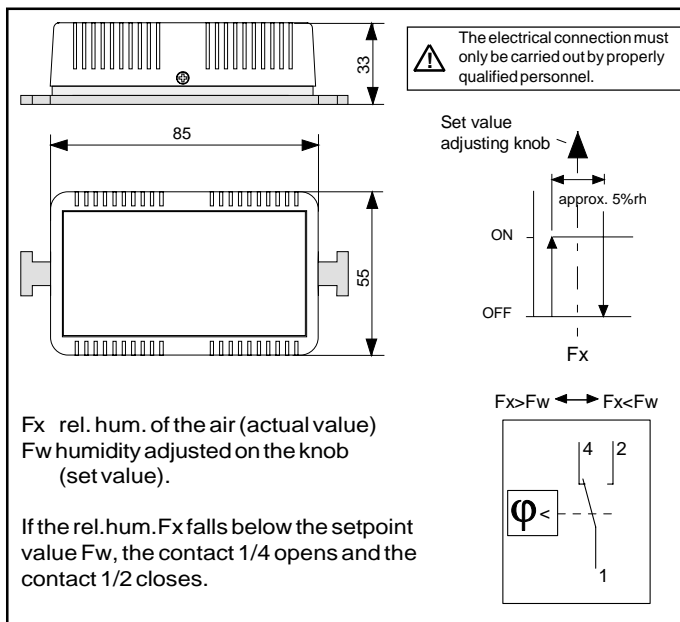


Humidity add-on switch to monitor the formation of condensed water Type FAS



Dimensions diagramm



Notes on use

If condensed water formation is to be monitored in a room, the most humid position should first be established. The coldest position does not necessarily have to be the most humid position (see hx diagram). It should also be borne in mind that any changes in the room cannot result in a different, more humid spot. The FAS humidity add-on switch must be mounted in such a way that there is good heat contact with the selected position. Please note also that any condensate must not get into the interior of the housing. Attachment is made by using the supplied binders which can be used for pipes with diameters of up to 50mm. The housing must not be exposed to any outside heat as this may cause incorrect measurements.

The installation position is to be selected in such a way that a representative measurement of the air humidity will be given, i.e. the ambient air must be able to reach the measuring element within the casing without obstacles. The FAS should be exposed to the flow of air.

Maintenance

The measuring element is maintenance-free in pure ambient air. Aggressive media containing solvent can cause measuring errors and failure, depending on the type and concentration. As with almost all humidity measuring elements, deposits which eventually form a water-repellent film over the sensor are harmful. Such substances are resin aerosols, lacquer aerosols, smoke deposits etc.

This information is based on current knowledge and is intended to provide details of our products and their possible applications. It does not, therefore, act as a guarantee of specific properties of the products described or of their suitability for a particular application. It is our experience that the equipment may be used across a broad spectrum of applications under the most varied conditions and loads. We cannot appraise every individual case. Purchasers and/or users are responsible for checking the equipment for suitability for any particular application. Any existing industrial rights of protection must be observed. The perfect quality of our products is guaranteed under our General Conditions of Sale. Issue : October 2008. Subject to modifications.

Description of the switch

The hygro module HM120 with Polyga® measuring element is arranged on an aluminium base plate such that the measuring element is immediately next to the base plate. Protected by the housing, relative humidity near to dew point can form in the interior. The aluminium plate is adjacent to the cooling pipe and transfers coldness to the measuring element. The measuring point can be adjusted in the interior. The threshold value can be adapted accordingly to the local conditions. The microswitch of the HM120 switches a changeover contact potential-free. The standard switch is lined with silver contacts. Optionally there is a microswitch with gold contact for low currents and voltages to a maximum of 100mA/48V AC and a minimum of 1mA/5V. The FAS does not require a supply voltage.

Adjusting the switch point

It is important to set the correct switch point for the equipment. A set value that is too high can cause dew to form as the conditions at the measuring point are not constant. Tests have shown that good results are achieved at a switch point of 80 % rh. The switch point can be adapted to the equipment. Open the covering cap and finely adjust the set value.

Technical Data

scale range 30..100%rh
measuring accuracy ±3.0%rh
range of operation 50... 100%rh
Switching difference(microswitch)ref. to 50rh
.....approx. 4%rh

Microswitch:

breaking capacity, *maximum load*
ohmic load "humidify" 2A, 230V AC
"dehumidify" 5A, 230V AC
inductive load* cos φ = 0.7 1.0A, 230V AC
breaking capacity, *min* 100mA, 20V DC / AC
lifetime 100.000 cycles
voltage (recommended) 24V AC
max. voltage 250V AC 50 Hz
!! Caution: 250V only on condition that there is no build-up of condensate on the electrical parts in the inside, otherwise voltage arcing may result.

optional: microswitch with gold contact:

breaking capacity, *max* 100mA, 48V AC
breaking capacity, *min* 1mA, 5V

allowable ambient temperature 0..60°C
temperature coefficient -0.2%/K rel. to 20°C/ 50%rh
half-time at v=2m/sec 1.2min
mounting position optional
contacting connecting terminals
electromagnetic compatibility EMC
resistance to interference EN 50 082-2
interference emission EN 50 081-2
type of protection IP20
measuring element

..... Polyga®-measuring element, water resistant
dimensions 85x55x33mm
weight approx. 70g
"subject to technical modifications"

* check for suitability!