

## Condensation detector to prevent the building of condensed water

FAS



CE

### Adjusting the break point

It is important to set the correct break point for the equipment. A setpoint value that is too high can cause dew to form as the conditions at the measuring point are not constant. The measuring point of the humidity controller should be selected such that there is no build-up of condensate on or in the device. Tests have shown that good results are achieved at a break point of 80%rh. The break point can be adapted to the equipment. Open the covering cap for that purpose and finely adjust the break point.

### Type Survey

Type	Order no.	Contact type
FAS	42088012	changeover contact with silver contacts
FAS	42087012	changeover contact with gold contacts
FAS 250V AC	42081012	changeover contact with silver contacts <i>see data sheet FAS 250VAC</i>

### Description of the switch

The hygrostat module on PCB with Polyga® measuring element is arranged on an aluminium base plate so that the measuring element is in an immediate proximity to the base plate. Protected by the housing, relative humidity near to dew point can form inside. The aluminium plate is adjacent to the cooling pipe and transfers the cold to the measuring element. The set point can be set inside and has to be adapted to the local conditions. The microswitch of the hygro module switches a changeover contact potential-free. The standard switch is lined with silver contacts. Optionally there is a microswitch with gold contacts. The FAS does not require a supply voltage resp. auxiliary energy.

### Technical Data

range of operation ..... 50...95%rh  
 measuring accuracy ..... +/-3%rh  
 switching difference  
 (microswitch) ref. to 50%rh ..... approx. 4%rh

breaking capacity  
 max. 48VAC and  
 0,1 ... 5A ohmic load for dehumidifying  
 0,1 ... 2A ohmic load for humidifying  
 0,1 ... 1A for inductive load with  $\cos \phi = 0.7$   
 lifetime ..... 100.000 breaking cycles

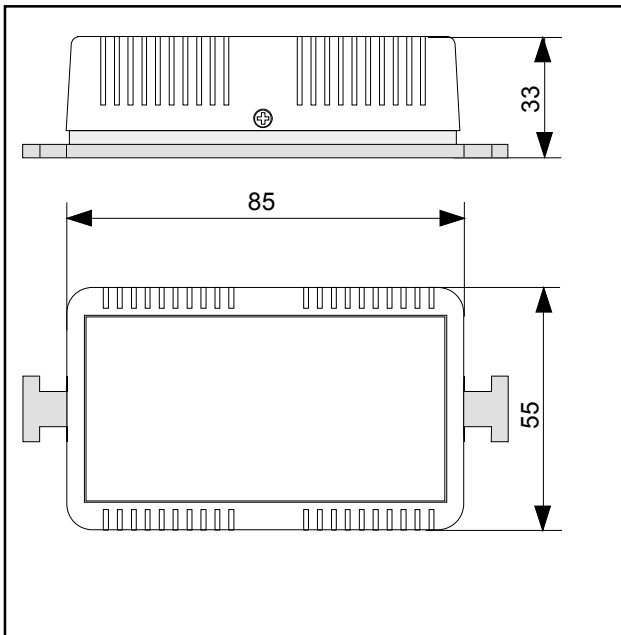
#### optional microswitch with gold contacts

breaking capacity  
 max. 48 VAC and  
 1...100 mA

optional FAS up to a maximum of 250V AC available  
 see separate data sheet at  
[www.galltec-mela.de](http://www.galltec-mela.de)

allowable operating temperature ..... 0...60°C  
 temperature coefficient ....  
 ..... -0.2%rh/K rel. to 20°C and 50%rh  
 half-life period at  $v=2m/sec$  ..... 1.2min  
 mounting position ..... as you like  
 contacting ..... connecting terminal in the case  
 electromagnetic compatibility  
 directive ..... 2006/95/EG  
 applied standards  
 DIN EN 60730-1 ..... issue 12/05  
 DIN EN 60730-2-13 ..... issue 09/02  
 protective system ..... IP20  
 measuring element .....  
 .....Polyga®-measuring element, water resistant  
 dimensions ..... 85x55x33mm  
 weight ..... approx. 80 g

**Dimensions diagram**

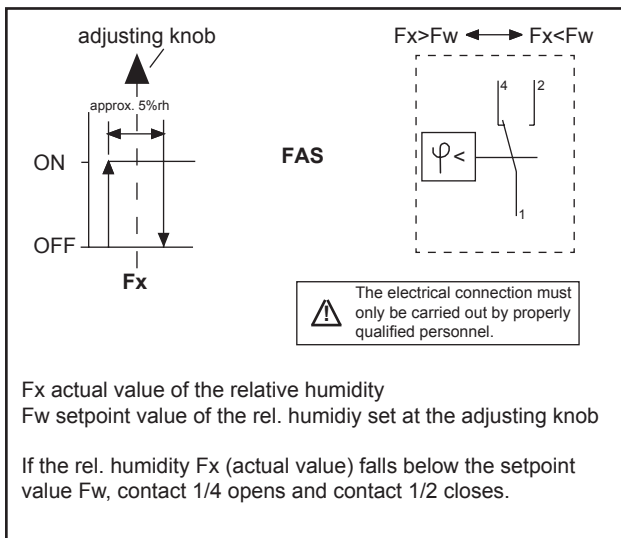


**Notes on use**

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). Please ensure that any changes in the room do not result in a different, more humid spot. The condensation detector FAS 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 mounting location should be chosen so that a representative measurement of the air humidity can be guaranteed, 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 with a minimum air speed of 0.2 m/s.

**Connection diagram**



**Maintenance**

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

No warranty is provided for defects and damage caused either by improper use or by any interference with internal components.