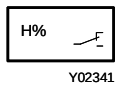
HSC 120: Room humidistat

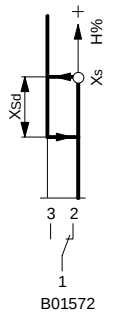
How energy efficiency is improved
Enables equipment to be switched as required in order to control humidity.

Areas of application
Monitoring and controlling relative air humidity in rooms by controlling fans, drying units and air humidifiers.

Features
- Variable relative humidity as setpoint based on printed scale in % rh
- Measurement is effected using a sensor made of stabilised synthetic textile tape
- HSC 120 range available with setpoint adjuster on front or inside
- Versions with safety plug for direct control of humidifiers and dehumidifiers without integrated humidity controller

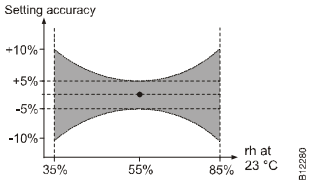


Technical description
- Housing of pure-white, flame-retardant thermoplastic (RAL 9010)
- Micro-switch with fixed switching difference X_{Sd}
- Screw terminals for wires of up to 1.5 mm²
- Switching capacity: up to 5 A



Type	Remarks	Cable	Setpoint % rh	Weight kg
HSC 120 F001	External setpoint adjuster	none	30...90	0.090
HSC 120 F010	Internal setpoint adjuster	none	30...90	0.090
HSC 120 F020	With earthed plug for humidification	1.5 m	30...90	0.260
HSC 120 F021	With earthed plug for de-humidification	1.5 m	30...90	0.260

Contact rating		Permissible ambient temp.		0...40 °C
max	5 (3) A, 250 V~	no dew formation		–25...40 °C
min.	100 mA, 24 V	Degree of protection		IP 20 (EN 60529)
		Protection class		II (IEC 60730)
Time constant (v = 0.2 m/s)	approx. 5 min	Wiring diagram	F001/F010	A03377
Switching difference	Typ. 6 %rh		F020	A05252
Setting accuracy	± 5% rh [1)]		F021	A05251
Temperature influence	+0,5% rh/K	Dimension drawing		M05363
Humidity calibration at	55% rh, 23 °C	Fitting instructions	F001	MV 505403
Long-term stability	approx. –1.5% rh/a		F010	MV 505647
			F020/F021	MV 505404



Accessories
0362225 001* Intermediate cover plate for wall mounting onto recessed junction boxes

*) Dimension drawing or wiring diagram are available under the same number
1) The setting accuracy of the humidistat at the calibration point is ± 5% rh at 55% rh, 23°C after initial calibration at the factory. Setting accuracy 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. Under these conditions, the humidistat may drift prematurely and alter the linearity. 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.

Operation
When the relative humidity rises and reaches the upper switching point, contacts 1-2 open and 1-3 close. The setpoint X_S corresponds to the upper switching point. The contacts revert to their original position when the humidity has fallen below the upper switching point by the amount of the fixed switching difference (X_{Sd}).

The ageing process of the sensing element causes a gradual and lasting displacement of the switching point, thus possibly necessitating re-adjustment.

When the temperature is different to the calibration temperature, the switching point is systematically shifted (temperature influence).

Similarly, rapid changes in humidity also cause the switching point to be temporarily shifted.

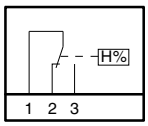
Engineering and installation notes
The housing cover provides for the cable to be inserted from the rear when fitted on recessed junction boxes. Break-out apertures are provided at the top and bottom for surface mounting.

Additional technical data

Complies with:	
Directive 2006/95/EC	EN 60730-1/ EN 60730-2-13
EMC Directive 2004/108/EC	EN 61000-6-1/ EN 61000-6-2
	EN 61000-6-3/ EN 61000-6-4

Wiring diagrams

F001, F010



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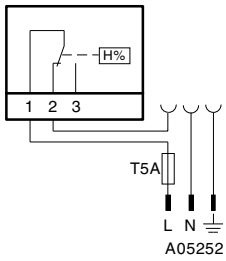
F020 (humidification)



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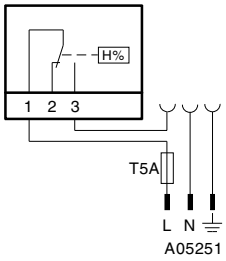
F021 (de-humidification)



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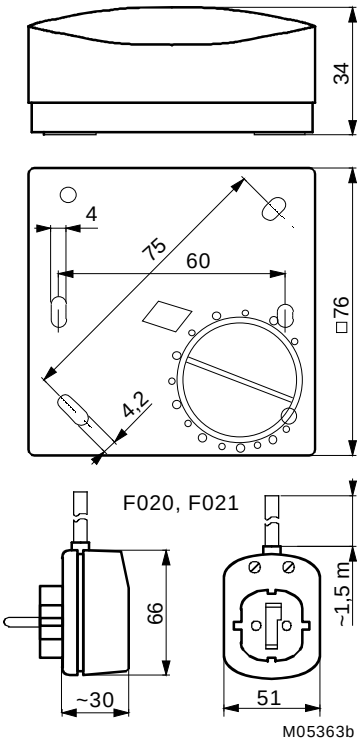
Dimension drawing



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Accessories

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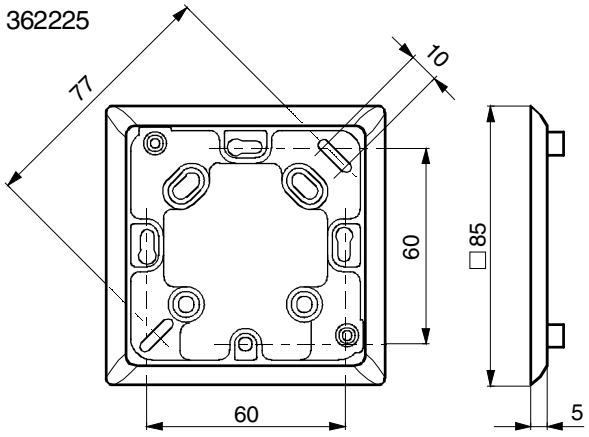

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N.B.: A comma between cardinal numbers denotes a decimal point

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