

EGH 120: Room transducer for relative humidity

How energy efficiency is improved

Accurate recording of relative humidity for energy-efficient control of HVAC systems and reduction of energy consumption.

Areas of application

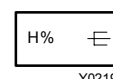
Measurement of relative humidity in residential and business premises.

Features

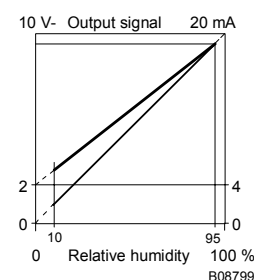
- Measurement using fast, capacitive sensor
- Active measured value acquisition
- Cable inlet at rear
- Suitable for wall mounting

Technical description

- Housing made of pure white fire-retardant thermoplastic (RAL 9010)
- Conversion of values recorded into a constant standard signal 0(2)...10 V or 0(4)...20 mA
- Screw terminals for wires up to 1,5 mm²



Y02195



Type	Humidity range %rh	Humidity output for 0...100 %rh	Voltage	Weight kg
EGH 120 F001	10...95	0(2)...10 V ¹⁾	24 V ~/=	0,1
Power supply 24 V ~/=	± 20%	Permissible ambient temperature	0...40 °C	
Power consumption	approx. 0,8 VA	Permissible ambient humidity	5...95 %rh	
Output signal ¹⁾	0(2)...10 V, load > 500 Ω	Degree of protection	IP 30 (EN 60529)	
Temperature influence	± 0,05 %rh/K, compensated	Protection class	III (IEC 60730)	
Time constant in air (0.2 m/s) humidity	approx. 18 s	Wiring diagram	A02160	
		Dimension drawing	M00981	
		Fitting instructions	MV 505307	

Accessories

0297441 000* Intermediate cover plate, pure white, for various recessed junction boxes.

0369573 001* Surface junction box

0303124 000* Recessed junction box (with 0297441 only)

*) Dimension drawing and wiring diagram are available under the same number

1) When the load is < 500 Ω, the unit switches over automatically to 0 to 20 mA (or 4 to 20 mA)

Operation

Humidity measurement

The relative humidity is registered with a fast-acting, capacitive sensor and converted by a measuring amplifier into the standard signal 0...10 V. The output can be changed over to 2...10 V. When the load is < 500 Ω, the output switches over automatically to a current signal of 0 to 20 mA (or 4 to 20 mA).

Further technical information

Humidity		Complies with:-
Accuracy at 55 %rh, 23 °C	± 3,5 %rh	EMC directive 2004/108/EC EN 61000-6-1/ EN 61000-6-3
Hysteresis (average)	< 3 %rh	
Reproducibility Δ 30 %rh	< ± 2 %rh	
Output voltage	max. 13 V	

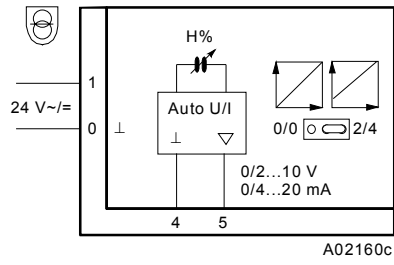
User information

In general, humidity sensors age more quickly if they are used in very contaminated air or aggressive gases. The sensor can drift prematurely under these conditions. The drift can be adjusted by 10% using the H10% rh adjuster if accurate measurement is needed.

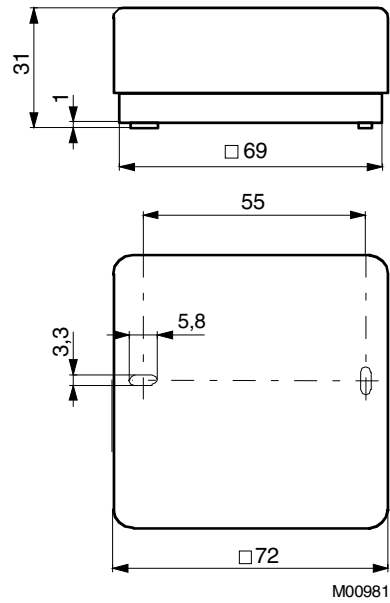
If the product is used in very contaminated air, a re-calibration or, if necessary, a complete exchange of the complete sensor is not covered by the warranty.

Wiring diagram

EGH 120

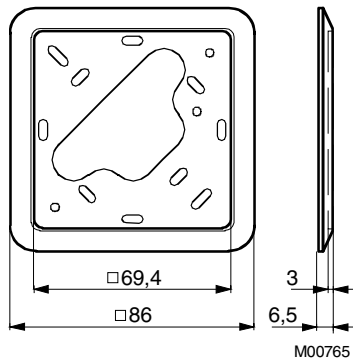


Dimension drawing

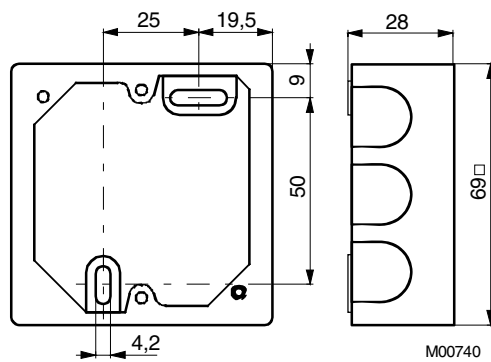


Accessories

297441



369573/...



303124

