HBC: Duct-mounted humidistat

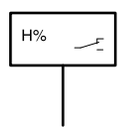
HBC11*F001

How energy efficiency is improved

Enables humidity control devices to be switched on according to needs

Features

- Monitoring and regulation of relative humidity by controlling fans, drying units and air humidifiers
- Temperature-compensated humidity sensor
- Variable relative humidity as setpoint based on printed scale in % rh
- Includes fixing bracket with seal for duct or wall mounting
- For fitting in a ventilation duct or on a wall
- With single-pole change-over contacts and fixed switching difference X_{sd}
- Immersion depth 130...156 mm; includes fixing bracket



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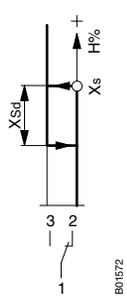
Technical data

Power supply		
	Max. load	5(3) A, 250 V~
	Min. load	100 mA, 24 V
Parameters		
	Setting range	15...95% rh
	Setting accuracy	±5% rh
	Humidity calibration at	55% rh, 23 °C
	Temperature influence	Compensated
	Long-term stability	–1.5% rh/a
	Time constant in moving air (0.2 m/s)	Approx. 3 minutes
	Switching difference X_{sd}	4% rh (after humidity calibration)
	Max. air speed	10 m/s
Ambient conditions		
Operation	Humidity (non-condensing)	30...90% rh
	Temperature	0...70 °C
Storage and transport	Humidity (non-condensing)	10...95% rh
	Temperature	-20...70 °C
Construction		
	Housing material	Glass-fibre-reinforced thermoplastic
	Housing cover	Thermoplastic, sealable
	Sensor tube	Glass-fibre-reinforced thermoplastic, Ø 30 mm
	Cable inlet	PG 11
	Screw terminals	For electrical cables of up to 1.5 mm²
Standards and directives		
	Type of protection	IP30 (EN 60529)
	Protection class	II (IEC 60730)
	EMC Directive 2014/30/EU	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
	Low-Voltage Directive 2014/35/EU	EN 60730-1, EN 60730-2-13



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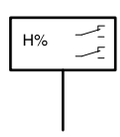

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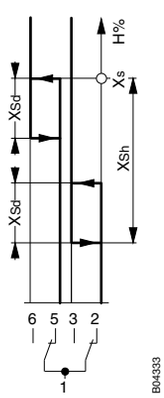


HBC112F001

Overview of types

Type	Switching range X_{sh}	Number of switches	Weight
HBC111F001	–	1	0.33 kg
HBC112F001	6...25% rh	2	0.35 kg

HBC 112: For 3-point control or min./max. monitoring and internally adjustable switching range X sd

Accessories	
Type	Description
0303538001	Set for increasing protection rating to IP55 (housing lid with transparent cap for setpoint knob, seal, 1 cable gland - PG 11, 1 plug - PG 11)
0370560011	Cable screw fitting PG 11, plastic, for cable of Ø 9...11 mm

Additional information

Fitting instructions	P100013551
Operating instructions	BA 505435

Description of operation

HBC 111 (1 micro-switch):
When the relative humidity exceeds setpoint X_S, the contacts switch from 1-2 to 1-3. The contacts are reset when the humidity value decreases again by the amount of the fixed switching difference X_{Sd}.
HBC 112 (2 micro-switches):
When the relative humidity increases, the first switch switches from 1-2 to 1-3. When setpoint X_S is reached, the second switch switches from 1-5 to 1-6. When the relative air humidity decreases by switching range X_{Sh}, the first switch switches from 1-3 back to 1-2. Switching range X_{Sh} can be set internally using a screwdriver.
If the humidity changes quickly, the switching 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.

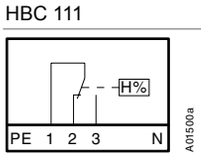
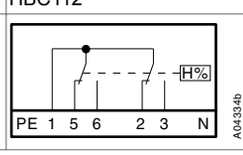
Notes on engineering and installation

Fitting position:
Sensor tube horizontally to vertically downwards.
The sealing set (accessory 0303538) increases the protection type to IP 55.

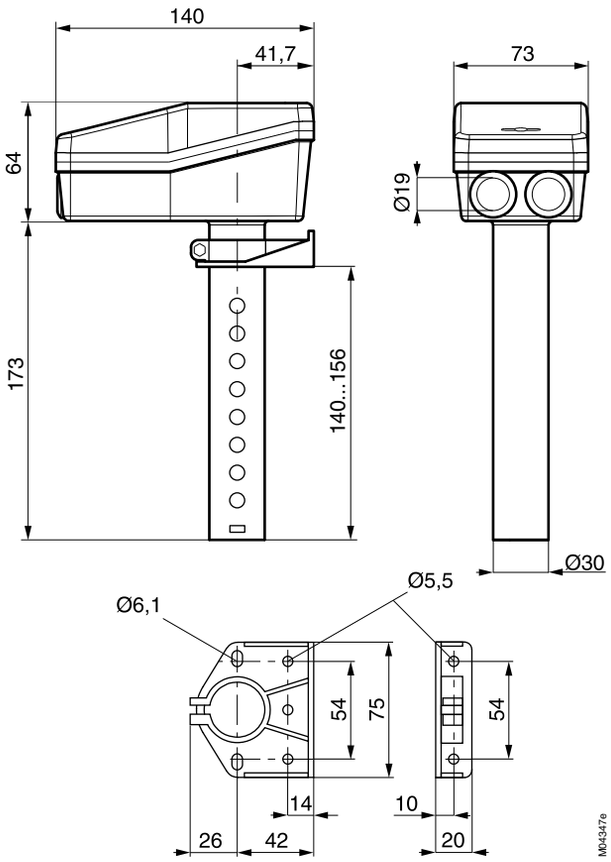
Disposal

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 diagrams

HBC 111	HBC112
	

Dimension drawing



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