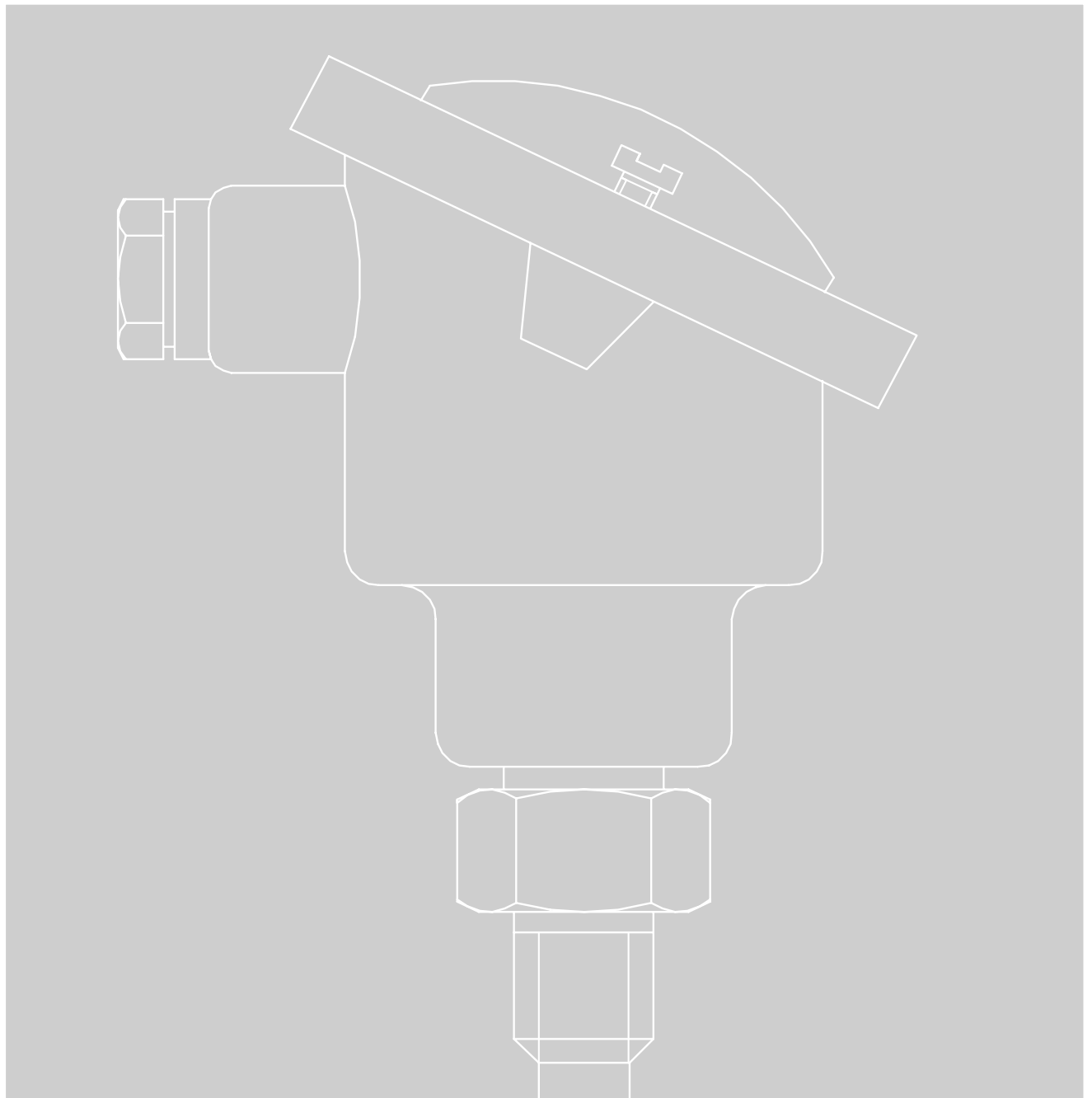





Heating, ventilation and air-conditioning applications



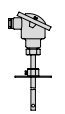
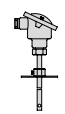

Outdoor sensors

Measurement of outdoor temperature mounted on the exterior walls of buildings

Type	5225	5226	5227-2
Resistor	Pt 100	Pt 100	Pt 1000
Quantity	1	2	1
Permissible temperature [°C]			
Medium	-20 ... 50	-20 ... 50	-35 ... 85
Ambient	-35 ... 85	-35 ... 85	-35 ... 85
Style			
Data Sheet	T 5203 EN	T 5203 EN	T 5220 EN








Duct sensors

Measurement of supply air, mixed air, or exhaust air temperatures in ventilation and air-conditioning systems (non-corrosive air or gases)

Type	5215	5216	5217
Resistor	Pt 100	Pt 100	Pt 1000
Quantity	1	2	1
Sensor length [mm]	60 ... 300	60 ... 300	60 ... 280
Sensor shaft of	Ni-pl. brass	Ni-pl. brass	Ni-pl. brass
Permissible temperature [°C]			
Medium	-35 ... 200	-35 ... 200	-20 ... 150
Ambient	-20 ... 70	-20 ... 70	-20 ... 70
Style			
Data Sheet	T 5203 EN	T 5203 EN	T 5220 EN

Room sensors and room panels

Measurement of room temperature in recreation rooms and offices

Type	5255	5257-1 ¹⁾	5257-2 ¹⁾	5257-3 ¹⁾	5257-5 ¹⁾	5257-6 ¹⁾	5257-7 ¹⁾
Resistor	Pt 100	Pt 1000	Pt 1000	Pt 1000	Pt 1000	Pt 1000	Pt 1000
Quantity	1	1	1	1	1	1	1
Perm. temperature range [°C]	-35 ... 85	-35 ... 70	-35 ... 70	-35 ... 70	-20 ... 60	-35 ... 70	-20 ... 60
Scope							
Set point correction			•	•	•	•	•
Mode selector switch					•		•
Step switch						•	
Pushbutton				•			
Style							
Data Sheet	T 5203 EN	T 5220 EN	T 5220 EN	T 5220 EN	T 5220 EN	T 5220 EN	T 5220 EN

¹⁾ See associated Data Sheet T 5220 EN for possible connections to SAMSON controllers




Fig. 1 · Type 5227-2 Outdoor Sensor

Fig. 2 · Type 5257-5 Room Panel



Contact sensor

Measurement of water temperature in heating supply pipes and return pipes

Type	5267-2
Resistor	Pt 1000
Quantity	1
Perm. temperature range [°C]	-20 ... 120
Style	
Data Sheet	T 5220 EN

Immersion sensors with thermowell

Measurement of water temperature in heating supply pipes and return pipes, in hot water heaters and heating plants. Thermowell required.

Type	5277-2	5277-3, -5
Resistor	Pt 1000	Pt 1000
Quantity	1	1
Length [mm]		
Sensor	80, 250	80, 250
Connecting lead	2000	3000, 5000
Sensor shaft made of	Brass, CrNiMo	Brass, CrNiMo
Nom. pressure	PN 16, PN 40	PN 16, PN 40
Perm. temp. range [°C]	-10 ... 105	-50 ... 180
Style		
Data Sheet	T 5220 EN	T 5220 EN

Fast-response temperature sensors

Temperature sensor with fast response times for measuring rapid changes in temperature in heat exchangers

Type	5207-0060	5207-61	5207-64	5207-65
Resistor	Pt 1000	Pt 1000	Pt 1000	Pt 1000
Quantity	1	1	1	1
Length [mm]				
Imm. tube	-	110	170	250
Imm. depth	52	80	40 ... 100	120 ... 190
Connecting cable	2000	2500	2500	2500
Nom. pressure	PN 16	PN 40	PN 40	PN 40
Permissible temperature [°C]				
Medium	-5 ... 90	-50 ... 180	-15 ... 180	-15 ... 180
Ambient	-5 ... 80	-50 ... 180	-15 ... 180	-15 ... 180
Data Sheet	T 5222 EN	T 5221 EN	T 5221 EN	T 5221 EN



Fig. 3 · Type 5267-2 Contact Sensor

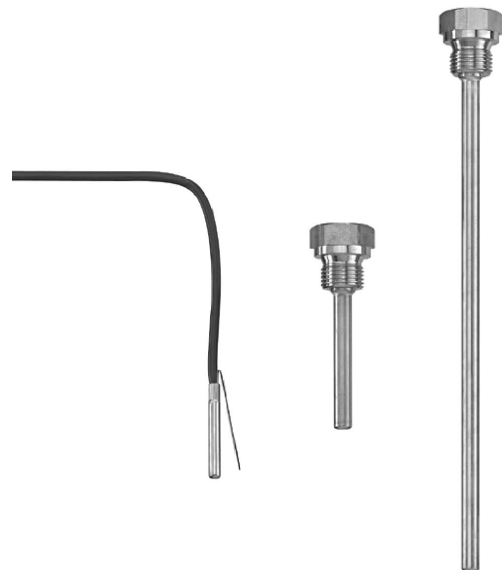







Fig. 4 · Type 5277-2 Immersion Sensor with short and long thermowells



Fig. 5 · Type 5207-0060 Fast-response Temperature Sensor

Screw-in sensors

Measurement of water temperature in heating supply pipes and return pipes, in DHW heaters and heating plants.

Type	5204-21 5204-26 5204-27	5205-46 5205-47 5205-48	5206-46 5206-47 5206-48	5207-21 5207-26 5207-27	5207-46 5207-47 5207-48
Resistor	Pt 100	Pt 100	Pt 100	Pt 1000	Pt 1000
Quantity	1	1	2	1	1
Sensor length					
80 mm	5204-21	–	–	5207-21	–
160 mm	5204-27	5205-47	5206-47	5207-27	5207-47
250 mm	5204-26	5205-46	5206-46	5207-26	5207-46
400 mm	–	5205-48	5206-48	–	5207-48
Sensor shaft made of	Brass ¹⁾	1.4571	1.4571	Brass	1.4571
Nom. pressure	PN 16	PN 40	PN 40	PN 16	PN 40
Permissible temperature [°C]					
Medium	-20...150	-60...400	-60...400	-20...150	-60...400
Ambient	-20...70	-20...70	-20...70	-20...70	-20...70
Style					
Data Sheet T EN	5203	5203	5203	5220	5220

¹⁾ Type 5204-21 also available in 1.4571 and PN 40. Refer to T 5203 EN.







Fig. 6 · Type 5205/5206 Screw-in Sensor

Thermostats




Typetested thermostats for use as temperature monitors (TM), safety temperature monitors (STM), temperature regulators (TR) or safety temperature limiter (STL) as well as in combinations consisting of temperature regulator and safety temperature limiter (TR/STL) or temperature regulator and safety temperature monitors (TR/STM).



Single thermostats

Type	5312-2	5343-1 to -4	5344-1 and -2	5345-1 and -2
Function	TM	STM	TR	STL
Set point range [°C]	-10 ... 12	0 ... 60, 40 ... 100, 70 ... 130 or -35 ... 95	0 ... 120 or 20 ... 150	70 ... 130 or 30 ... 90
Sensor length [mm]	6000	100, 150, 200, 300 ¹⁾		
Max. medium temperature [°C]	200	85, 125, 155 or 120	145 or 175	155 or 115
Style				
Data Sheet	T 5207 EN	T 5206 EN		

Double thermostats

Type	5347-1 and -2	5348-1 and -2	5349-1
Function	TR/STL	TR/STM	STM/STL
Set point range [°C]	TR: 0 ... 120 STL: 70 ... 130 or TR: 0 ... 120 STL: 30 ... 90	TR: 0 ... 120 STM: 70 ... 130 or TR: 0 ... 120 STM: 40 ... 100	STM: 70 ... 130 STL: 70 ... 130
Sensor length [mm]	150, 300 ¹⁾		
Max. medium temperature [°C]	145 or 115	145 or 125	145
Style			
Data Sheet	T 5206 EN		

Note: Old SAMSON thermostats can be replaced by the new SAMSON thermostats as shown in the table on the next page.

Replacement of old SAMSON thermostats with the new SAMSON thermostats

Function	OLD			Thermowell	NEW		
	SAMSON Type	Var.-ID	Range		SAMSON Type	Var.-ID	Range
STM	5313-4	1008795	0 ... 60 °C	150 x 8 mm, G ½	5343-1	2111650	0 ... 60 °C
	5313-5	1008797	60 ... 100 °C	150 x 8 mm, G ½	5343-2	2111654	40 ... 100 °C
	5313-6	1008796	60 ... 110 °C	150 x 8 mm, G ½	5343-3	2111655	70 ... 130 °C
	5313-7	1008798	60 ... 120 °C	150 x 8 mm, G ½			
	5313-8	1008799	60 ... 130 °C	150 x 8 mm, G ½			
	5313-9	1008801	20 ... 95 °C	300 x 8 mm, CrNiMo	5343-4	2382590	35 ... 95 °C
	5313-10	1008800	50 ... 300 °C	150 x 8 mm, G ½	1)		
TR	5314-1	1008802	20 ... 90 °C	150 x 8 mm, G ½	5344-1	2111657	0 ... 120 °C
	5314-2	1008803	20 ... 90 °C	300 x 8 mm, G ½			
	5314-3	1008804	20 ... 150 °C	100 x 8 mm, G ½	5344-2	2111659	20 ... 150 °C
STL	5315-1	1008805	30 ... 110 °C	150 x 8 mm, G ½	5345-1	2108361	70 ... 130 °C
	5315-2	1008806	60 ... 130 °C	150 x 8 mm, G ½			
	5315-3	1008807	130 ... 200 °C	150 x 8 mm, G ½	1)		
					5345-2	2382592	30 ... 90 °C
TR/STL	5317-2	1008810	30 ... 110 °C	150 x 8 mm, G ½	5347-1	2108363	TR: 0 ... 120 °C
	5317-3	1008809	20 ... 90 °C	150 x 8 mm, G ½			STL: 70 ... 130 °C
	5317-4	1008811	50 ... 120 °C	150 x 8 mm, G ½	5347-2	2821326	TR: 0 ... 120 °C
	5317-5	1008808	60 ... 130 °C	150 x 8 mm, G ½			STL: 30 ... 90 °C
TR/STM	5318-1	1008813	0 ... 70 °C	300 x 8 mm, G ½	1)		
	5318-2	1008814	20 ... 120 °C	150 x 8 mm, G ½	5348-1	2108365	TR: 0 ... 120 °C
	5318-3	1008815	20 ... 100 °C	150 x 8 mm, G ½			STM: 70 ... 130 °C
	5318-4	1008812	20 ... 110 °C	150 x 8 mm, G ½	5348-2	2821369	TR: 0 ... 120 °C STM: 40 ... 100 °C
STM/STL					5349-1	2347423	STM: 70 ... 130 °C STL: 70 ... 130 °C

1) No comparable thermostat in the current product range

Specifications subject to change without notice.



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