MOUNTING AND OPERATING INSTRUCTIONS

EB 5206 EN

Translation of original instructions

Type 5343 Safety Temperature Monitor (STM)

Type 5344 Temperature Regulator (TR)

Type 5345 Safety Temperature Limiter (STL)

Type 5347 Double Thermostat (TR/STL)

Type 5348 Double Thermostat (TR/STM)

Type 5349 Double Thermostat (STM/STL)

Thermostats

Type 5343 · Type 5344 · Type 5345
Type 5347 · Type 5348 · Type 5349

Edition March 2020

Note on these mounting and operating instructions

These mounting and operating instructions assist you in mounting and operating the device safely. The instructions are binding for handling SAMSON devices. The images shown in these instructions are for illustration purposes only. The actual product may vary.

➔ For the safe and proper use of these instructions, read them carefully and keep them for later reference.

➔ If you have any questions about these instructions, contact SAMSON's After-sales Service (aftersalesservice@samsongroup.com).

The mounting and operating instructions for the devices are included in the scope of delivery. The latest documentation is available on our website at ***www.samsongroup.com > Service & Support > Downloads > Documentation***.

Definition of signal words

⚠ DANGER
Hazardous situations which, if not avoided, will result in death or serious injury

⚠ WARNING
Hazardous situations which, if not avoided, could result in death or serious injury

NOTICE
Property damage message or malfunction

Note
Additional information

Tip
Recommended action

1 Safety instructions and measures

Intended use

The Types *5343*, *5344*, *5345*, *5347*, *5348* and *5349* Thermostats are designed as switching devices to open or close a circuit based on the temperature in heating, ventilation and air-conditioning systems as well as in process engineering and industrial energy transfer systems. The thermostats are designed to operate under exactly defined conditions (e.g. switching point, voltage). Therefore, operators must ensure that a thermostat is only used in operating conditions that meet the specifications used for sizing the thermostat at the ordering stage. In case operators intend to use a thermostat in applications or conditions other than those specified, contact SAMSON.

SAMSON does not assume any liability for damage resulting from the failure to use the device for its intended purpose or for damage caused by external forces or any other external factors.

➔ Refer to the technical data for limits and fields of application as well as possible uses. See the 'Design and principle of operation' section.

Reasonably foreseeable misuse

The thermostats are not suitable for the following applications:

– Use outside the limits defined during sizing and by the technical data

Furthermore, the following activities do not comply with the intended use:

– Use of non-original spare parts
– Performing service and repair work not described

Qualifications of operating personnel

The thermostats must be mounted, started up, serviced and repaired by fully trained and qualified personnel only; the accepted industry codes and practices must be observed. According to these mounting and operating instructions, trained personnel refers to individuals who are able to judge the work they are assigned to and recognize possible hazards due to their specialized training, their knowledge and experience as well as their knowledge of the applicable standards.

Personal protective equipment

No personal protective equipment is required for the direct handling of the thermostats. Work on the control valve or pipeline may be necessary when mounting or removing the device.

➔ Observe the requirements for personal protective equipment specified in the valve documentation.

➔ Check with the plant operator for details on further protective equipment.

Revisions and other modifications

Revisions, conversions or other modifications of the product are not authorized by SAMSON. They are performed at the user's own risk and may lead to safety hazards, for example. Furthermore, the product may no longer meet the requirements for its intended use.

Safety features

In the event of a capillary tube rupture, the changeover contact moves and stays permanently in a position defined by its design. A safety temperature limiter (STL) is, in this case, in the fail-safe position. It cannot be unlocked.

Warning against residual hazards

To avoid personal injury or property damage, plant operators and operating personnel must prevent hazards that could be caused in the control valve by the process medium, the operating pressure, the signal pressure or by moving parts by taking appropriate precautions. Plant operators and operating personnel must observe all hazard statements, warning and caution notes in these mounting and operating instructions, especially for installation, start-up and service work.

Responsibilities of the operator

Operators are responsible for proper use and compliance with the safety regulations. Operators are obliged to provide these mounting and operating instructions to the operating personnel and to instruct them in proper operation. Furthermore, operators must ensure that operating personnel or third parties are not exposed to any danger.

Responsibilities of operating personnel

Operating personnel must read and understand these mounting and operating instructions as well as the specified hazard statements, warning and caution notes. Furthermore, operating personnel must be familiar with the applicable health, safety and accident prevention regulations and comply with them.

Referenced standards, directives and regulations

The Types 5343, 5344, 5345, 5347, 5348 and 5349 Thermostats with a CE marking comply with the requirements of the Directives 2014/30/EU and 2014/35/EU.
The Types 5343, 5344, 5345, 5347 and 5348 Thermostats with an EAC marking comply with the requirements of the Regulations TR CU 004/2011 and TR CU 020/2011.

The 'Certificates' section contains this declarations of conformity and TR CU certificate.

The Types 5343, 5344, 5345, 5347, 5348 and 5349 Thermostats are designed for use in low voltage installations.

➔ For wiring, maintenance and repair, observe the relevant safety regulations.

Referenced documentation

The following documents apply in addition to these mounting and operating instructions:

- T 5200 (Information Sheet: Temperature Sensors and Thermostats)

1.1 Notes on possible severe personal injury

⚠ DANGER

Risk of fatal injury due to electric shock.

➔ Before connecting wiring, performing any work on the device or opening the device, disconnect the supply voltage and protect it against unintentional reconnection.

➔ Only use power interruption devices that can be protected against unintentional reconnection of the power supply.

➔ Do not remove any covers to perform adjustment work on live parts.

The thermostats are protected against spray water (IP 54).

➔ Avoid jets of water.

Risk of bursting in pressure equipment.

➔ Before starting any work on the thermostat, depressurize all plant sections affected as well as the valve.

➔ Drain the process medium from all the plant sections affected.

➔ Wear appropriate personal protective equipment (safety gloves, goggles etc.).

1.2 Notes on possible personal injury

⚠ WARNING

Risk of burn injuries as a result of touching hot or cold components.

Thermostats installed in pipelines as well as the surrounding pipes, valves and other components may be hot or cold.

➔ Before performing any work on the device, shut off the medium flow.

➔ Allow devices to cool down or warm up to the ambient temperature.

➔ Wear personal protective equipment that is suitable for the purpose.

Risk of personal injury through incorrect operation, use or installation as a result of information on the thermostat being illegible.

Over time, markings, labels and nameplates on the thermostat may become covered with dirt or become illegible in some other way. As a result, hazards may go unnoticed and the necessary instructions not followed. There is a risk of personal injury.

➔ Keep all relevant markings and inscriptions on the device in a constantly legible state.

➔ Immediately renew damaged, missing or incorrect nameplates or labels.

i Note

Risk of filler liquid escaping when the capillary tube is damaged.

Filler liquid can flow out of the device when the capillary tube is damaged through bending or rupture. There is no risk of personal injury.

Any filler liquid that escapes is not toxic nor acts as an irritant. It only poses a low aquatic hazard. To date, health authorities have not issued any health hazard or restrictions concerning the short-term exposure to low concentrations of the liquid.

➔ No special action required.

1.3 Notes on possible property damage

NOTICE

Risk of damage to the thermostat due to the supply voltage exceeding the permissible tolerances.

The Types 5343, 5344, 5345, 5347, 5348 and 5349 Thermostats are designed for use according to regulations for low-voltage installations.

➔ Observe the permissible tolerances of the supply voltage.

Risk of thermostat damage due to incorrect mounting.

The Types 5343, 5344, 5345, 5347, 5348 and 5349 Thermostats must be mounted properly and depending on the type of mounting.

Risk of thermostat failure due to a damaged capillary tube.

The thermostat is permanently damaged when the capillary tube of thermostat is bent or cut.

➔ Do not bend the capillary tube.

➔ Do not cut the capillary tube.

Risk of damage to the thermostat due to turning the set point adjuster too far.

The temperature set point can be adjusted manually at the thermostat. The thermostat will be damaged if the set point adjuster is turned beyond one of its two end stops.

➔ Do not turn the set point adjuster past its end stops.

Incorrect connection of the electrical power supply will damage the thermostat.

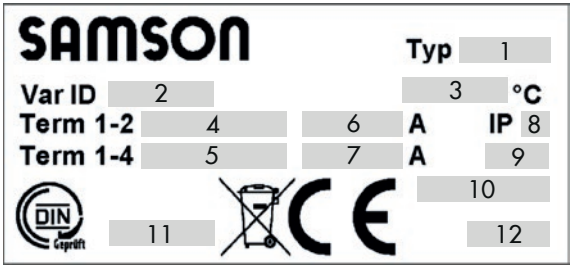
The thermostats have terminals that conduct electricity and are integrated into a circuit.

➔ Do not apply the voltage (L and N) to terminals 1/2 or 1/4.

➔ Observe the tolerances of the technical data.

2 Markings on the device

2.1 Nameplate



1 Type designation
2 Configuration ID/material number
3 Temperature measuring range
4 Perm. voltage of NC contact
5 Perm. voltage of NO contact
6 Max. current of NC contact
7 Max. current of NO contact
8 Degree of protection
9 Max. perm. temperature for housing
10 Serial number
11 DIN registration no.
12 Date of manufacture

3 Design and principle of operation

3.1 Single thermostat

The thermostat is equipped with a changeover contact. When the thermostat is triggered, the connection between connections 1 and 2 are interrupted and the connections 1 and 4 are connected (see the 'Installation' section).

Safety temperature monitors (STM)

A snap-action switch in the STM is triggered when the temperature at the temperature sensor rises above the adjusted set point. When the temperature falls below the set point by approximately 8 K, the switch returns to its original position.

The changeover contact interrupts the connections 2 and 4 and connects the connections 1 and 2 when the temperature at the temperature sensor falls below –20 °C. The snap-action switch automatically returns to the original position as soon as the temperature at the temperature sensor rises above –20 °C again.

The snap-action switch is triggered when the capillary tube breaks.

Temperature regulators (TR)

The snap-action switch is triggered when the temperature at the temperature sensor rises above the adjusted set point. When the temperature falls below the set point by approximately 4 K, the switch returns to its original position.

Safety temperature limiters (STL)

The snap-action switch is triggered and locked when the temperature at the temperature sensor rises above the adjusted set point. When the temperature falls below the set point by approximately 10 %, the snap-action switch can be unlocked manually.

The changeover contact interrupts the connections 2 and 4 and connects the connections 1 and 4 when the temperature at the temperature sensor falls below –20 °C. The STL automatically unlocks as soon as the temperature at the temperature sensor rises above –20 °C again.

The snap-action operation is triggered and remains in this position when the capillary tube breaks. It is not possible to unlock the device in this case.

3.2 Double thermostat

Double thermostats are two thermostats that work independently but share the same housing. The principle of operation is the same as that of the single thermostat. Each thermostat has its own capillary tube.

The following combinations are possible:

– TR/STL
– TR/STM
– STM/STL

3.3 Testing according to DIN EN 14597

The Types 5343, 5344 and 5345 Thermostats are tested by the German technical surveillance association TÜV according to DIN EN 14597. Tested versions are indicated on the nameplate.

Type	DIN register number
5343	STW1209
5344	TR1208
5345	STB1207

3.4 Technical data

Table 3-1: *General technical data · Types 5343, 5344, 5345, 5347, 5348 and 5349*

Single thermostats: Type 5343 (STM), Type 5344 (TR), Type 5345 (STL) **Double thermostats: Type 5347 (TR/STL), Type 5348 (TR/STM), Type 5349 (STM/STL)**			
Permissible ambient temperature			
Transportation and storage	−30 to +80 °C		
Service	Max. 80 °C		
Pipe temperature when mounted as a contact thermostat	Max. 120 °C		
Sensor length/diameter	87 mm/6 mm		
Capillary tube length	2000 mm		
Degree of protection	IP54 according to EN 60529		
Cable entry	M20x1.5 cable gland, suitable for 6 to 12 mm cable diameter		
Minimum switching capacity	AC/DC = 24 V, 100 mA		
Maximum switching capacity			
Temperature regulator (TR), safety temperature monitor (STM)	With 230 V AC +10 %	NC contact: NO contact:	16 A (2.5); cos φ = 1 (0.6) 6.3 A (2.5); cos φ = 1 (0.6)
	With 230 V DC +10 %	NC contact: NO contact:	0.25 A 0.25 A
Safety temperature limiter (STL)	With 230 V AC +10 %	NC contact: Signal contact:	16 A (2.5); cos φ = 1 (0.6) 2 A (2.5); cos φ = 1 (0.4)
	With 230 V DC +10 %	NC contact: Signal contact:	0.25 A 0.25 A
Influence of mean ambient temperature based on the set point	A shift of the switching point arises when the ambient temperature at the knob and at the capillary tube deviates from the calibration ambient temperature of +22 °C: Higher ambient temperature → Lower switching point Lower ambient temperature → Higher switching point This influence is minimized by temperature compensation.		
Electrical connection	Spring-cage terminals, 0.75 to 2.5 mm² wire cross-section		
Materials			

Single thermostats: Type 5343 (STM), Type 5344 (TR), Type 5345 (STL) Double thermostats: Type 5347 (TR/STL), Type 5348 (TR/STM), Type 5349 (STM/STL)	
Bottom section of the housing	PA (reinforced)
Housing cover	ABS with window (PMMA)
Temperature sensor, capillary tube	Cu (copper)
Weight	Single thermostat approx. 0.225 kg Double thermostat approx. 0.45 kg
Conformity	CE · EAC [1]
Testing according to DIN EN 14597 (Types 5343, 5344 and 5345)	DIN geprüft

[1] No EAC compliance for Type 5349

Table 3-2: *Technical data (depending on type)*

Type	Set point range	Switching differential	Switching point accuracy	Maximum medium temperature
Safety temperature monitors (STM)				
5343-1	0 to 60 °C	8 K	Range: 0 to 25 °C 0 K –8.5 K	85 °C
			Range: 25 to 35 °C 0 K –6.0 K	
			Range: 35 to 60 °C 0 K –8.5 K	
5343-2	40 to 100 °C	8 K	Range: 40 to 100 °C 0 K –8.5 K	125 °C
5343-3	70 to 130 °C	8 K	Range: 70 to 130 °C 0 K –8.5 K	155 °C
5343-4	35 to 95 °C	8 K	Range: 35 to 95 °C 0 K –8.5 K	120 °C
Temperature regulators (TR)				
5344-1	0 to 120 °C	3 K	Range: 0 to 80 °C +7.2 K –7.2 K	145 °C
			Range: 80 to 120 °C +3.6 K –3.6 K	
5344-2	20 to 150 °C	4 K	Range: 20 to 106 °C +7.8 K –7.8 K	175 °C
			Range: 106 to 150 °C +3.9 K –3.9 K	

Type	Set point range	Switching differential	Switching point accuracy	Maximum medium temperature
Safety temperature limiters (STL)				
5345-1	70 to 130 °C	8 K	Range: 70 to 130 °C 0 K –8.5 K	155 °C
5345-2	30 to 90 °C	8 K	Range: 30 to 90 °C 0 K –8.5 K	115 °C
Double thermostats TR/STL				
5347-1	TR: 0 to 120 °C	3 K	Range: 0 to 80 °C +7.2 K –7.2 K	145 °C
			Range: 80 to 120 °C +3.6 K –3.6 K	
	STL: 70 to 130 °C	8 K	Range: 70 to 130 °C 0 K –8.5 K	
5347-2	TR: 0 to 120 °C	3 K	Range: 0 to 80 °C +7.2 K –7.2 K	115 °C
			Range: 80 to 120 °C +3.6 K –3.6 K	
	STL: 30 to 90 °C	8 K	Range: 30 to 90 °C 0 K –8.5 K	
Double thermostats TR/STM				
5348-1	TR: 0 to 120 °C	3 K	Range: 0 to 80 °C +7.2 K –7.2 K	145 °C
			Range: 80 to 120 °C +3.6 K –3.6 K	
	STM: 70 to 130 °C	8 K	Range: 70 to 130 °C 0 K –8.5 K	
5348-2	TR: 0 to 120 °C	3 K	Range: 0 to 80 °C +7.2 K –7.2 K	125 °C
			Range: 80 to 120 °C +3.6 K –3.6 K	
	STM: 40 to 100 °C	8 K	Range: 40 to 100 °C 0 K –8.5 K	
Double thermostat STM/STL				
5349-1	STM: 70 to 130 °C	8 K	Range: 70 to 130 °C 0 K –8.5 K	145 °C
	STL: 70 to 130 °C		Range: 70 to 130 °C 0 K –8.5 K	

Table 3-3: *Properties of the measuring fluid*

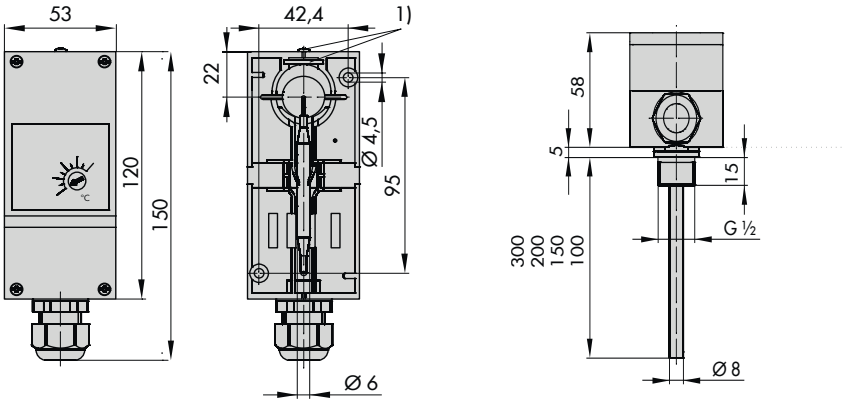
Dangerous reaction	No
Ignition temperature	375 °C
Water hazard	Class 1, slightly contaminating
Toxicological specifications	
Irritant	No
Health hazard	No
Toxic	No

3.5 Dimensions

Single thermostats

Type 5343 Safety Temperature Monitor (STM)

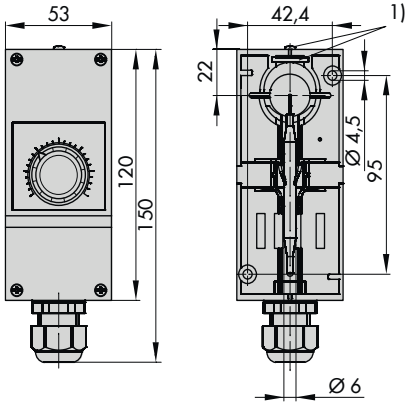
Dimensions with thermowell (accessories)



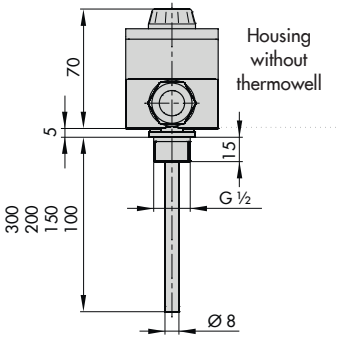
1) Metal plate and screw for fastening the thermostat onto the thermowell (wall mounting)

Fig. 3-1: *Dimensions in mm · Type 5343 Thermostat*

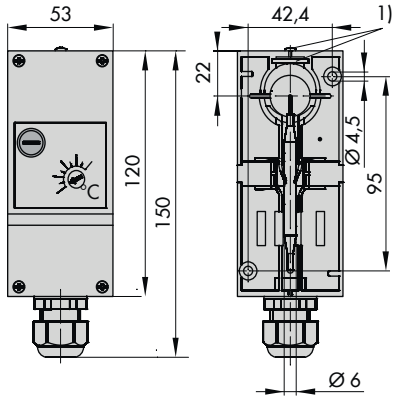
Type 5344 Temperature Regulator (TR)



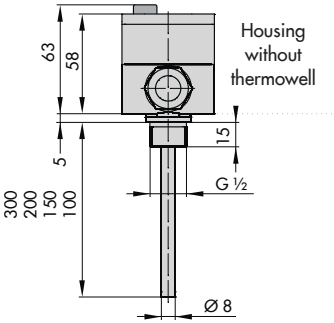
Dimensions with thermowell (accessories)



Type 5345 Safety Temperature Limiter (STL)



Dimensions with thermowell (accessories)



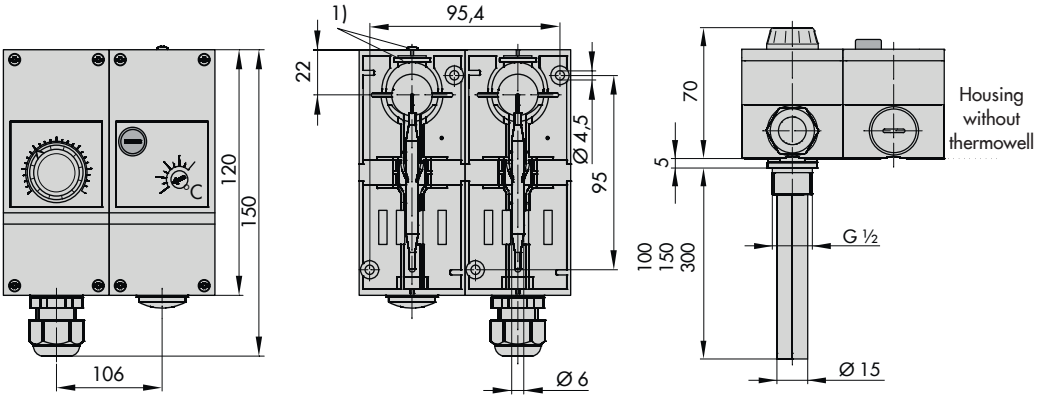
1) Metal plate and screw for fastening the thermostat onto the thermowell (wall mounting)

Fig. 3-2: *Dimensions in mm · Types 5344 and 5345 Thermostats*

Double thermostats

Type 5347 Double Thermostat (TR/STL)

Dimensions with thermowell (accessories)



Type 5349 Double Thermostat (STL/STM)

Dimensions with thermowell (accessories)

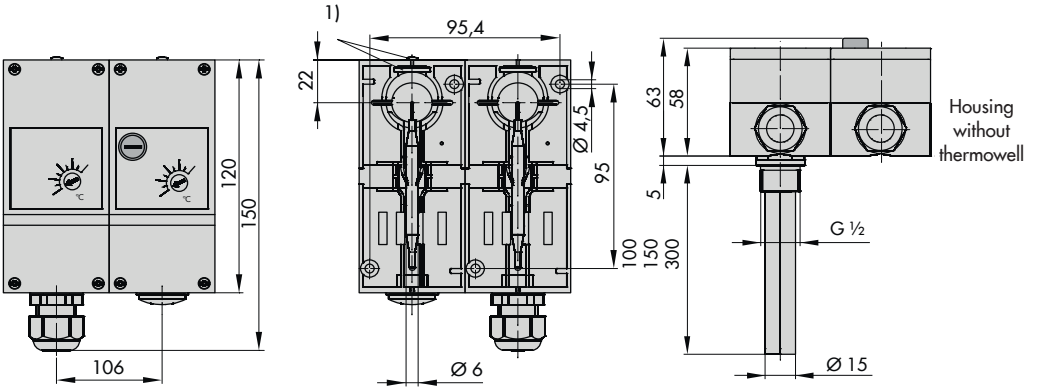
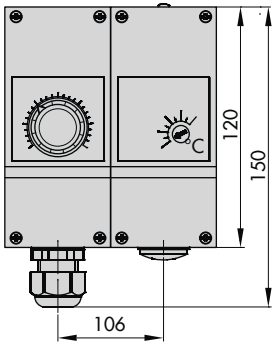
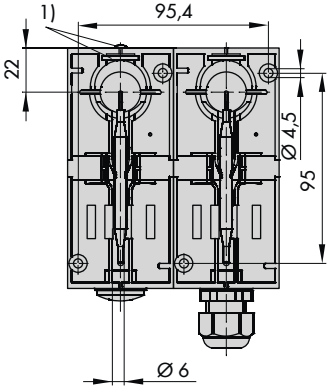


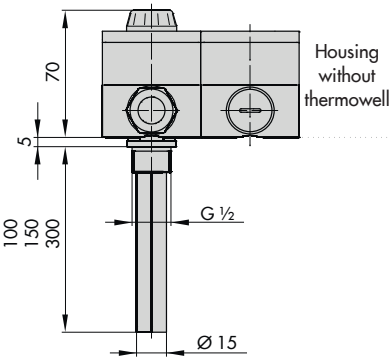
Fig. 3-3: *Dimensions in mm · Types 5347, 5348 and 5349 Double Thermostats*

Type 5348 Double Thermostat (TR/STM)





Dimensions with thermowell (accessories)



1) Metal plate and screw for fastening the thermostat onto the thermowell (wall mounting)

4 Shipment and on-site transport

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

4.1 Accepting the delivered goods

After receiving the shipment, proceed as follows:

1. Compare the shipment received with the delivery note.
2. Check the shipment for transportation damage. Report any damage to SAMSON and the forwarding agent (refer to delivery note).

4.2 Removing the packaging from the thermostat

Note

Do not remove the packaging until immediately before mounting and start-up.

1. Remove the packaging from the thermostat.
2. Check scope of delivery (see Fig. 4-1).
3. Dispose of the packaging in accordance with the valid regulations.

1x	Type 534x Thermostat, (temperature regulator (TR) including button)
1x	Document IP 5206 (Important Product Information)

Fig. 4-1: *Scope of delivery*

4.3 Transporting the thermostat

– Protect the thermostat against external influences (e.g. impact).
– Protect the thermostat against moisture and dirt.
– Observe the permissible transportation temperature of –30 to +80 °C.

4.4 Lifting the thermostat

Due to the low service weight, lifting equipment is not required to lift the thermostat.

4.5 Storing the thermostat

NOTICE

Risk of thermostat damage due to improper storage.

➔ *Observe the storage instructions.*
➔ *Avoid long storage times.*
➔ *Contact SAMSON in case of different storage conditions or longer storage times.*

i ***Note***

We recommend regularly checking the thermostat and the prevailing storage conditions during long storage periods.

Storage instructions

– Protect the thermostat against external influences (e.g. impact).
– Protect the thermostat against moisture and dirt.
– Make sure that the ambient air is free of acids or other corrosive media.
– Observe the permissible storage temperature from –30 to +80 °C.
– Do not place any objects on the thermostat.

5 Installation

5.1 Installation conditions

Work position

If not described otherwise in the valve or actuator documentation, the work position for the thermostat is the front view looking onto the operating controls.

Mounting orientation

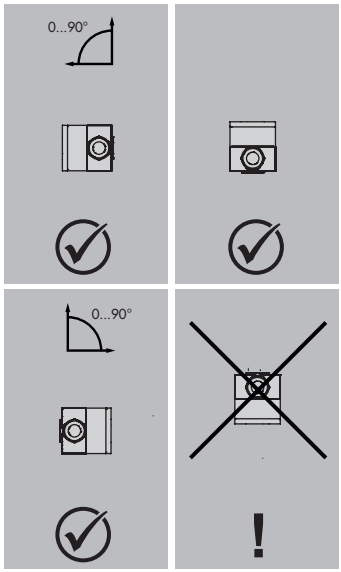


Fig. 5-1: *Mounting position for a contact thermostat*

Contact thermostat

When the thermostat is installed as a contact thermostat, the sensor must not point upward (bottom of the thermostat).

Thermostat with thermowell

The thermostat with a thermowell may be installed in any position.

5.2 Preparation for installation

Before mounting, make sure the following conditions are met:

– The thermostat is not damaged.

Proceed as follows:

Lay out the necessary material and tools to have them ready during mounting.

Seals

NOTICE

Inadequate protection against spray water through insufficient sealing.

➔ *Do not remove the seals in the housing (1) and on the set point adjuster of the temperature regulator (4). See Fig. 5-2.*

➔ *The thermostat must only be operated with an inserted seal (6). See Fig. 5-2.*

The supplied seal must be inserted to meet the requirements for degree of protection IP 54 (see Fig. 5-2).

1 Thermostat
2 Sensor
3 Capillary tube
4 Set point adjuster (TR only)
5a Spring for unlocking (STL only)
6 Seal for degree of protection IP 54

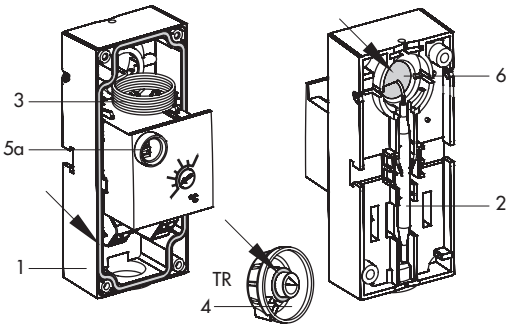


Fig. 5-2: *Single thermostat · Inside view*

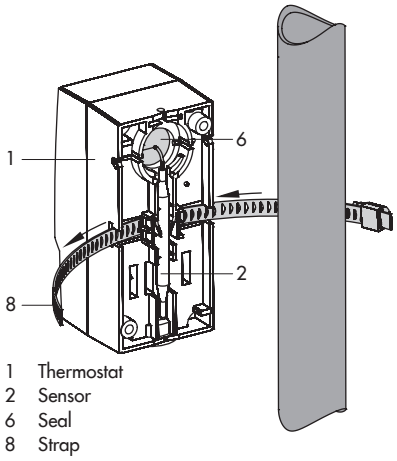
5.3 Mounting the contact thermostat

Single thermostats can be mounted onto pipes with diameters between 15 and 100 mm. A strap is required in this case (see Annex).

4. Insert seal (6) as shown in Fig. 5-3.
5. Thread the strap (8) behind the sensor holder at the back of the housing (1).
6. Use the strap to attach the thermostat to the pipe.
7. Unscrew the front cover of the thermostat.
8. Connect the wiring as shown in section 5.5.
9. Screw the front cover back onto the thermostat.

Temperature regulators (TR):

➔ Place the set point adjuster on the shaft.



1 Thermostat
2 Sensor
6 Seal
8 Strap

Fig. 5-3: *Mounting a contact thermostat*

5.4 Thermostat with thermowell

Measures for preparation before mounting the thermowell

Note

The sensors of double thermostats share the same thermowell (see Annex).

Before fastening the thermostat, uncoil the capillary tube to the required length:

– For wall mounting, the required length depends on the required capillary tube and length of the thermowell
– For mounting the thermostat on tanks/in pipes, the required length depends on the length of the thermowell

NOTICE

Risk of thermostat malfunction due to measuring fluid escaping upon breakage of the capillary tube.

➔ *Do not bend the capillary tube.*
➔ *Do not cut the capillary tube.*
➔ *Do not pull at the sensor on uncoiling the capillary tube.*
➔ *Do not use a smaller bending radius than 5 mm.*

1. Unscrew the front cover of the thermostat.
2. Detach the sensor from the back of the thermostat.
3. Route the sensor through the back of the housing to the front.
4. Uncoil the capillary to the required length (see Fig. 5-5).
5. Route the sensor again through the back of the housing (see Fig. 5-5).
6. Insert seal (6) as shown in Fig. 5-6 or Fig. 5-7.

➔ Proceed as described in section 5.4.1 or in section 5.4.2 depending on how the thermostat is to be mounted.

5.4.1 Wall mounting

The thermostat is fastened to the wall using two screws (not included in the scope of delivery).

1. Drill holes in wall as shown in Fig. 5-4.
2. Insert the seal (6).
3. Fix the capillary tube in the notch at the side of the thermostat housing or let it run down the middle (see Fig. 5-6).
4. Fasten the back of the housing (1) using two screws to the wall.
5. Screw the thermowell (7) into the pipe or tank.
6. Push the sensor (2) as far as it will go into the thermowell (7).
7. Fasten the capillary tube (3) to the thermowell (7) using the supplied clip (7a).
8. Connect the wiring as shown in section 5.5.
9. Screw the front cover back onto the thermostat.

Temperature regulators (TR):

➔ Place the set point adjuster on the shaft.

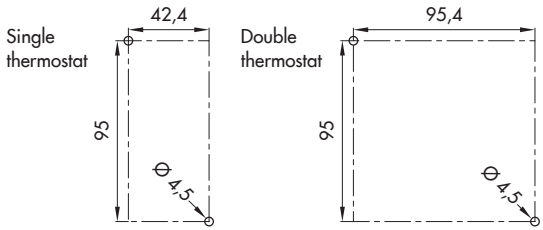


Fig. 5-4: *Drill templates · Dimensions in mm*

5.4.2 Mounting on tanks or in pipes

The thermostat is fastened to the thermowell which is screwed into place.

1. Insert the seal (6).
2. Screw the thermowell (7) into the pipe or tank.
3. Insert the small metal plate (7b) at the back of the housing (1) and secure in place with the screw (7c).
4. Push the sensor (2) as far as it will go into the thermowell (7), making sure that the round hole at the back of the housing (1) rests on the collar on the thermowell.
5. Push the thermostat approx. 2 mm lengthways toward the SAMSON logo to allow the thermowell to engage.
6. Turn the screw (7c) until the housing is fixed into place on the thermowell.
7. Connect the wiring as shown in section 5.5.
8. Screw the front cover back onto the thermostat.

Temperature regulators (TR):

➔ Place the set point adjuster on the shaft.

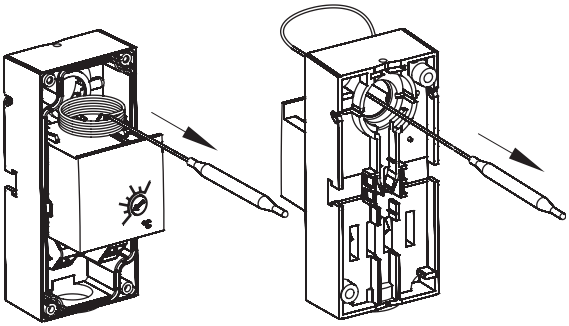


Fig. 5-5: *Uncoiling the capillary tube*

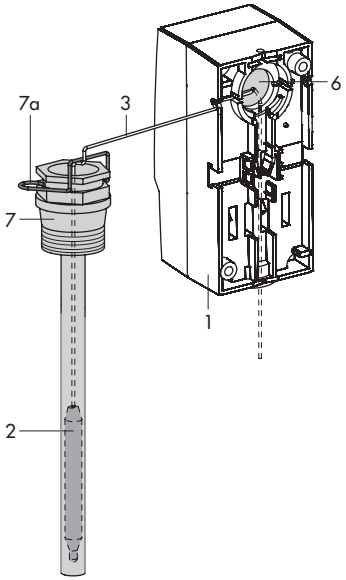
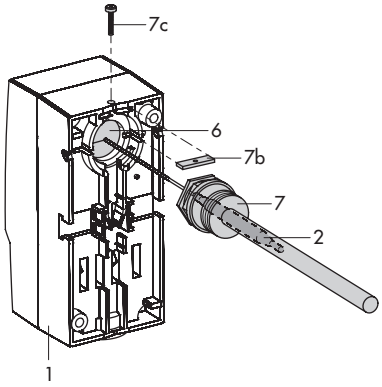


Fig. 5-6: *Wall mounting (capillary tube in the thermowell)*



1 Thermostat
2 Sensor
3 Capillary tube
6 Seal
7 Thermowell
7a Clip
7b Metal plate
7c Screw

Fig. 5-7: *Mounting on tanks or in pipes*

5.5 Electrical connection

⚠ DANGER

Risk of fatal injury due to electric shock.

- ➔ *Upon installation of the electric cables, you are required to observe the regulations concerning low-voltage installations according to DIN VDE 0100 as well as the regulations of your local power supplier.*
- ➔ *Only use a suitable supply voltage which guarantees that no dangerous voltages reach the device in normal operation and in the event of a fault in the system or any other system parts.*
- ➔ *Connect the grounding conductor to the PE terminal.*
- ➔ *Route wires of double thermostats through the opening in the intermediate wall to the second thermostat.*
- ➔ *Seal the opening not used for cable entry with a blanking cap.*

Cable entry

- ➔ Route the wires through the cable gland (M20x1.5) into the inside of the thermostat.

The thermostat is equipped with a spring terminal. The wires for connection must have a cross-section between 0.75 and 2.5 mm².

Wiring

Open the thermostat housing and wire the thermostat according to Fig. 5-8.

Rigid wire ends:

- ➔ Strip 11 to 13 mm insulation off the cable and place it into the terminal point (◯◯) as far it will go.

Flexible wire ends without ferrules:

- ➔ Use a slotted screwdriver to keep the spring open (in □) and place the wire ends into the terminal point (◯◯) as far they will go.

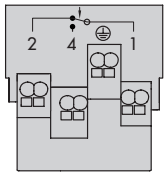
Flexible wire ends with ferrules:

- ➔ Fit ferrules to the wire ends (see EN 60947-1).
  Use a suitable crimping tool.
  Place the wire ends into the terminal point (◯◯) as far they will go.

i ***Note***

The wire ends can be pulled out by holding the spring open with a slotted screwdriver (in □).

NC contact **1 – 2**
NO contact **1 – 4**



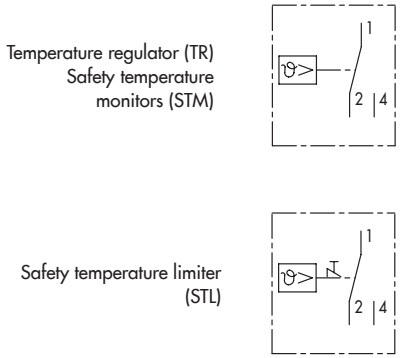
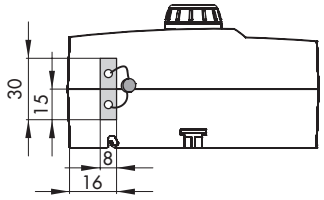


Fig. 5-8: *Electrical connection*



Dimensions in mm

Fig. 5-9: *Side view with lead sealing attached*

5.6 Attaching the lead sealing

NOTICE

Impaired thermostat functioning due to incorrectly attached lead sealing.

➔ *Only lead-seal in the gray-colored area.*

Note

Drill the holes for lead sealing. The lead-seal is not included in the scope of delivery.

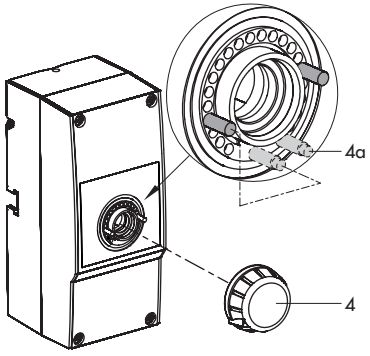
6 Operation

6.1 Temperature regulators (TR)

Adjust the set point at the set point adjuster (4).

Limiting the set point range

The lower range value and upper range value of the set point range can be limited.



4 Set point adjuster
4a Pin to limit the set point range

Fig. 6-1: *Temperature setting (TR)*

1. Turn the set point adjuster (4) to a value within the required temperature range.
2. Pull the set point adjuster (4) off the temperature regulator.
3. Break off the pin (4a).
4. Insert the pin (4a) at the point where the temperature is to be limited (min./max. temperature).
5. Place the set point adjuster back on the temperature regulator.

6.2 Safety temperature monitors (STM)

Open the thermostat housing and adjust the set point using a flat-blade screwdriver.

6.3 Safety temperature limiters (STL)

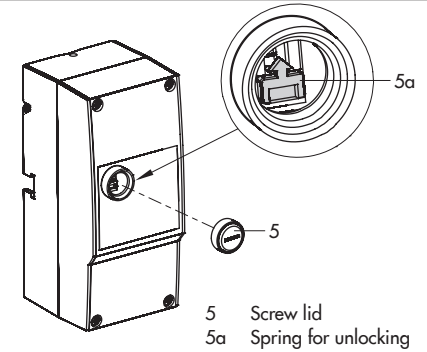
Open the thermostat housing and adjust the set point using a flat-blade screwdriver.

Unlocking safety temperature limiters

i ***Note***

The safety temperature limiter can only be reset after the temperature has fallen below the adjusted limit by approximately 10 %.

Use a flat-blade screwdriver to unlock the thermostat.



5 Screw lid
5a Spring for unlocking

Fig. 6-2: *Unlocking the STL*

1. Unscrew the screw lid (5).
2. Use a flat-blade screwdriver to move the spring (5a) from the bottom to the top as far as it will go.

7 Start-up

After correct mounting and connection of the wiring as described in the 'Installation' section, the thermostat is ready to use.

8 Operation

After being mounted correctly and start-up, the thermostat is ready for use.

8.1 Safety temperature monitors (STM)

The contact switches when the temperature exceeds the adjusted temperature.

The contact returns to its original position after the temperature falls below the adjusted temperature by 8 K.

The contact switches automatically after the temperature falls below –20 °C.

The STM is triggered when the capillary tube breaks.

8.2 Temperature regulators (TR)

The contact switches when the temperature exceeds the adjusted temperature.

The contact returns to its original position after the temperature falls below the adjusted temperature by 4 K.

8.3 Safety temperature limiters (STL)

The contact switches and is locked when the temperature exceeds the adjusted temperature.

The contact switches automatically at a temperature of –20 °C.

i ***Note***

The safety temperature limiter can only be reset after the temperature has fallen below the adjusted limit by approximately 10 %.

The STL is triggered and locked when the capillary tube breaks.

9 Malfunctions

➔ Troubleshooting (see Table 9-1).

i ***Note***

Contact SAMSON's After-sales Service for malfunctions not listed in the table.

Table 9-1: *Troubleshooting*

Error	Possible reasons	Recommended action
Thermostat does not switch	Set point setting incorrect	➔ Check the set point setting (see the 'Operation' section).
	Temperature below set point	➔ Find reason for why the temperature is higher.
	Safety temperature limiter (STL) is locked after being triggered too early.	➔ Unlock the safety temperature limiter (see the 'Operation' section).
	Safety temperature monitor (STM) and safety temperature limiter (STL): medium temperature drops below –20 °C.	➔ No action necessary. The function of the safety temperature monitor (STM) and safety temperature limiter (STL) is restored after the medium temperature rises again above –20 °C.
	Temperature sensor cannot measure the temperature of the medium.	➔ Check the installation and point of installation of the thermostat (see the 'Installation' section).
	Thermostat not correctly attached	➔ Check the attachment (see the 'Installation' section). ➔ Check contact to the medium.
	Incorrect mounting position of the contact thermostat	➔ Do not install the contact thermostat in the suspended position with the bottom of the housing (containing the sensor) facing upwards. Mounting (see the 'Installation' section).
	Incorrect electrical connection	➔ Check the cable entry and electrical connection (see Mounting and Operating Instructions EB 5206)
	Capillary tube ruptured	➔ Replace thermostat.
	Lead sealing attached incorrectly	➔ Check the position of the lead sealing (see Mounting and Operating Instructions EB 5206).

9.1 Emergency action

The thermostat reacts after the measured temperature in the plant exceeds the adjusted set point (see the 'Design and principle of operation' section). Usually, this action causes a valve in the plant to be closed by a safety device to prevent the temperature rising above a certain temperature.

Plant operators are responsible for emergency action to be taken in the plant.

Tip

Emergency action in the event of valve failure is described in the associated valve documentation.

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10 Servicing

i ***Note***

The thermostat was checked by SAMSON before it left the factory.

– The product warranty becomes void if service or repair work not described in these instructions is performed without prior agreement by SAMSON's After-sales Service.

The thermostat does not require any maintenance.

We recommend inspection and testing according to Table 10-1.

Table 10-1: *Recommended inspection and testing*

Inspection and testing	Action to be taken in the event of a negative result
Check the markings, labels and nameplates on the thermostat for their readability and completeness.	➔ Immediately renew damaged, missing or incorrect nameplates or labels.
	➔ Clean any inscriptions that are covered with dirt and are illegible.
Check the electric wiring.	➔ If any wires are loose, reconnect them (see the 'Installation' section).
	➔ Renew damaged wires.

11 Decommissioning

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

⚠ DANGER

Risk of fatal injury due to electric shock.

➔ *Before disconnecting live wires, switch off the supply voltage at the thermostat and protect it against unintentional reconnection.*

⚠ WARNING

Risk of personal injury due to residual process medium inside the pipeline.

While working on the thermostat or thermowell, residual process medium can escape and, depending on its properties, may lead to personal injury, e.g. (chemical) burns.

➔ *Wear protective clothing, safety gloves and eye protection.*

⚠ WARNING

Risk of burn injuries due to hot or cold components and pipeline.

The thermowell and pipeline may become very hot or cold. Risk of burn injuries.

➔ *Allow components and pipelines to cool down or warm up to the ambient temperature.*

➔ *Wear protective clothing and safety gloves.*

To decommission the thermostat before removing it, proceed as follows:

➔ Shut off the process medium.

➔ If necessary, put the plant (sections) out of operation (see associated documentation).

➔ Allow sufficient time for any parts that can be touched to cool down.

➔ Disconnect the supply voltage and protect it against unintentional reconnection.

12 Removal

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

⚠ DANGER

Risk of fatal injury due to electric shock.

➔ *Before disconnecting live wires, switch off the supply voltage at the thermostat and protect it against unintentional re-connection.*

! NOTICE

Risk of thermostat malfunction due to measuring fluid escaping upon breakage of the capillary tube.

➔ *Do not bend or damage the capillary tube.*

12.1 Contact thermostat

1. Pull off the set point adjuster (TR only).
2. Unscrew the front cover.
3. Disconnect the electrical wires.
4. Undo the strap.

12.2 Wall mounting

1. Pull off the set point adjuster (TR only).
2. Unscrew the front cover.
3. Disconnect the electrical wires.
4. Undo the clip used to the capillary tube.
5. Pull the sensor with capillary tube out of the thermowell.
6. Unscrew the fastening screws.

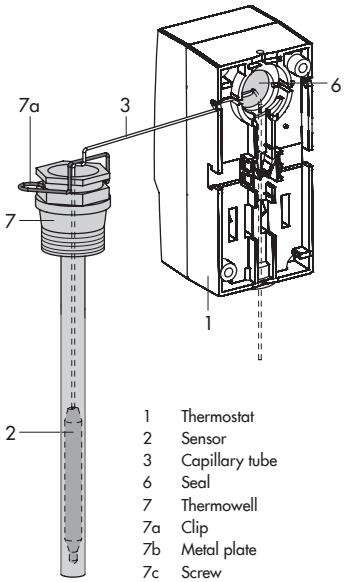
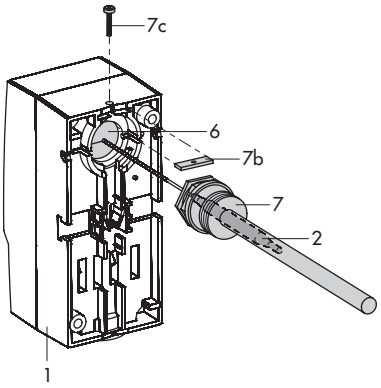


Fig. 12-1: *Capillary tube with thermowell*

12.3 Thermostat mounted on the thermowell

1. Pull off the set point adjuster (TR only).
2. Unscrew the front cover.
3. Disconnect the electrical wires.
4. Unscrew the screw (7c).
5. Push the thermostat approx. 2 mm lengthways away from the SAMSON logo to detach it from the thermowell.
6. Pull the sensor with capillary tube out of the thermowell.



1 Thermostat
2 Sensor
3 Capillary tube
6 Seal
7 Thermowell
7a Clip
7b Metal plate
7c Screw

Fig. 12-2: *Thermostat on the thermowell*

13 Repairs

If the thermostat does not function properly according to how it was originally configured or does not function at all, it is defective and must be exchanged.

NOTICE

Risk of thermostat damage due to incorrect service or repair work.

➔ *Do not perform any repair work on your own.*

➔ *Contact SAMSON's After-sales Service.*

13.1 Sending the thermostat to SAMSON

Defective thermostats can be returned to SAMSON for examination.

Proceed as follows to return thermostats:

1. Remove the thermostat (see the 'Removal' section).
2. Continue as described on our website at ▶ www.samsongroup.com > Service & Support > After-sales Service > Returning goods.

14 Disposal

We are registered with the German national register for waste electric equipment (stiftung ear) as a producer of electrical and electronic equipment, WEEE reg. no.: DE 62194439

➔ Observe local, national and international refuse regulations.

➔ Do not dispose of components, lubricants and hazardous substances together with your other household waste.

Tip

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

15 Certificates

The following certificates are included on the next pages:

– EU declarations of conformity

– TR CU certificate

The certificates shown were up to date at the time of publishing. The latest certificates can be found on the corresponding product page on our website:

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5343-1

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5343-2

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5343-3

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5343-4

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5344-1

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5344-2

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▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5347-2

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5348-1

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5348-2

▶ www.samsongroup.com > Products & Applications > Product selector > Sensors and Thermostats > 5349-1

EU declarations of conformity for Types 5343 and 5344

SMART IN FLOW CONTROL

SAMSON

EU Konformitätserklärung / EU Declaration of Conformity / Déclaration UE de conformité

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller/
This declaration of conformity is issued under the sole responsibility of the manufacturer/
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
Für das folgende Produkt / For the following product / Nous certifions que le produit

Sicherheitstemperaturwächter (STW) / Safety Temperatur Monitor (STW) / Contrôleur de température de sécurité (STW)
Typ/Type/Type 5343

wird die Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt /
the conformity with the relevant Union harmonisation legislation is declared with/
est conforme à la législation d'harmonisation de l'Union applicable selon les normes:

EMC 2014/30/EU	61000-6-2:2005, EN 61000-6-3:2007 +A1:2011, EN 61326-1:2013
LVD 2014/35/EU	EN 60730-1:2016, EN 61010-1:2010
RoHS 2011/65/EU	EN 50581:2012

Hersteller / Manufacturer / Fabricant:

SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2017-07-29
Im Namen des Herstellers/ On behalf of the Manufacturer/ Au nom du fabricant.

i.V. Gert Nahler — Gert Nahler, Zentralabteilungsleiter/Head of Department/Chef du département Entwicklung Automation und Integrationstechnologien/ Development Automation and Integration Technologies

i.V. H. Zager — Hanno Zager, Leiter Qualitätssicherung/Head of Quality Management/ Responsable de l'assurance de la qualité

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Für das folgende Produkt / For the following product / Nous certifions que le produit

Temperaturregler (TR) / Temperature Controller (TR) / Régulateur de température (TR)
Typ/Type/Type 5344

wird die Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt /
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est conforme à la législation d'harmonisation de l'Union applicable selon les normes:

EMC 2014/30/EU	61000-6-2:2005, EN 61000-6-3:2007 +A1:2011, EN 61326-1:2013
LVD 2014/35/EU	EN 60730-1:2016, EN 61010-1:2010
RoHS 2011/65/EU	EN 50581:2012

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SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2017-07-29
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i.V. H. Zager — Hanno Zager, Leiter Qualitätssicherung/Head of Quality Management/ Responsable de l'assurance de la qualité

EU declarations of conformity for Types 5345 and 5347

SMART IN FLOW CONTROL

SAMSON

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La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
Für das folgende Produkt / For the following product / Nous certifions que le produit

Sicherheitstemperaturbegrenzer (STB) / Safety Temperatur Limiter (STB) / Limiteur de température de sécurité (STB)
Typ/Type/Type 5345

wird die Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt /
the conformity with the relevant Union harmonisation legislation is declared with/
est conforme à la législation d'harmonisation de l'Union applicable selon les normes:

EMC 2014/30/EU	61000-6-2:2005, EN 61000-6-3:2007 +A1:2011, EN 61326-1:2013
LVD 2014/35/EU	EN 60730-1:2016, EN 61010-1:2010
RoHS 2011/65/EU	EN 50581:2012

Hersteller / Manufacturer / Fabricant:

SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2017-07-29
Im Namen des Herstellers/ On behalf of the Manufacturer/ Au nom du fabricant.

Gert Nahler
Zentralabteilungsleiter/Head of Department/Chef du département
Entwicklung Automation und Integrationstechnologien/
Development Automation and Integration Technologies

Hanno Zager
Leiter Qualitätssicherung/Head of Quality Management/
Responsable de l'assurance de la qualité

SMART IN FLOW CONTROL

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This declaration of conformity is issued under the sole responsibility of the manufacturer/
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
Für das folgende Produkt / For the following product / Nous certifions que le produit

Doppelthermostat TR/STB / Double Thermostat TR/STB / Thermostat double TR/STB
Typ/Type/Type 5347

wird die Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt /
the conformity with the relevant Union harmonisation legislation is declared with/
est conforme à la législation d'harmonisation de l'Union applicable selon les normes:

EMC 2014/30/EU	61000-6-2:2005, EN 61000-6-3:2007 +A1:2011, EN 61326-1:2013
LVD 2014/35/EU	EN 60730-1:2016, EN 61010-1:2010
RoHS 2011/65/EU	EN 50581:2012

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Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2017-07-29
Im Namen des Herstellers/ On behalf of the Manufacturer/ Au nom du fabricant.

Gert Nahler
Zentralabteilungsleiter/Head of Department/Chef du département
Entwicklung Automation und Integrationstechnologien/
Development Automation and Integration Technologies

Hanno Zager
Leiter Qualitätssicherung/Head of Quality Management/
Responsable de l'assurance de la qualité

EU declarations of conformity for Types 5348 and 5349

SMART IN FLOW CONTROL

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This declaration of conformity is issued under the sole responsibility of the manufacturer/
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
Für das folgende Produkt / For the following product / Nous certifions que le produit

Doppeltthermostat TR/STW / Double Thermostat TR/STW / Thermostat double TR/STW
Typ/Type/Type 5348

wird den Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt/
the conformity with the relevant Union harmonisation legislation is declared with/
est conforme à la législation d'harmonisation de l'Union applicable selon les normes.

EMC 2014/30/EU	61000-6-2:2005, EN 61000-6-3:2007 +A1:2011, EN 61326-1:2013
LVD 2014/35/EU	EN 60730-1:2016, EN 61010-1:2010
RoHS 2011/65/EU	EN 50581:2012

Hersteller / Manufacturer / Fabricant:

SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2017-01-29
Im Namen des Herstellers/ On behalf of the Manufacturer/ Au nom du fabricant

i.V. Gert Nolte

Gert Nolten
Zentralabteilungsleiter Produktentwicklung/Head of Department Development
Abteilung Antriebe und Magnetventile/Head of Division Actuators and Solenoid Valves
Responsable de l'ingénierie de la qualité

i.V. H. Zogu

Hanno Zogu
Leiter Qualitätsmanagement/Head of Quality Management
Responsable de l'assurance de la qualité

SAMSON AKTIENGESELLSCHAFT · Weismüllerstraße 3 · 60314 Frankfurt am Main · Telefon: 069 4009-0 · Telefax: 069 4009-1507 · thomsen07

SMART IN FLOW CONTROL

SAMSON

EU Konformitätserklärung / EU Declaration of Conformity / Déclaration UE de conformité

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller/
This declaration of conformity is issued under the sole responsibility of the manufacturer/
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
Für das folgende Produkt / For the following product / Nous certifions que le produit

Doppeltthermostat STW/STB / Double Thermostat STW/STB / Thermostat double STW/STB
Typ/Type/Type 5349

wird den Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt/
the conformity with the relevant Union harmonisation legislation is declared with/
est conforme à la législation d'harmonisation de l'Union applicable selon les normes.

EMC 2014/30/EU	61000-6-2:2005, EN 61000-6-3:2007 +A1:2011, EN 61326-1:2013
LVD 2014/35/EU	EN 60730-1:2016, EN 61010-1:2010
RoHS 2011/65/EU	EN 50581:2012

Hersteller / Manufacturer / Fabricant:

SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2017-01-29
Im Namen des Herstellers/ On behalf of the Manufacturer/ Au nom du fabricant

i.V. Gert Nolte

Gert Nolten
Zentralabteilungsleiter Produktentwicklung/Head of Department Development
Abteilung Antriebe und Magnetventile/Head of Division Actuators and Solenoid Valves
Responsable de l'ingénierie de la qualité

i.V. H. Zogu

Hanno Zogu
Leiter Qualitätsmanagement/Head of Quality Management
Responsable de l'assurance de la qualité

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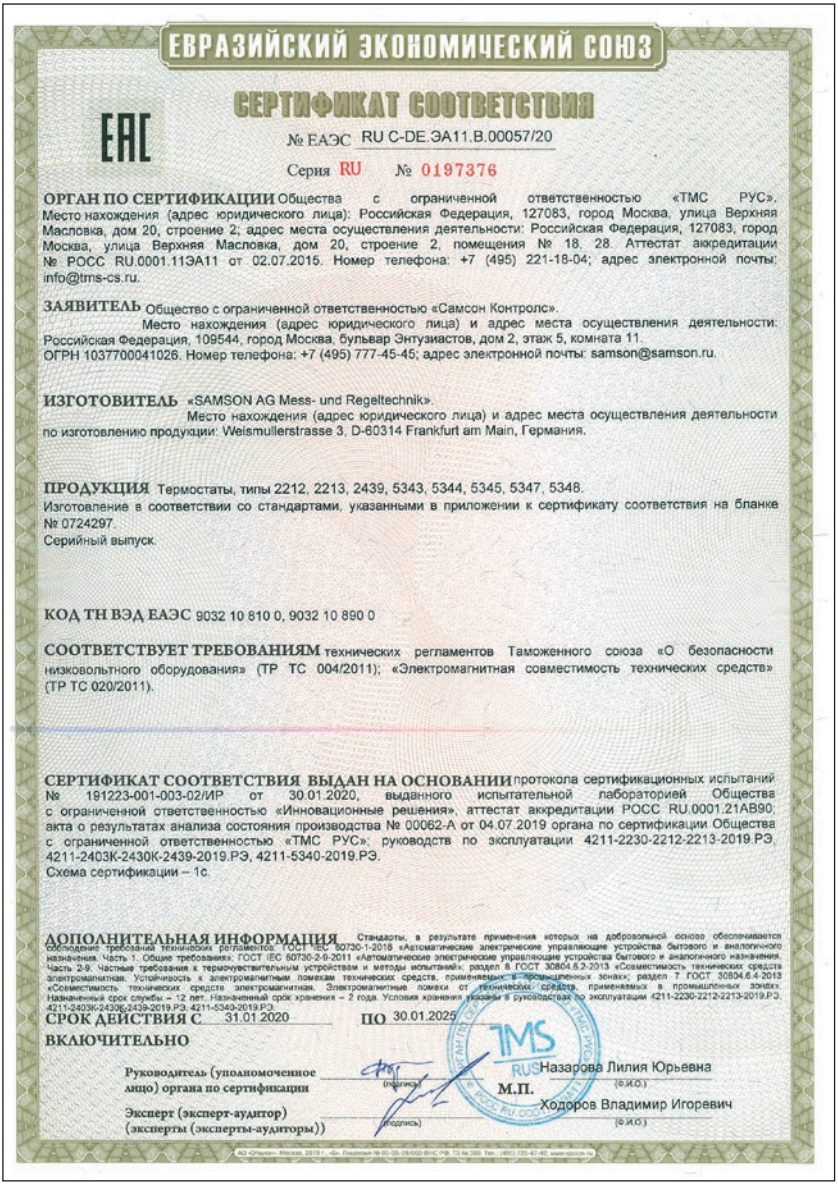
TR CU certificate



ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

СЕРТИФИКАТ СООТВЕТСТВИЯ

EAC

№ ЕАЭС RU C-DE.ЭА11.В.00057/20

Серия RU № 0197376

ОРГАН ПО СЕРТИФИКАЦИИ Общества с ограниченной ответственностью «ТМС РУС». Место нахождения (адрес юридического лица): Российская Федерация, 127083, город Москва, улица Верхняя Масловка, дом 20, строение 2; адрес места осуществления деятельности: Российская Федерация, 127083, город Москва, улица Верхняя Масловка, дом 20, строение 2, помещения № 18, 28. Аттестат аккредитации № РОСС RU.0001.11ЭА11 от 02.07.2015. Номер телефона: +7 (495) 221-18-04; адрес электронной почты: info@tms-cs.ru.

ЗАЯВИТЕЛЬ Общество с ограниченной ответственностью «Самсон Контролс». Место нахождения (адрес юридического лица) и адрес места осуществления деятельности: Российская Федерация, 109544, город Москва, бульвар Энтузиастов, дом 2, этаж 5, комната 11. ОГРН 1037700041026. Номер телефона: +7 (495) 777-45-45; адрес электронной почты: samson@samson.ru.

ИЗГОТОВИТЕЛЬ «SAMSON AG Mess- und Regeltechnik». Место нахождения (адрес юридического лица) и адрес места осуществления деятельности по изготовлению продукции: Weismullerstrasse 3, D-60314 Frankfurt am Main, Германия.

ПРОДУКЦИЯ Термостаты, типы 2212, 2213, 2439, 5343, 5344, 5345, 5347, 5348. Изготовление в соответствии со стандартами, указанными в приложении к сертификату соответствия на бланке № 0724297. Серийный выпуск.

КОД ТН ВЭД ЕАЭС 9032 10 810 0, 9032 10 890 0

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ технических регламентов Таможенного союза «О безопасности низковольтного оборудования» (ТР ТС 004/2011); «Электромагнитная совместимость технических средств» (ТР ТС 020/2011).

СЕРТИФИКАТ СООТВЕТСТВИЯ ВЫДАН НА ОСНОВАНИИ протокола сертификационных испытаний № 191223-001-003-02/ИР от 30.01.2020, выданного испытательной лабораторией Общества с ограниченной ответственностью «Инновационные решения», аттестат аккредитации РОСС RU.0001.21АВ90; акта о результатах анализа состояния производства № 00062-А от 04.07.2019 органа по сертификации Общества с ограниченной ответственностью «ТМС РУС»; руководств по эксплуатации 4211-2230-2212-2213-2019.РЭ, 4211-2403К-2430К-2439-2019.РЭ, 4211-5340-2019.РЭ.
Схема сертификации – 1с

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Стандарты, в результате применения которых на добровольной основе обеспечивается соблюдение требований технических регламентов: ГОСТ IEC 60730-1-2018 «Автоматические электрические управляющие устройства бытового и аналогичного назначения. Часть 1. Общие требования»; ГОСТ IEC 60730-2-9-2011 «Автоматические электрические управляющие устройства бытового и аналогичного назначения. Часть 2-9. Частные требования к термочувствительным устройствам и методы испытаний»; раздел 8 ГОСТ 30804.6.2-2013 «Совместимость технических средств электромагнитная. Устойчивость к электромагнитным помехам технических средств, применяемых в промышленных зонах»; раздел 7 ГОСТ 30804.6.4-2013 «Совместимость технических средств электромагнитная. Электромагнитные помехи от технических средств, применяемых в промышленных зонах». Назначенный срок службы – 12 лет. Назначенный срок хранения – 2 года. Условия хранения указаны в руководствах по эксплуатации 4211-2230-2212-2213-2019.РЭ, 4211-2403К-2430К-2439-2019.РЭ, 4211-5340-2019.РЭ.

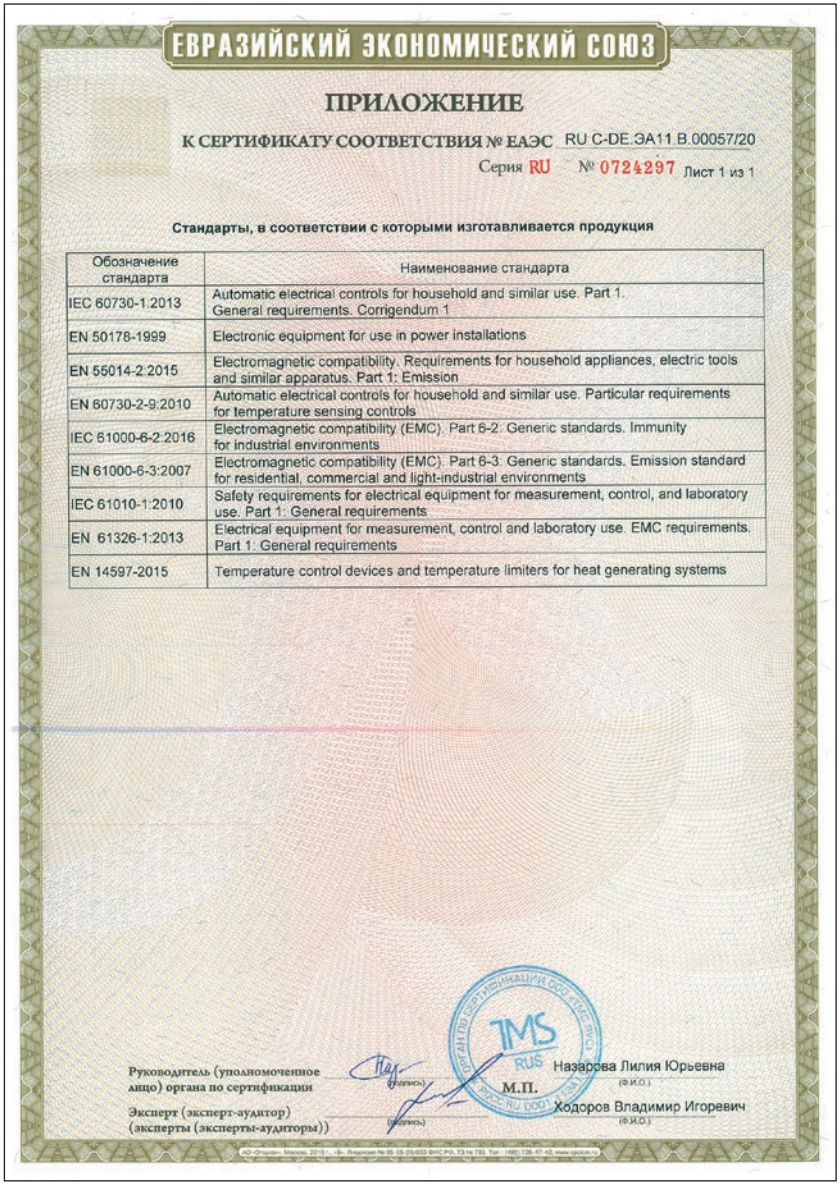
СРОК ДЕЙСТВИЯ С 31.01.2020 **ПО** 30.01.2025

ВКЛЮЧИТЕЛЬНО

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Назарова Лилия Юрьевна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Ходоров Владимир Игоревич (Ф.И.О.)



ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

ПРИЛОЖЕНИЕ

К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ЕАЭС RU C-DE.ЭА11.В.00057/20

Серия RU № 0724297 Лист 1 из 1

Стандарты, в соответствии с которыми изготавливается продукция

Обозначение стандарта	Наименование стандарта
IEC 60730-1:2013	Automatic electrical controls for household and similar use. Part 1. General requirements. Corrigendum 1
EN 50178-1999	Electronic equipment for use in power installations
EN 55014-2:2015	Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Part 1: Emission
EN 60730-2-9:2010	Automatic electrical controls for household and similar use. Particular requirements for temperature sensing controls
IEC 61000-6-2:2016	Electromagnetic compatibility (EMC). Part 6-2: Generic standards. Immunity for industrial environments
EN 61000-6-3:2007	Electromagnetic compatibility (EMC). Part 6-3: Generic standards. Emission standard for residential, commercial and light-industrial environments
IEC 61010-1:2010	Safety requirements for electrical equipment for measurement, control, and laboratory use. Part 1: General requirements
EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use. EMC requirements. Part 1: General requirements
EN 14597-2015	Temperature control devices and temperature limiters for heat generating systems

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Назарова Лилия Юрьевна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Ходоров Владимир Игоревич (Ф.И.О.)

16 Annex

16.1 Accessories

The thermostat is supplied without a thermowell. The following thermowells are available for single and double thermostats as accessories:

Thermowell for single thermostat	Max. pressure at 150 °C	Order no.
Nickel-plated brass · CuZn (2.0401)		
100x8 mm	48 bar	1400-9844
150x8 mm	48 bar	1400-9845
200x8 mm	48 bar	1400-9846
CrNiMo steel (1.4571)		
100x8 mm	88 bar	1400-9848
150x8 mm	88 bar	1400-9849
300x8 mm	88 bar	1400-9850

Thermowell for double thermostat	Max. pressure at 150 °C	Order no.
Nickel-plated brass · CuZn (2.0401)		
100 x (2x 8) mm	48 bar	1400-9901
150 x (2x 8) mm	48 bar	1400-9851
CrNiMo steel (1.4571)		
100x15 mm	48 bar	1402-0340
150x15 mm	48 bar	1400-9853
300x15 mm	48 bar	1400-9854

i ***Note***

The scope of delivery of the thermowell includes:

– A clip to fasten the capillary tube to the thermowell (see the 'Installation' section)

– A small metal plate with screw to attach the thermostat to the thermowell (see the 'Installation' section)

Strap	
Strap for mounting the contact thermostat (15 to 100 mm pipe diameter)	Order no. 1400-9865

16.2 After-sales service

Contact our after-sales service for support concerning service or repair work or when malfunctions or defects arise.

E-mail contact

You can reach our after-sales service at ▶ aftersalesservice@samsongroup.com.

Addresses of SAMSON AG and its subsidiaries

The addresses of SAMSON, its subsidiaries, representatives and service facilities worldwide can be found on our website (▶ www.samsongroup.com) or in all SAMSON product catalogs.

Required specifications

Please submit the following details:

- Type
- Configuration ID
- Serial number

EB 5206 EN

SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3 · 60314 Frankfurt am Main, Germany
Phone: +49 69 4009-0 · Fax: +49 69 4009-1507
samson@samsongroup.com · www.samsongroup.com

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