



Technical Data

scale range 30...100%rh
 measuring accuracy $\pm 3\%$ rh
 range of operation 35...95%rh
 switching difference (microswitch) ref. to 50%rh
 approx. 4%rh

breaking capacity
 max. 250VAC and
 0,1 ... 5A ohmic load for dehumidifying
 0,1 ... 2A ohmic load for humidifying
 0,1 ... 1A for inductive load with $\cos \varphi = 0,7$
 lifetime 100.000 breaking cycles
Please observe the notes on voltage.

optional microswitch with gold contact

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

optional microswitch up to 10 A

max. 250VAC and
 0.1 ... 10A ohmic load for dehumidifying
 0.1 ... 3A ohmic load for humidifying
 0.1 ... 1.5A for inductive load with $\cos \varphi = 0,7$

allowable ambient temperature 0...60°C
 medium temp. coefficient -0.2%/K rel.to 20°C and 50%rh
 adjustment at average air pressure 430 m NN
 allowable air speed 15m/sec
 half-life period at v=2m/sec 1.2min
 fixing slots in housing base
 mounting position optional, preferably ventilation slots
 at right-angles to wind direction
 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
 housing solid plastic, light grey
 protective system IP20
 measuring element
Polyga®-measuring element, water resistant
 dimensions85x55x36mm
 weight approx. 0.06 kg

Room humidistat

with Polyga® measuring element **HGMini**
 with adjusting knob inside the housing **HGMini-i**

Type Survey

Type	Order no.	Type of contact
HGMini	42042017	changeover contact: 1 x max. 5 A
HGMini-i	42042018	changeover contact: 1 x max. 5 A with internal scale
HGMini	42047017	changeover contact (gold plated): 1 x max. 100 mA
HGMini-i	42047018	changeover contact (gold plated): 1 x max. 100 mA with internal scale
HGMini	42047017 00000110	changeover contact (gold plated, IP67): 1 x max. 100 mA
HGMini 10A	42043017	changeover contact: 1 x max. 10 A

Description of the humidistat

The humidity measuring element which is manufactured by Galltec under the name Polyga®, consists of several plastic fabric bands each with 90 individual fibres with a diameter of 3 µm each. The fibres are provided with hygroscopic characteristics by a special process. The measuring element adsorbs and desorbs moisture. The effect, swelling predominantly in longitudinal direction, is transmitted via a lever system to a microswitch with an extremely small switching distance. The measuring element responds rapidly and precisely to the change in air humidity. It is possible to adjust the lever system by setting the adjustment knob so that the microswitch is actuated when the set air humidity is reached.

Application

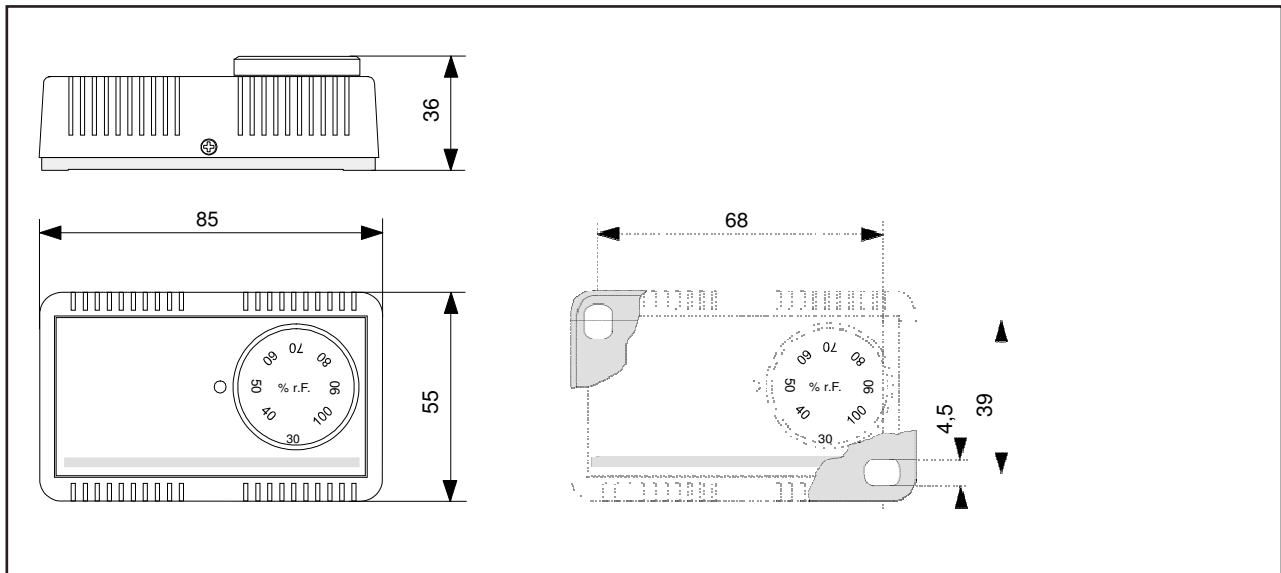
The humidistat type **HG Mini** is used as an on-off controller to control the relative air humidity. It can be used to control air humidifiers and dehumidifiers in offices and computer rooms. Other areas of use are storage of foodstuffs and luxury foods, cooling rooms for fruit and vegetables, greenhouses for gardening use, the textile industry, the paper and printing industry, the film industry and hospitals. The humidistats can be used almost anywhere that air humidity has to be regulated or monitored.

The room humidistat **HG Mini-i** is designed so that the adjusting knob and the scale are inside the housing. This makes unauthorized manipulation by third parties more difficult.

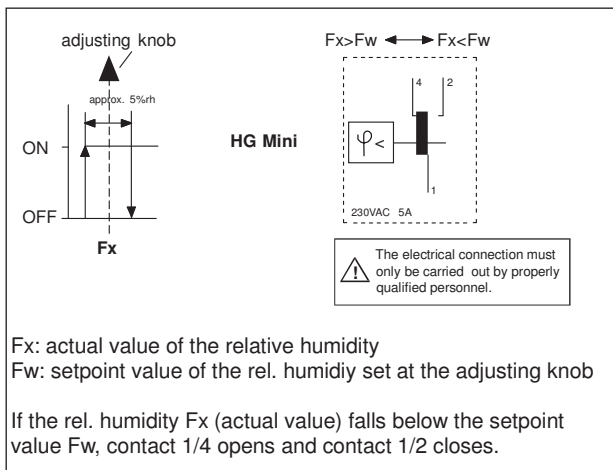
Notes on voltage

The measurement location of the humidity controller should be selected such that there is no build-up of condensate on or in the device. This applies particularly for operation with a voltage higher than 48V. If the voltage is higher, there is a risk of voltage arcing in the event of water condensation on the microswitch or connecting terminals which might destroy the controller. In the case of voltage below 48V, the humidity controller can be used up to 100%rh.

Dimensions diagram



Slot diagram



Physical influence of temperature on the relative air humidity

at a temperature fluctuation of $\pm 1K$ referred to various room temperatures.

	10°C	20°C	30°C	50°C
10%rh	+/-0,7%rh	+/-0,6%rh	+/-0,6%rh	+/-0,5%rh
50%rh	+/-3,5%rh	+/-3,2%rh	+/-3,0%rh	+/-2,6%rh
90%rh	+/-6,3%rh	+/-5,7%rh	+/-5,4%rh	+/-4,6%rh

It is thus of extreme importance that the temperature is constant for measurements of the relative air humidity. The air must be homogenous.

Mounting

- The humidistat must not come into direct contact with water, e.g. splashed water when cleaning the climatic chamber etc.
- The mounting location should be chosen so that a representative measurement of the air humidity can be guaranteed, i.e. the humidity readings at the mounting location should correspond to those in the room.
- The humidistat should be exposed to the flow of air.

Cleaning instruction

1. Unscrew the cover. Clean the cord shaped measuring element using a soft brush and clean water. Do not use a detergent as it cannot be dispersed.

It is important that no water is allowed to get onto the other components, particularly microswitches, terminals, printed circuit boards.

2. Air drying.
Do not use warm or hot air (hair dryer).

Maintenance

The measuring element is maintenance-free in pure ambient air. Depending on their type and concentration, aggressive media containing solvents can cause incorrect readings or cause the humidistat to fail. As with almost all humidity measuring elements, substances deposited on the measuring element (e. g. resin aerosols, paint aerosols, smoke deposits etc.) are harmful as they eventually form a water-repellent film.

NOTE

Contact with the inner parts nullifies the guarantee.