



- Hygrometric method of measurement
- Two-position controller for relative humidity
- Recommended operating range:  
35...100 % rH, 0...60 °C



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**Model:**  
AFS-G2



## Description

The room hygrostat AFS-G2 is a two-position controller for regulating relative humidity.

The moisture sensing element in the sensor comprises several strips of plastic fabric each with 90 fibres of 3 µm diameter. These plastic fibres undergo a special process to acquire hygroscopic properties, this means that they absorb and release moisture. The molecular structure of the fibres changes when they absorb water, giving rise to a measurable change in length. The length of the plastic fibres is thus a measure of the relative humidity.

The swelling effect, acting primarily in longitudinal direction, is transferred over a suitable lever system to a microswitch with an extremely small changeover movement.

The measuring element reacts quickly and accurately to the change in humidity. The setpoint is set with the setpoint button so that the microswitch is actuated by the lever system when the humidity setpoint is reached.

The special treatment of the measuring element ensures that its hygroscopic properties remain stable, that is sensitivity is maintained until destroyed by external influence.

The harp-shaped measuring element is mounted inside the housing and should be protected against coarse dust, dirt and water. The hygrometers are designed for unpressurized systems.

The installation position should be chosen so as to prevent condensed water from entering the housing.

The instrument can be installed in any position, but the ventilation slots should be at right angles to the wind direction if possible.

## Application examples

### Control of humidifiers and dehumidifiers:

- Office and computer rooms
- Building management systems
- Warehousing of foodstuffs and semi-luxury foods and tobacco
- Glasshouses for horticultural businesses
- Textile industry
- Paper industry and printing trade
- Film industry
- Hospitals
- Air-conditioning cabinets

## Technical Details

### Physical Details

Measuring range:	30 ... 100 % rH
Measuring accuracy:	±3.0 % rH
Recommended operating range:	35 ... 100 % rH
Differential gap (microswitch):	approximately 4 % rH (at 50 % rH)
Max. voltage:	250 V <sub>AC</sub> <i>(Important! 250 V only when it is certain that no condensate forms in the sensing element, as otherwise arcing can occur)</i>

### Switch contact

Contact rating, maximum capacity

• Resistive load:	5 A, 230 V <sub>AC</sub> (service life 50 000 cycles)
• max load for "humidification":	2 A
• max load for "dehumidification":	5 A
• Inductive load* cos φ = 0.8:	0.2 A, 230 V <sub>AC</sub>
Minimum contact rating:	100 mA, 20 V <sub>DC/AC</sub>

### General

Allowed ambient temperature:	0 ... 60 °C
Average temperature coefficient:	-0.2 % rH/K (at 20 °C and 50 % rH)
Allowed air speed:	15 m/s
Half-life at v=2 m/s:	1.2 min
Contact:	connection terminals in housing

### Electromagnetic compatibility:

• Noise immunity:	EN 50 082-2
• Emitted interference:	EN 50 081-2
Housing:	light grey plastic housing
Protection:	IP 20
Dimensions:	85 x 55 x 36 mm
Weight:	approximately 0.06 kg

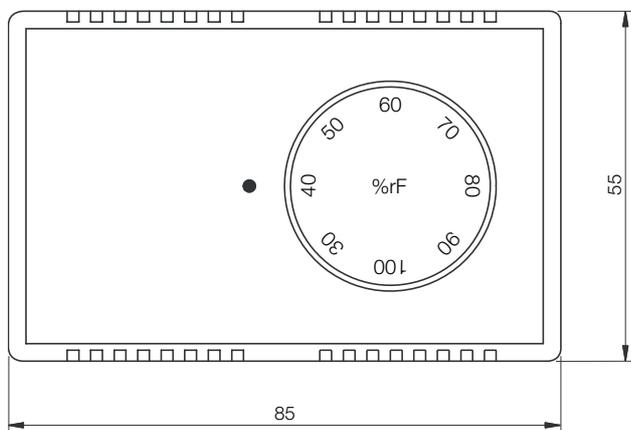
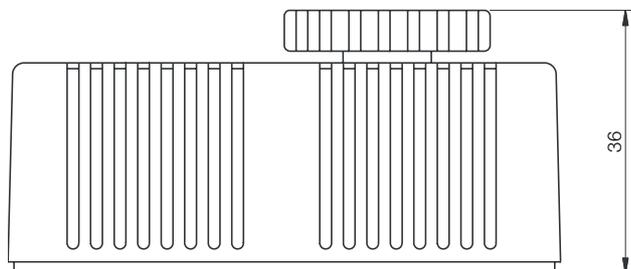
\* Check suitability!

### Installation

Mounting:	holes in base
Installation	position: any, preferably slots in wind direction



**Dimensions**



**Order Code: AFS-G2**