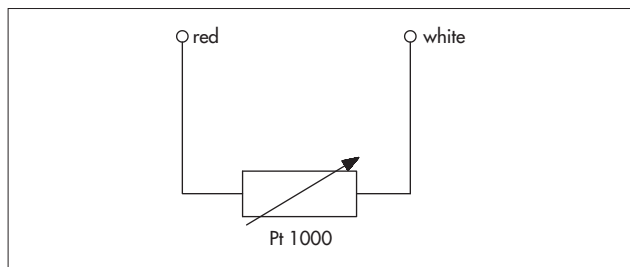
Table 1 · Technical data

Temperature sensor	Type	5207-61	5207-64	5207-65
Style		Immersion sensor	Immersion sensor with screw gland	
Number of resistors		1 Pt 1000 (DIN EN 60751 Class B)		
Range of application		-50 to +180 °C	-15 to +180 °C	-15 to +180 °C
Permissible temperature of medium		-50 to +180 °C	-15 to +180 °C	-15 to +180 °C
Permissible ambient temperature		-50 to +180 °C	-15 to +180 °C	-15 to +180 °C
Time constant τ		0.8 s	0.9 s	0.9 s
Nominal pressure		PN 40		
Degree of protection		IP 65		
Length of immersion tube	L	110 mm	170 mm	250 mm
Immersion depth	EL	80 mm fixed	40 to 100 mm	120 to 190 mm
Mechanical connection		Thread G 1/2	Screw gland G 1/2	
Electrical connection		Free cable end with wire ferrule		
Connecting cable length		2.5 m		
Weight		0.15 kg	0.21 kg	0.27 kg

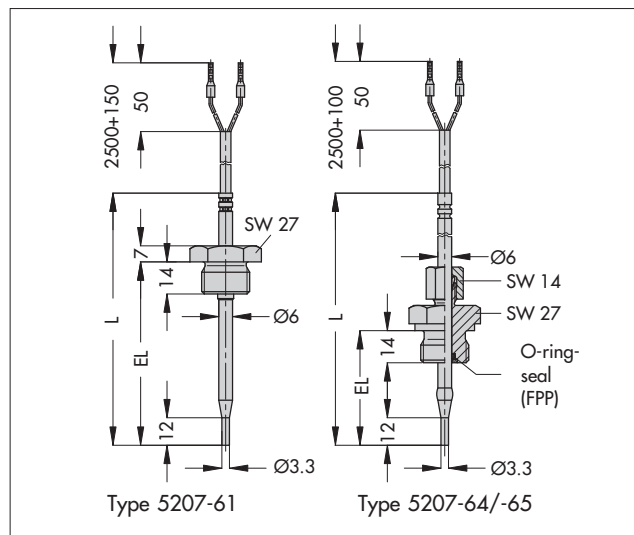
Table 2 · Materials

Immersion tube, screw fitting	CrNiMo
Screw gland	CrNiMo
Seal	FPM
Connecting cable	Insulation: Silicone The silicone connecting cable is approved for permanent use within the temperature range -50...+180 °C.

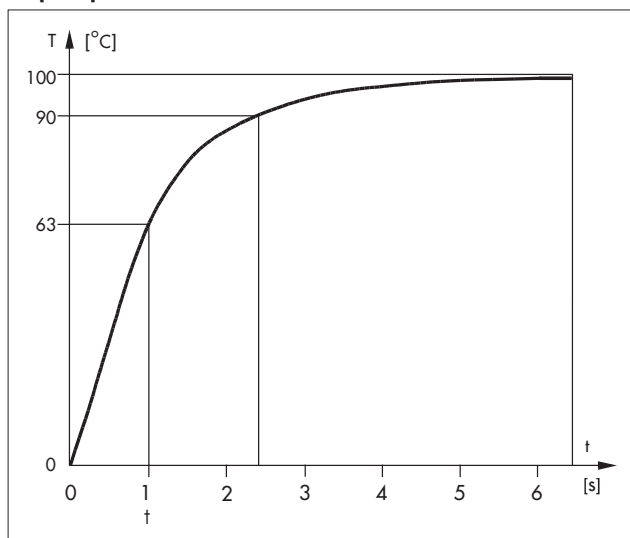
Electrical connection



Dimensions in mm



Step response of sensors



Specifications subject to change without notice.

