

Condensation Monitor QXA2000

The QXA2000 condensation monitor is used to avoid damage due to condensation on chilled ceilings and in HVAC plant.

It operates on AC/DC 24 V and has a potentialfree AC/DC 1...48 V changeover contact. Suited for use with extension module AQX2000 (AC 230 V) equipped with a potentialfree AC 12...250 V changeover contact.

Use

For monitoring condensation in buildings with chilled ceilings or in ventilation, air conditioning or heating plant.

The condensation monitor is used

- to prevent condensation on chilled ceilings
- to prevent condensation at critical spots of HVAC plant or buildings (in air ducts, near fans, etc.)
- as a condensation switch

In general, the condensation monitor is for use on all kinds of surfaces where condensation must be avoided.

Ordering and delivery

When ordering the condensation monitor, please give name and type reference. It is supplied complete with a strap-on band for pipe diameters from 10 to 100 mm and thermal conductive paste.

The AQX2000 extension module, which is offered as an accessory item, must be ordered separately.

Equipment combinations

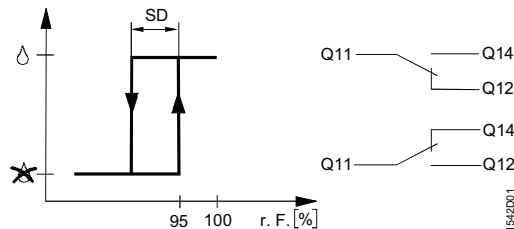
Suited for use with all types of devices

- that operate on AC/DC 24 V and that can handle the condensation signal delivered by the monitor's potentialfree AC/DC 1...48 V relay changeover contact, or
- that, in connection with the AQX2000 extension module, operate on AC 230 V and that can handle the condensation signal delivered by the module's potentialfree AC/DC 12...250 V relay changeover contact

Mode of operation

With its sensing element, the condensation monitor acquires the relative humidity close to the dewpoint (= 100 % r. h.). The resistance of the sensing element rises sharply in the range of 90...100 % r. h. Before the dewpoint is reached, the electronics energizes the relay. When, for instance, in the case of chilled ceiling applications, the relay contact switches over (2-position output), the following actions are triggered:

1. Cooling will be shut down via the valve or by a controller until the condensation signal is no longer present.
2. The water flow temperature will immediately be raised by an adjustable value (typically 1 to 2 K) and slowly reduced again after the signal has disappeared. This application requires a specific function in the controller.



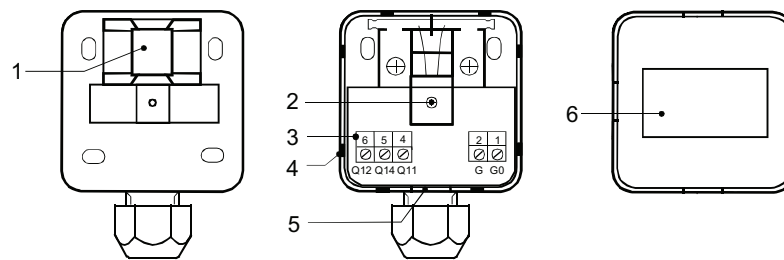
Legend

SD Switching differential
Q... Relay contact output

Mechanical design

QXA2000

Housing with snap-on cover made of pure-white, flame-retarding thermoplastics with spring-loaded humidity sensing element, holding relay with changeover contact, connection terminals and Pg 11 cable entry glands made of plastics.



Legend

- 1 Sensing element
- 2 Fixing screw with strap-on band
- 3 Terminal block
- 4 Nose of snap-on facility
- 5 Slot, for lifting the cover with the help of a screwdriver
- 6 Label with connection diagram

AQX2000

The AQX2000 extension module consists of base, top section and printed circuit board with the lateral connection terminals.

RXZ40.1

The RXZ40.1 terminal cover is available as an optional item for use with the AQX2000 extension module. It provides protection against electric shock hazard and keeps the terminals free from dust and dirt.