

HSC 120: Room humidistat

How energy efficiency is improved

Enables humidity control devices to be switched on according to needs

Features

- Monitoring and regulation of relative air humidity in rooms by controlling fans, drying units and air humidifiers
- Variable relative humidity as setpoint based on printed scale in % rh
- Measurement taken via a measuring element of stabilised synthetic textile tape.
- Controller with fixed switching difference of X_{sd}

Technical data

Power supply

Max. load	5(3) A, 250 V~
Min. load	100 mA, 24 V=/~

Parameters

Setting range	30...90% rh
Setting accuracy ¹⁾	±5% rh
Humidity calibration at	55% rh, 23 °C
Switching difference	Typ. 6% rh
Long-term stability	Approx. -1.5% rh/a
Time constant in moving air (0.2 m/s)	Approx. 5 minutes
Temperature effect	0.5% rh/K

Ambient conditions

Operation	Admissible ambient humidity	30...90% rh non-condensing
	Temperature	0...50 °C
Storage and transport	Admissible ambient humidity	10...95% rh non-condensing
	Temperature	-25...70 °C without condensation

Construction

Dimensions W x H x D	76 × 76 × 34 mm
Weight	0.09 kg
Housing	Pure white (RAL 9010)
Housing material	Fire-retardant thermoplastic, UL94V-0
Screw terminals	For electrical wires of up to 1.5 mm ²

Standards and directives

Type of protection ²⁾	IP 30 (EN 60730-1), operating status	
Protection class	II (IEC 60730)	
Environment class	3K3 (IEC 60721-3-3)	
CE conformity according to	EMC Directive 2014/30/EU	EN 60730
	Low-Voltage Directive 2014/35/EU	EN 60730-1, EN 60730-2-13

Overview of types

Type	Features
HSC120F001	Setting via external setpoint adjuster
HSC120F010	Internal setpoint adjuster

Accessories

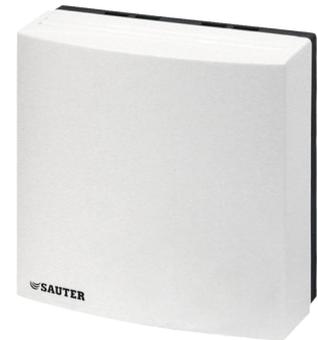
Type	Description
0362225001	Intermediate plate, pure white, for wall mounting on recessed junction box

¹⁾ The setting accuracy of the humidistat is valid for the calibration point ±5% rh at 55% rh and 23 °C following initial calibration at the factory. See diagram "Setting accuracy". In general, humidity sensors (humidistats) are subject to increased ageing if they are used and/or stored in very contaminated air or aggressive gases. The humidistat may start to drift and its linearity may change under these conditions. If the humidistats are used in very contaminated air, the warranty does not cover a premature re-calibration or the replacement of the complete humidistat

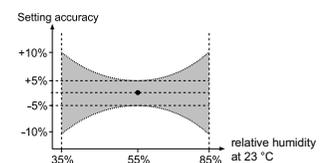
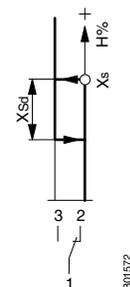
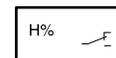
²⁾ Operating status: device mounted and closed



HSC120F001



HSC120F010



Additional information

Fitting instructions

HSC120F001	P100013519
HSC120F010	P100013250

Description of operation

When the relative air humidity is increasing, contacts 1-2 are opened and 1-3 closed after the upper change-over point has been reached. Setpoint X_S corresponds to the upper change-over point. The contacts are reset when the humidity value falls again below the upper change-over point by the amount of the fixed switching difference X_{sd} .

The normal ageing process of the measuring element causes the change-over point to gradually and permanently shift. Recalibration may, therefore, be necessary.

At temperatures other than the compensation temperature, the change-over point is shifted systematically (effect of temperature). Similarly, if the humidity changes quickly, the change-over point is shifted temporarily.

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the "Description of operation" section.

All related product regulations must also be adhered to. Changing or converting the product is not admissible.

Improper use

HSC 120 is not suitable for safety applications.

The product must not be used outdoors or in rooms where there is a risk of condensation. Condensation can have a negative effect on the measuring accuracy.

Engineering and fitting notes

Note



- Only qualified electricians are permitted to fit, connect, and dismantle the product.
- > Disconnect from mains before opening.
- > Once open, prevent access of non-professionals.
- > Take damaged devices out of operation immediately.

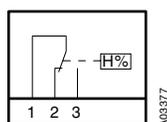
The housing base allows cables to be inserted from behind so that the unit can be fitted on recessed junction boxes. With surface-mounting, openings can be made above or below as required.

Disposal

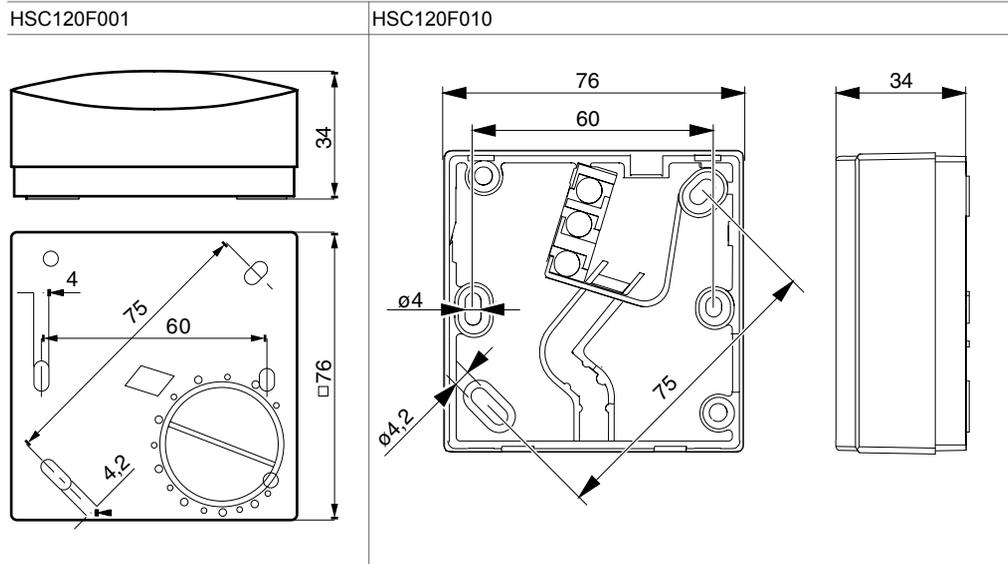
When disposing of the product, observe the currently applicable local laws.

More information on materials can be found in the Declaration on materials and the environment for this product.

Connection diagram



Dimension drawing



Accessories

0362225001

