

## ATH2070 Safety Temperature Limiter

### Application

The ATH2070 is DIN type-tested and is used for monitoring and limiting the temperature in heating and ventilation system pipelines.

The ATH2070 is equipped with two separate capillary measuring systems for safety temperature monitors (STM) and safety temperature limiters (STL), each with separately adjustable switching outputs.



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Änderungen vorbehalten - Contents subject to change - Sous réserve de modifications - Reservado el derecho a modificación - Wijzigingen voorbehouden - Con riserva di modifichie - Innehåll som skall ändras - Změny vyhrazeny - Zmiany zastrzeżone - Возможны изменения - A változtatások jogát fenntartjuk - 保留未经通知而改动的权力

## Important Information Regarding Product Safety

### Safety Instructions

This data sheet contains information on installing and commissioning the product "ATH2070 Safety Temperature Limiter". Each person who carries out work on this product must have read and understood this data sheet. If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.

If the product is not used in accordance with this data sheet, the protection provided will be impaired.

Applicable regulations must be observed when installing and using the device. Within the EU, these include regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies). If the device is used in other countries, it is the responsibility of the system installer or operator to comply with local regulations.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. Qualified technicians are persons who are familiar with the described product and who can assess given tasks and recognize possible dangers due to technical training, knowledge and experience as well as knowledge of the appropriate regulations.

### Meaning of the Symbols



#### WARNING

Indicates a hazard of medium risk which can result in death or severe bodily injury if it is not avoided.



#### CAUTION

Indicates a hazard of low risk which can result in minor or medium bodily injury if it is not avoided.



#### NOTICE

Indicates a hazard of medium risk which can result in material damage or malfunctions if it is not avoided.



#### Note

Indicates additional information that can simplify the work with the product for you.

### Notes on Disposal

For disposal, the product is considered waste from electrical and electronic equipment (electronic waste) and must not be disposed of as household waste. Special treatment for specific components may be legally binding or ecologically sensible. The local and currently applicable legislation must be observed.

**Product Description****ATH2070 Safety Temperature Limiter****Item**

ATH2070	safety temperature monitor and safety temperature limiter, temperature range 30 °C to 110 °C, 120 mm thermowell
ATH2070/2	As 2070, but with a 200 mm thermowell
ATH2070/90	As ATH2070, but with a temperature range of 0 °C to 90 °C
ATH2070/120	As ATH2070, but with a temperature range of 0 °C to 120 °C

**Technical Data**

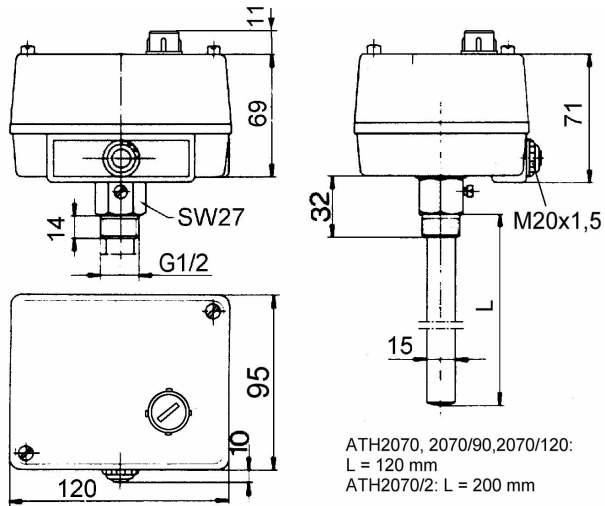
Output	1 changeover switch for STM, max. AC 230 V, 10 (2)A 1 break contact for STL, max. AC 230 V, 10 (2)A Switching difference for changeover switch approx. 5 K
Thermowell	Brass, Ø 15 mm; G½; PN 16 ATH2070/2 = 200 mm (nickel-plated brass) ATH2070; ATH2070/90; ATH2070/120 = 120 mm
Measuring element	Two separate self-monitoring capillary measuring systems for STM and STL
Connection	Screw terminals
Cover pins	Lead-sealable screws
Certification	Tested according to DIN EN 14597:2005-12 Registration number STM(STL)/STL90607S
Degree of protection	IP 54
Ambient temperature	Max. 80 °C at the switch button
Weight	0.76 kg

**Accessories**

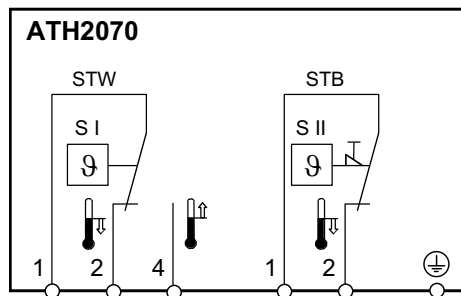
Not included in delivery.

Z8/12	PN40 thermowell for ATH2070, ATH2070/90, ATH2070/120 Stainless steel 1.4571; Ø 15 mm; 120 mm; G½
Z8/20	PN40 thermowell for ATH2070/2 Stainless steel 1.4571; Ø 15 mm; 200 mm; G½

Dimensions



## Connection



## Mounting and Installation



### WARNING

Contact with live parts of electrical domestic installation can cause death due to electric shock.

Only connect the device and switch on the power supply if you are qualified to do so. Be sure to comply with VDE guidelines and local wiring regulations.



### NOTICE

In addition to the generally valid installation guidelines for working on pipelines, the following must be observed:

- There may be no temperature stratifications in the pipeline at the installation location.
- The medium must flow freely around the entire thermowell with the capillary measuring system, and must face against the direction of flow. A pipe elbow is an ideal installation location.
- Use a wrench (27 mm) to secure the thermowell shaft (G $\frac{1}{2}$ ).
- In order to prevent moisture (condensate/pipe leakage) from entering the connection housing, the cable entry should point downwards.  
If that is not possible, make a downward-facing loop in the connection cable.

**Adjusting the Nominal Value**

- Switch off the mains power supply.
- Remove the cover (2 screws).
- Set the limiting value (switch point) for the safety temperature monitor (STM) on the setting screw using a screwdriver.
- Set the limiting value for the safety temperature limiter (STL) on the setting screw using a screwdriver.
- Replace the cover and screw tightly into place.

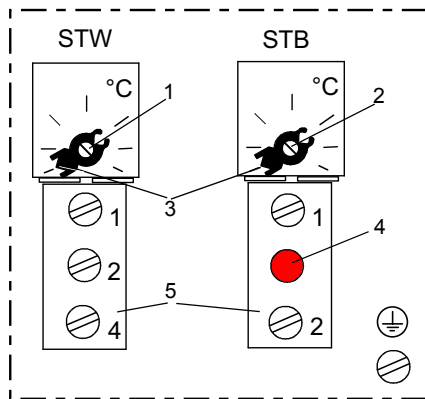


**NOTICE**

Do not attach the cover the wrong way around. The button in the cover must be positioned above switch II.

- Switch on the mains power supply.

Switch arrangement under the cover



- (1) Setting screw for STM
- (2) Setting screw for STL
- (3) Limiting value display
- (4) Reset button

Switch I (S I)      Switch II (S II)

**Switching Functions**

- Safety temperature monitor (STM)
  - If the temperature rises to or exceeds the set STM limiting value, the changeover switch (switch I) switches from terminals 1 - 2 to 1 - 4.
  - If the temperature falls to approx. 5 K below the nominal value, the changeover switch resets.

- Safety temperature limiter (STL)
  - If the temperature rises to or exceeds the STL limiting value, the break contact is switched off and locked (switch II, terminals 1 - 2). The red reset button on switch II pops out. The switch system can only be unlocked after the temperature falls below the STL limiting value.

**The system is only unlocked when the cover is attached:** Let the temperature cool down. Unscrew the protective cap on the cover and press the button. Reattach the protective cap afterwards.

The measuring system is self-monitoring. This means that the same switching function is made when the capillary measuring system is interrupted as when the limiting values are reached.