

**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 directly when condensation begins. NEMA 4X / IP65 rated enclosure.


**Type Overview**

| Type      | Output signal<br>condensation detector<br>relay | Additional features | Cable length |
|-----------|---|---------------------|--------------|
| 22HH-100X | Changeover                                      | External sensor     | 2 m          |

**Technical data**

|                        |  |   |
|------------------------|--|---|
| <b>Electrical data</b> | 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 <sup>2</sup>   |
|                        | Cable entry                                    | Cable gland with strain relief ø6...8 mm  |
| <b>Functional data</b> | Application                                    | Water   |
|                        | Output signal condensation detector relay note | Changeover contact, potential-free<br>Max. switching current 1 A @ 24 V<br>Min. switching current 5 mA @ 10 V |
|                        | Display  | LED, Green - power supply OK<br>Red - condensation  |
| <b>Measuring data</b>  | Measured values                                | Condensation  |
| <b>Materials</b>       | Cable gland                                    | PA6, black  |
|                        | Housing  | Cover: PC, orange<br>Bottom: PC, orange<br>Seal: NBR70, black<br>UV resistant                                 |
| <b>Safety data</b>     | 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   |
|                        | Enclosure                                      | UL Enclosure Type 4X  |
|                        | EU Conformity                                  | CE Marking  |
|                        | Certification IEC/EN                           | IEC/EN 60730-1  |
|                        | Quality Standard                               | ISO 9001  |
|                        | UL Approval                                    | cULus acc. to UL60730-1A/-2-9/-2-13, CAN/CSA E60730-1/-2-9  |
|                        | Type of action                                 | Type 1.B  |
|                        | Rated impulse voltage supply                   | 0.8 kV  |
|                        | Installation method                            | Independently mounted control   |
|                        | Pollution degree                               | 3   |

|                    |                     |                             |
|--------------------|---------------------|-----------------------------|
| <b>Safety data</b> | Ambient humidity    | Max. 95% RH, non-condensing |
|                    | Ambient temperature | -20...50°C [-5...122°F]     |
|                    | Fluid temperature   | -20...60°C [-5...140°F]     |

**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. Unauthorised 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 authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied 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 ( $\pm 0.2$  V). When switching the supply voltage on/off, onsite power surges must be avoided.

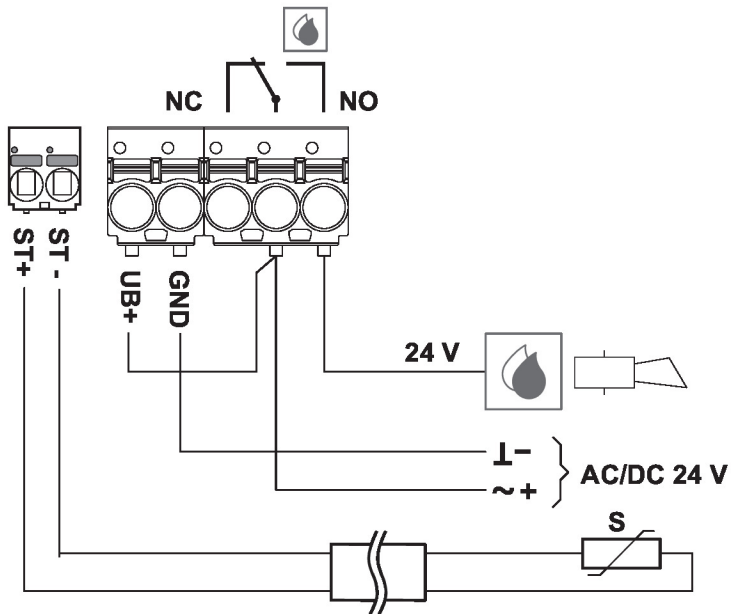
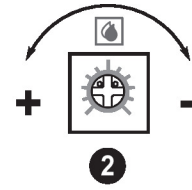
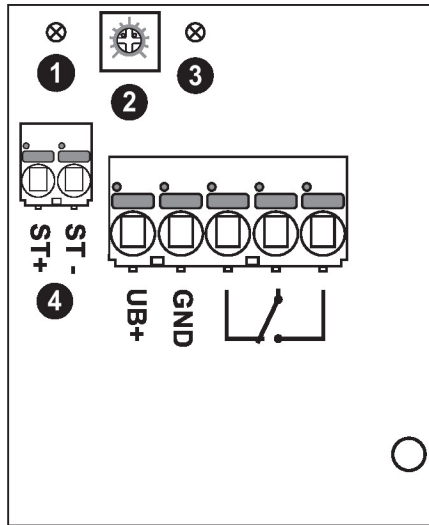
**Parts included**

| Parts included | Description                | Type      |
|----------------|----------------------------|-----------|
|                | Mounting plate S housing   | A-22D-A09 |
|                | Syringe with thermal paste | A-22P-A44 |
|                | Screws                     |           |
|                | Dowels                     |           |
|                | Cable tie                  |           |

**Accessories**

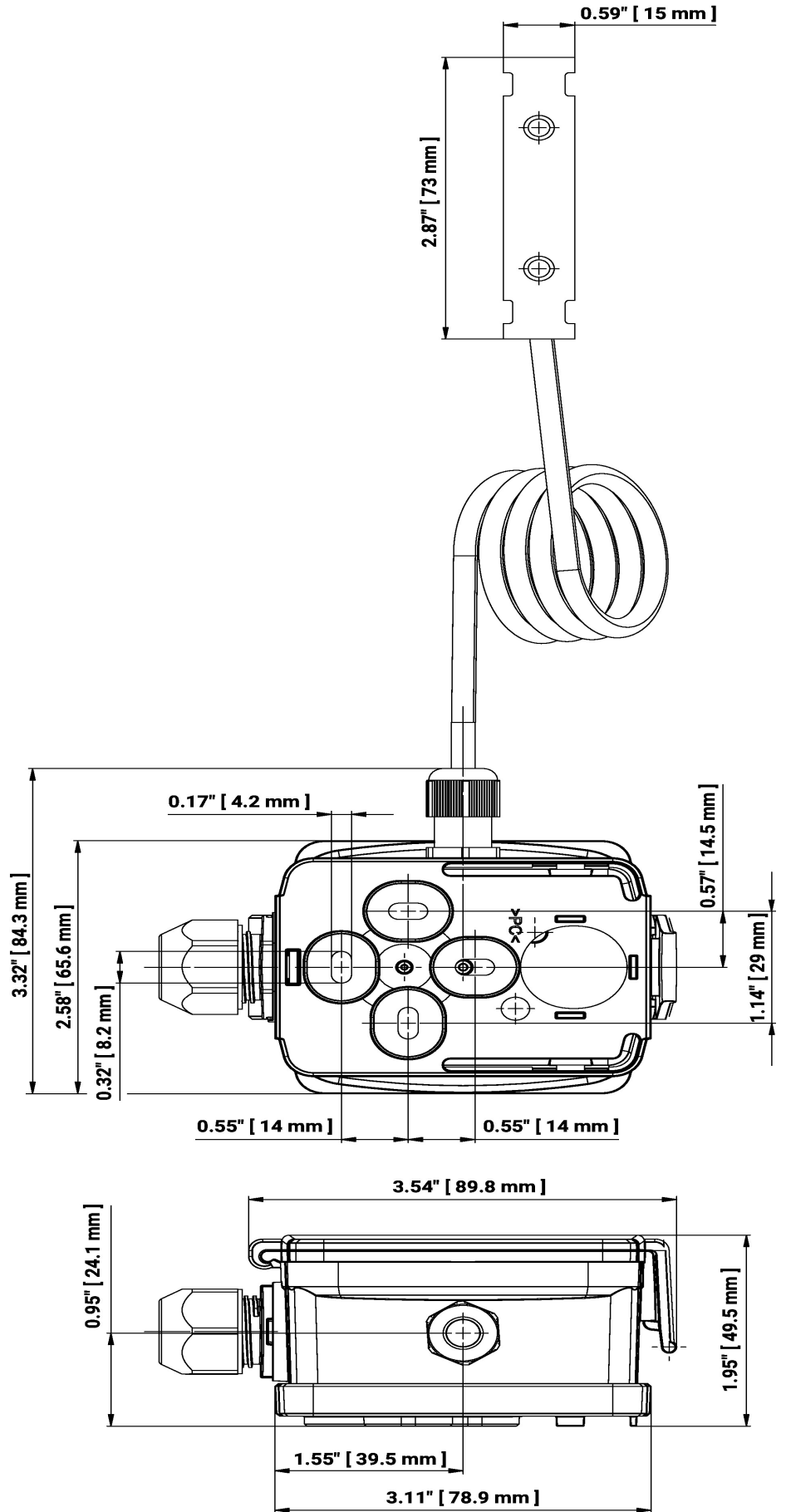
| Optional accessories | Description   | Type        |
|----------------------|---|-------------|
|                      | Connection adapter flex conduit, M20x1.5, for cable gland 1 x 6 mm, Multipack 10 pcs. | A-22G-A01.1 |

Wiring diagram



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

Dimensions



| Type      | Weight  |
|-----------|---------|
| 22HH-100X | 0.20 kg |

**Further documentation**

- Installation instructions