

EGH 103: Dew point monitor

How energy efficiency is improved

Effective protection against moisture damage.

Features

- Protects against dew formation on chilled ceilings, etc.
- Controls a regulating unit via a holding relay that interrupts the cooling water flow or increases the cooling water temperature.
- Measurement is performed by a dew point sensor
- Potential-free output contact for 24 V and 230 V
- Holding relay with changeover contacts
- LED indicator for power supply and dew formation
- Cable inlet M20
- Fitted onto pipes using the provided cable ties for pipes Ø 10...40 mm

Technical data

Power supply		
	Power supply	230 VAC ±10%
	Power consumption	Max. 3.5 VA
Parameters		
	Changeover contact ¹⁾	5 A, 230 VAC
	Switching point	95 ±4% rh
	Switching difference	Fixed, approx. 5% rh
Ambient conditions		
	Ambient temperature	-20...60°C (non-condensing)
Construction		
	Weight	0.19 kg
	Dimensions H x W x D	85 x 71.4 x 48 mm
	Housing	Pure white, PA6
	Connection terminals	Plug-in connectors, max. 1.5 mm²
Standards, directives		
	Type of protection	IP 65 (EN 60529)
CE conformity according to	EMC Directive 2014/30/EU	EN 61000-6-1, EN 61000-6-3
	Low-Voltage Directive 2014/35/EU	EN 60730-1 (mode of operation 1, residential premises)
Overview of types		
Type	Description	
EGH103F002	Dew point monitor 230 VAC	
EGH103F102	Dew point monitor 230 VAC with external sensor	
Accessories		
Type	Description	
0300360004	Heat-conducting paste incl. gun with 2 g content	

Description of operation

The resistance of the dew point sensor decreases as the relative humidity increases. The electronics evaluate the resistance and use it to control the change-over contact via a holding relay. If a supply voltage and non-condensed condition is present, contact NO-C is closed. If the changeover point is exceeded, contact NO-C opens and contact NC-C closes. If no supply voltage is present, contact NC-C also closes and contact NO-C opens. A potentiometer can be used to adjust the sensitivity of the dew point monitor or to raise or lower the switching threshold.

¹⁾ When activating relays, gates, etc. with $\cos \varphi < 0.3$, it is recommended to use RC circuitry in parallel to the coil. This reduces contact pitting and prevents high-frequency interference



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.

Engineering and fitting notes

Note



Only qualified electricians are permitted to fit and connect the device.

To mount the dew point monitor on the supply pipe (coldest point):

1. Clean the metal tube surface.
2. Apply heat-conducting paste selectively.
3. Secure the sensor using the cable ties provided.

The room air must be able to flow freely around the measuring element.

The measuring element is maintenance-free in clean air. Depending on the type and concentrations, atmospheres containing aggressive substances and solvents can cause damage to the sensor and result in incorrect measurements. Dirt on the sensor film can also result in inaccurate measurements. A very high degree of contamination requires annual cleaning.

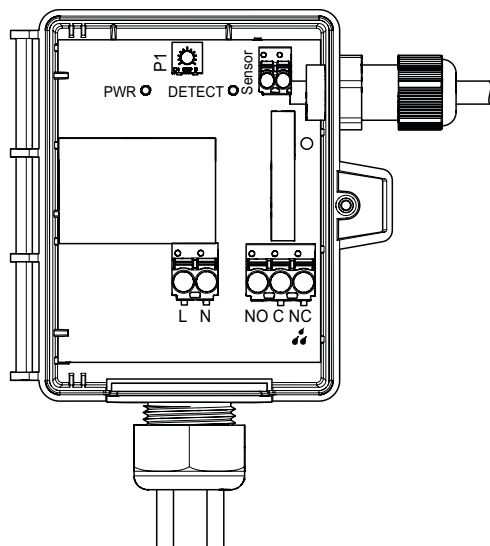
LED indicator

Green	Power supply OK
Red	Dew formation

Disposal

The local, currently valid laws must be observed when disposing of the device.

Connection diagram



Dimension drawing

All dimensions in mm.

