AGS54+

Outdoor temperature sensor

thermokon®
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
Issue date: 31.03.2022 • A122

» APPLICATION

For measuring temperature in outdoor areas, in cold stores and greenhouses, production plants and warehouses. Designed for locking on control and display systems.

» TYPES AVAILABLE

Outdoor sensor temperature – passive
AGS54+ <sensor>

<sensor>: PT100/PT1000/NI1000/NI1000TK5000/LM235Z/NTC.../PTC...other sensors on request

» SECURITY ADVICE – CAUTION

The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with
- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

» NOTES ON DISPOSAL

The crossed-out wheelie bin symbol indicates that the product or removable batteries must not be disposed of with household or commercial waste. Within the EU, you are legally obliged to dispose of the product separately and appropriately in accordance with the national laws of your country. Alternatively, please contact your supplier or Thermokon Sensortechnik GmbH. Further information can be found at: www.thermokon.com

» PRODUCT TESTING AND CERTIFICATION

Declaration of conformity
The declaration of conformity of the products are available on our website
https://www.thermokon.de/direct/en-gb/categories/ags54plus

» GENERAL REMARKS CONCERNING SENSORS

Especially with regard to passive sensors in 2-wire conductor versions, the wire resistance of the supply wire has to be considered. If necessary the wire resistance has to be compensated by the follow-up electronics. Due to self-heating, the wire current affects the measurement accuracy, so it should not exceed 1 mA.

When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one for the measuring current.

Sensing devices with a transducer should always be operated in the middle of the measuring range to avoid deviations at the measuring end points. The ambient temperature of the transducer electronics should be kept constant. The transducers must be operated at a constant supply voltage (±0,2 V). When switching the supply voltage on/off, onsite power surges must be avoided.

» USE ENCLOSURE WITH UV AND WEATHER RESISTANCE

After some time, outdoor mounted plastics can lose their color and quality. Therefore, all USE housings are made of special white polycarbonate (PC). The light-stable colorants and additives are used to achieve optimum protection of the polymer while maintaining color stability. The titanium dioxide used is specially developed for polycarbonate and offers excellent UV protection through the reflection of the entire light spectrum including the UV component by 340 nm. This effectively counteracts the otherwise occurring photochemical polymer degradation. The colors stay full for a long time without fading. The material is also resistant to cold and frost.
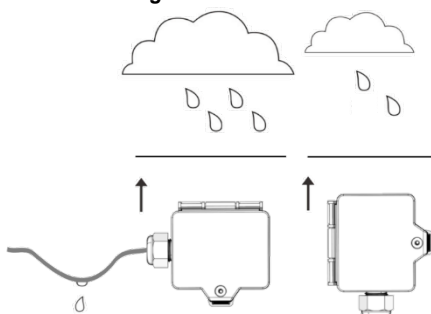
» TECHNICAL DATA

Measuring values	temperature
Output passive	optional, PT100/PT1000/NI1000/NI1000TK5000/LM235Z/NTC.../PTC... other sensors on request
Measuring range temp.	-35..+90 °C
Operating temperature range	Max. permissible operating temperature -35..+90 °C
Accuracy temperature	typ. ±0,3 K (typ. at 21 C°),depending on used sensor
Enclosure	enclosure USE-S, PC, pure white, UV resistent
Protection	IP65 according to EN 60529
Cable entry	Flextherm M20, for wire Ø=4,5..9 mm, removable
Connection electrical	removable plug-in terminal, max. 2,5 mm²
Ambient condition	max. 85% rH short term condensation

»MOUNTING ADVICES

When installing outdoors, avoid direct sunlight and disturbing heat sources. If necessary, use sun or rain protection.
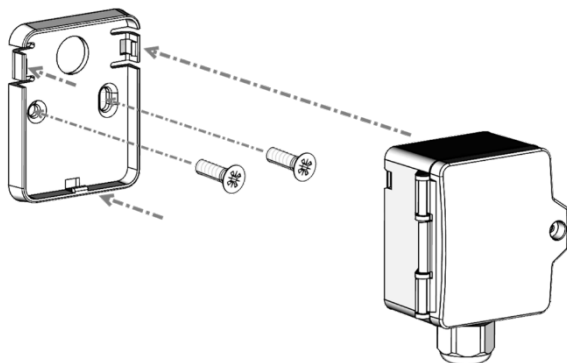*Cable entry from below or from the side. If cable entry is from the side, lay a loop so that precipitation can drain off in a defined manner. The permissible ambient conditions must be observed during use.*
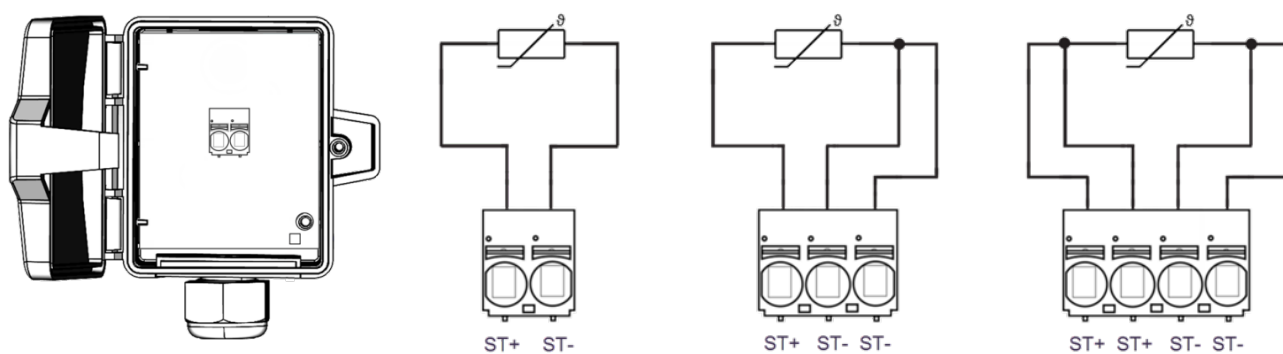
Regardless of the compass direction, the outdoor sensor should not be mounted in the following locations:

- on chimneys, under roofs, canopies or balconies
- in close proximity to an exhaust air opening
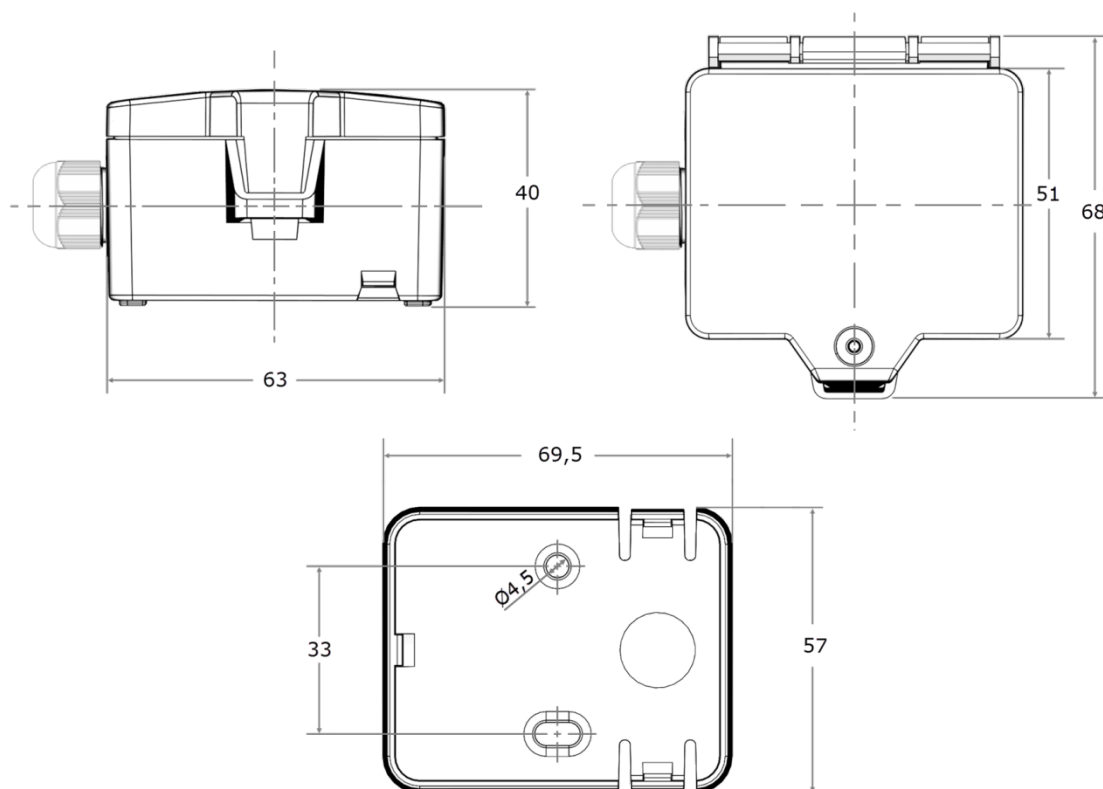- above, below or next to windows and doors

Example: Mounting with mounting base

»CONNECTION PLAN

ST+   ST-   ST+ ST- ST-   ST+ ST+ ST- ST-

»DIMENSIONS (MM)

40

63

51

68

69,5

33

Ø4,5

57

»ACCESSORIES (INCLUDED IN DELIVERY)

Mounting base enclosure USE pure white   Item No. 667722
Mounting kit universal   Item No. 698511
• Cover screw + screw cover• 2 Rawlplugs • 2 Screws (countersunk head) • 2 Screws (rounded head)

»ACCESSORIES (OPTIONAL)

Mounting clip enclosure USE pure white   Item No. 667739
Rawlplugs and screws (2 pcs. each)   Item No. 102209
Sun/rain protection RS150   Item No. 103329
Sealing insert M20 USE white, 2x Ø=7 mm (for 2 wire; PU 10 pieces)   Item No. 641333