

Condensation Switch

For detection of condensation on chilled surfaces (e.g. chilled beams). With relay contact for connection to controller and display systems or for series connection with the cooling valve to interrupt the cold water flow immediately when condensation begins. NEMA 4X / IP65 rated housing.



5-year warranty



Type Overview

| Type | Output signal condensation detector relay | Additional features |
|---------|---|---------------------|
| 22HH-50 | - | Internal Sensor |

Technical data

| | | |
|------------------------|---|--|
| Electrical Data | Nominal voltage | AC/DC 24 V |
| | Nominal voltage range | AC 21.6...26.4 V / DC 13.5...26.4 V |
| | Power consumption AC | 1.6 VA |
| | Power consumption DC | 0.8 W |
| | Electrical connection | Pluggable spring-loaded terminal block max. 2.5 mm ² |
| | Cable entry | Cable gland with strain relief ø6...8 mm (1/2" NPT conduit adapter included) |
| Functional Data | Application | Water |
| | Output signal leakage detector relay note | SPDT, dry contact Max. switching current 1 A @ 24 V Min. switching current 5 mA @ 10 V |
| | Display | LED, Green - Power supply OK Red - condensation |
| Measuring Data | Measured values | Condensation |
| Safety Data | Protection class IEC/EN | III, Protective Extra-Low Voltage (PELV) |
| | Power source UL | Class 2 Supply |
| | Degree of protection IEC/EN | IP65 |
| | Degree of protection NEMA/UL | NEMA 4X |
| | Housing | UL Enclosure Type 4X |
| | EU Conformity | CE Marking |
| | Certification IEC/EN | IEC/EN 60730-1 |
| | Quality Standard | ISO 9001 |
| | UL 2043 Compliant | Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC |
| | Type of action | Type 1.B |
| | Rated impulse voltage supply | 0.8 kV |
| | Pollution degree | 3 |
| | Ambient humidity | Max. 95% RH, non-condensing |
| | Ambient temperature | -4...122°F [-20...50°C] |

Technical data

| | | |
|--------------------|-------------------|--|
| Safety Data | Fluid temperature | -20...60°C [-4...140°F] |
| Materials | Housing | Cover: PC, transparent Bottom: PC, orange Seal: NBR70, black UV resistant UL94 5VA |
| | Cable gland | PA6, black |

Safety Notes



This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application. Unauthorized modifications are prohibited. The product must not be used in relation with any equipment that in case of a failure may threaten humans, animals or assets.

Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Only authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.

The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

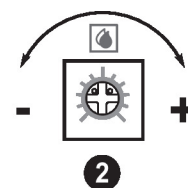
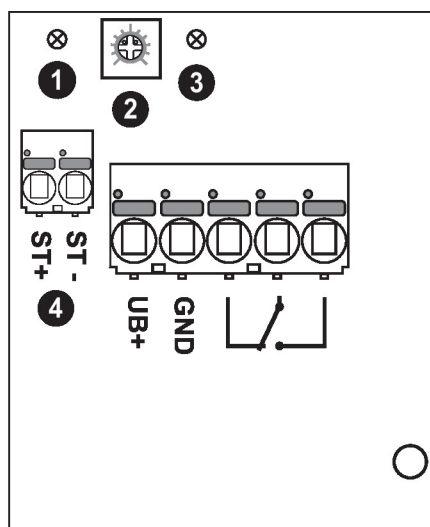
Remarks

| | |
|---|---|
| General Remarks Concerning Sensors | 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 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. |
| Remark on surface measurements | When measuring temperature, humidity or condensation on a surface, both the temperature of the surface and that of the ambient air influence the measurement result. When measuring on a pipe surface, the influence of the ambient air can be minimized by using thermal contact fluid. |

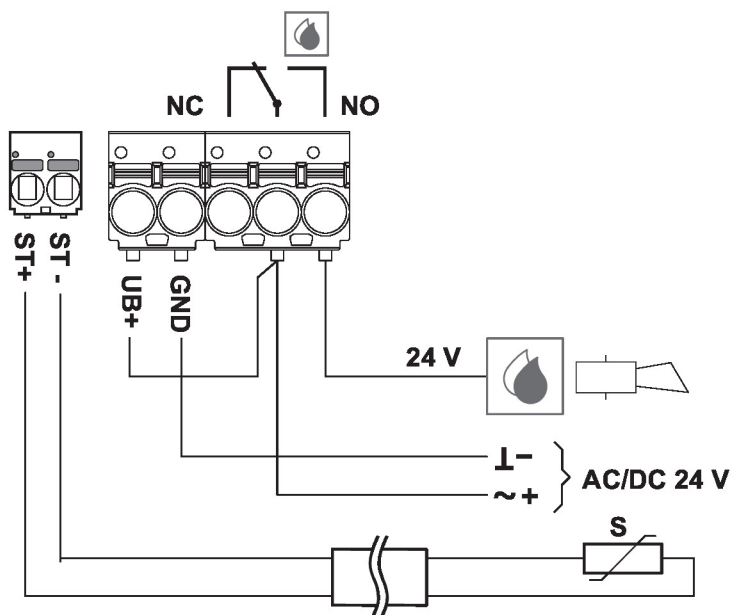
Parts included

| Description | Type |
|--------------------------|-----------|
| Thermal contact fluid | A-22P-A44 |
| Cable tie | |
| 1/2" NPT conduit adapter | |

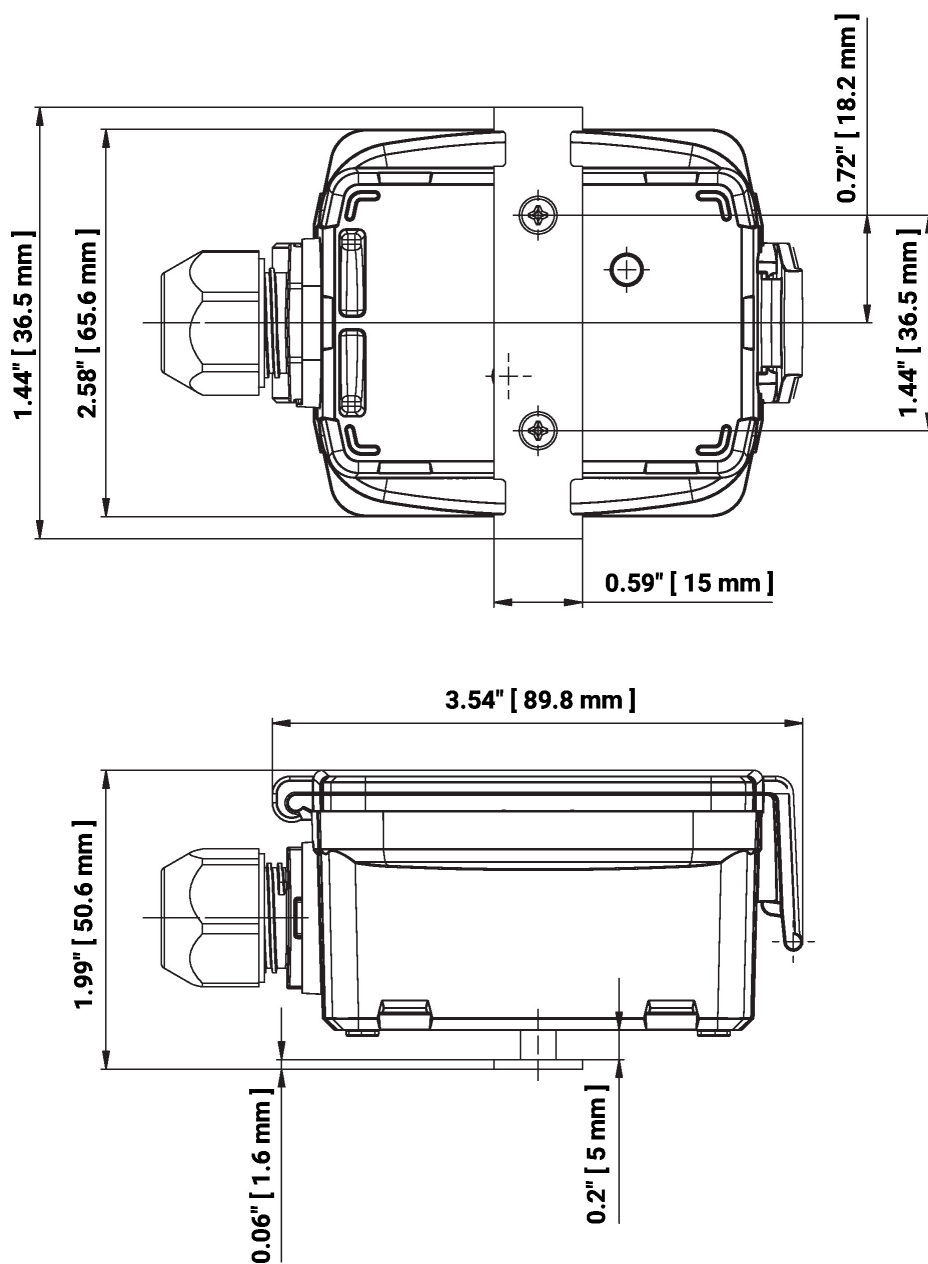
Wiring Diagram



- ① LED red: Condensation
- ② Sensitivity adjustment
+ less sensitive
- more sensitive
- ③ LED green: Power supply OK
- ④ For external condensation sensor



Dimensions



Type

22HH-50

Weight

0.26 lb [0.12 kg]

Further documentation

- Installation instructions