

## EGH 103: Dew-point monitor

### How energy efficiency is improved

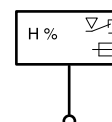
Effective protection against moisture damage.

### 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 change-over contacts
- LED indicator for power supply and dew formation
- Plug-in connectors for electrical lines up to 1.5 mm<sup>2</sup>
- Cable inlet M20
- Fitted onto pipes using the provided cable tie for pipes Ø 10...100 mm



EGH103F001



### Technical data

#### Power supply

Power supply	230 V~ ±10%
Power consumption	Max. 3.5 VA

#### Parameters

Change-over contact <sup>1)</sup>	Max. 5A, 230 V~ Min. 500 mW
Switching point	95 ±4% rh
Switching difference	Fixed, approx. 5% rh

#### Ambient conditions

Admissible ambient temperature	-20...60 °C (non-condensing)
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#### Construction

Housing	Pure white, PA6
Weight	0.19 kg

#### Standards, directives

Type of protection	IP 65 (EN 60529)
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#### Overview of types

Type	Title
EGH103F001	Taupunktwärter 230 V~

#### Accessories

### 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-condensing condition is present, contact 1-2 is closed. If the changeover point is exceeded, contact 1-2 opens and contact 2-3 closes. If no supply voltage is present, contact 2-3 also closes and contact 1-2 opens.

### Intended use

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

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

### Disposal

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

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

### Engineering and fitting notes

To mount the device/sensor on the supply pipe (coldest point): Clean the metal of the pipe surface, apply spots of heat-conducting paste and fasten the sensor with the cable tie. 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



#### Safety instructions – Caution

The fitting and assembly of electrical devices (modules) may only be performed by an authorised electrical expert.



#### CAUTION!

Danger of electric shock! There may be live elements inside the housing. Contact with live elements may result in bodily injury, especially in devices connected to the mains power supply (typically between 90 and 265 V).

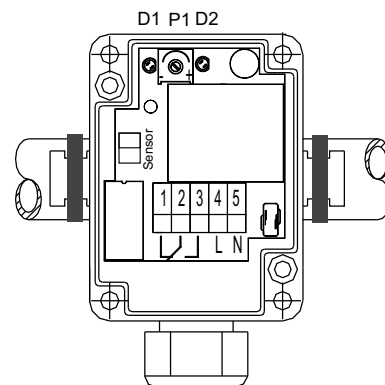


#### Important

Also valid:

- Laws, standards and directives
- The current state of the technology at the time of installation
- The technical data and the operating instructions of the device

### Connection diagram



### Dimension drawing

