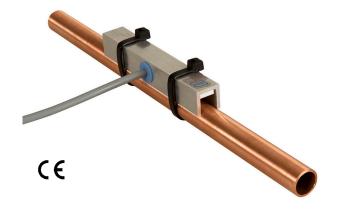
MELA Sensortechnik GmbH

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Product info sheet





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Analogue- and switching output (changeover contact) Type HSF2.KW.F300.F00.1K0 Switching output (changeover contact) Type HSFS.KW.0000.00.1K0

Humidity sensors for monitoring condensation

Description

Sensors for monitoring condensation are suitable for installation on cooling water pipes or cooled surfaces and monitor whether the temperature of the direct surroundings falls below the dew

They measure the relative humidity directly on the surface of the cool section of the system and can be used to:

- influence the cooling capacity
- switch cooling systems on and off
- signal when the temperature falls below the dew point

This means, for example, that even with critical climatic values, cooling ceilings can be operated effectively without condensation forming.

User information

The HSF sensors should be fitted onto the bare metal pipe at the position which is at greatest risk of condensation formation and secured using cable ties (not included in the standard delivery). It is also possible to fit the sensors onto a clean surface which is free from grease using the ZA30 installation kit, available as an accessory. In both cases, the lowest possible heat transfer resistance should be observed, as this is essential to ensure that the appliance works correctly. Installation positions in which water may collect in the sensor should also be avoided.

Further information which should be observed when using humidity sensors with a capacitive sensor element can be found A1) or by asking the manufacturer.

in the sensor elements application information (product info no.

PLEASE NOTE! The operating voltage is conducted internally via a bridge rectifier, meaning that at the HSF2 sensors, the minus pole of the supply voltage does not correspond

to the reference potential of the analogue output.

Technical data

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Adjusting the sensor	unit at	90 %rh ±2%rh
		hysteresis 3%rh
Voltage supply	15	530VDC / 24VAC ±10%
		IP 65
power consumption		
Relay off	'approx.1 mA/"	Relay on" approx. 14 mA
Weight		approx. 85g
Contacting		cable connection 1.5 m ¹⁾
Range of operating t	emperature	20+70°C
EMC according to	DIN EN 61326-	1
•	DIN FN 61326-	2

1) Further cable lengths on request.

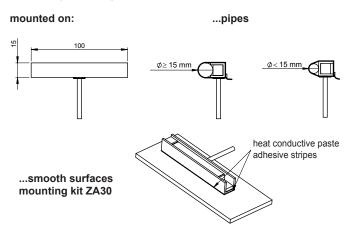
Type HSF2.KW.F300.F00.1K0

Switching output p	otential-free changeover contact
voltage	max. 48V
switching current	max. 0.5A
Switching power	max. 10W
	010V
Output range	50100%rh
Accuracy (MR 5095% rh, a	t 23°C) ±2%rh

Type HSFS.KW.0000.F00.1K0

Switching output	potential-free changeover contact
voltage	max. 48V
switching current	max. 0.5A
	max. 10W

Assembly drawing



Connection assignment

	Wire colour	Connection
Supply	brown	- (~)
	green	+ (~)
Analogue output	white	010 V
(only for HSF2)	yellow	GND
	blue	make contact
Relay output	pink	break contact
	grey	COMMON

This information is based on current knowledge and is intended to provide details of our products and their possible applications. It does not, therefore, act as a guarantee of specific properties of the products described or of their suitability for a particular application. It is our experience that the equipment may be used across a broad spectrum of applications under the most varied conditions and loads. We cannot appraise every individual case. Purchasers and/or users are responsible for checking the equipment for suitability for any particular application. Any existing industrial rights of protection must be observed. The perfect quality of our products is guaranteed under our General Conditions of Sale. Issue: January 2017 HSF_e. Subject to modifications.