



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. Deposits which eventually form a water-repellent film over the measuring element are harmful (such as resin aerosols, lacquer aerosols, smoke deposits etc.)

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.

Product info sheet Hygro-Modul HM120

with one changeover contact, scale range 30...100%rh, IP00

Application

The hygro module **HM120** is a humidity-dependent switch that can be fitted in equipment such as hygrometers, humidifiers, dehumidifiers, ventilating fans, driers and many more. The module represents an on-off controller with changeover contact. The switch connection is via a connecting terminal, but can also be supplied ready-made with cable connections. Several versions of different lengths are available as a shaft. Protection of the module is of the IP00 type.

Description of the Hygrostat

The humidity measuring element, produced by Galltec under the name Polyga®, consists of several synthetic fabric bands each with 90 individual fibres with a diameter of 3µm. A special process gives the fibre hygroscopic properties. The measuring element adsorbs and desorbs humidity. The swelling effect, which is predominantly in a lengthways direction, is carried via a suitable lever system to a microswitch with an extremely small switching path. The measuring element reacts quickly and precisely to the change in air humidity. By adjusting the setpoint value control knob, the lever system is engaged so that when the set air humidity is reached the microswitch is activated.

The fan shaped measuring element should be protected from dust, dirt and water. The hygro module is designed for pressureless systems.

Technical Data

scale range 30..100%rh
 measuring accuracy ±3%rh
 range of operation 35..95%rh
 measuring medium air, pressureless, non-aggressive
 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
 allowable operating temperature 0...60°C
 medium temp. coefficient -0.2%/K relative 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 only with plastic screws M3
 contacting connecting terminals

applied directives / standards

low-voltage directive 2014/35/EU
 EMC directive 2014/30/EU
 DIN EN 60730-1:2012-10
 DIN EN 60730-2-13:2008-09

type of protection IP00
 measuring element
 Polyga®-measuring element, water resistant, washable
 dimensions 59x47x33 mm
 weight approx. 0.25 kg