WK01+ 24 V

Condensation detector

thermokon®
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
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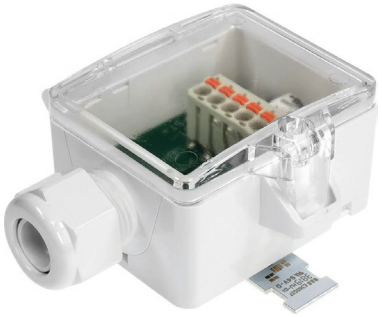


Illustration similar

» APPLICATION

Condensation sensor with LED signal designed to provide a switched output signal to prevent condensation on chilled surfaces such as chilled beams. With signaling LED and relay contact for control and monitoring applications or for series connection with the cooling valve in order to interrupt the cooling water flow directly at the beginning of condensation.

» TYPES AVAILABLE

Condensation sensor – 24 V

- WK01+ 24 V

» SECURITY ADVICE – CAUTION

The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

» PRODUCT TESTING AND CERTIFICATION

CE

Declaration of conformity
The declaration of conformity of the products are available on our website
https://www.thermokon.de/direct/en-gb/categories/wk01plus

» NOTES ON DISPOSAL

The crossed-out wheelie bin symbol indicates that the product or removable batteries must not be disposed of with household or commercial waste. Within the EU, you are legally obliged to dispose of the product separately and appropriately in accordance with the national laws of your country. Alternatively, please contact your supplier or Thermokon Sensortechnik GmbH. Further information can be found at: www.thermokon.com

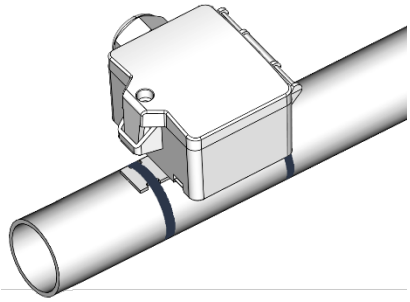
»TECHNICAL DATA

Measuring values	humidity
Output switch contact	changeover contact, 24 V: max. 24 V / 1,0 A (resistive, floating)
Power supply	15..24 V = (±10%) SELV or 24 V ~ (±10%) SELV
Power consumption	typ. 0,8 W (24 V =) | 1,6 VA (24 V ~)
Display	LED green – power supply OK, LED red – condensation
Enclosure	enclosure USE-S, PC, pure white, cover PC transparent, with removable cable entry
Protection	IP65 according to EN 60529
Cable entry	Flextherm M20, for wire max. Ø=0.18..0.35 in., removable
Connection electrical	removable plug-in terminal, max. 14AWG
Ambient condition	-4..+140 °F, max 85% rH, short term condensation
Delivery content	1x syringe with terminal contact fluid

»USE ENCLOSURE WITH UV AND WEATHER RESISTANCE

After some time, outdoor mounted plastics can lose their color and quality. Therefore, all USE housings are made of special white polycarbonate (PC). The light-stable colorants and additives are used to achieve optimum protection of the polymer while maintaining color stability. The titanium dioxide used is specially developed for polycarbonate and offers excellent UV protection through the reflection of the entire light spectrum including the UV component by 340 nm. This effectively counteracts the otherwise occurring photochemical polymer degradation. The colors stay full for a long time without fading. The material is also resistant to cold and frost.

»MOUNTING ADVICE



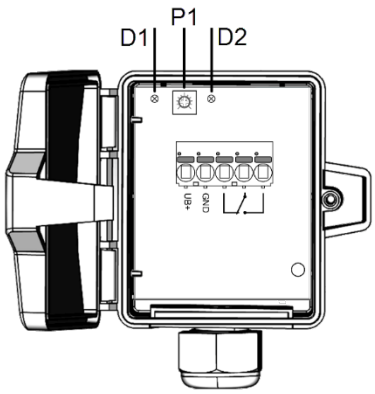
For detection of water condensation, the sensor must be mounted on the coldest point of the medium. Please ensure a good thermal contact to the measuring medium. A thermal connection between sensor und medium with heat conducting paste is necessary. Mounting effects by means of included cable ties (binders). Mounting can be made directly on a pipeline.

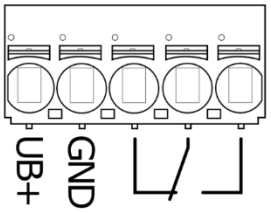
The sensor surface may be damaged by an aggressive and solvent-contaminated ambient. Always keep the sensor clean and free of dust and dirt. A dirt film may affect the sensor's switching characteristic.

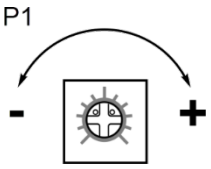
»APPLICATION NOTICE

After a certain time, dirt in the air can collect on the sensor and then adversely affect the operation of the sensor. Under normal ambient condition an annual maintenance is recommended. Rinse the sensor after cleaning with distilled water and dry it using clean oil-free air or nitrogen.

»CONNECTION PLAN



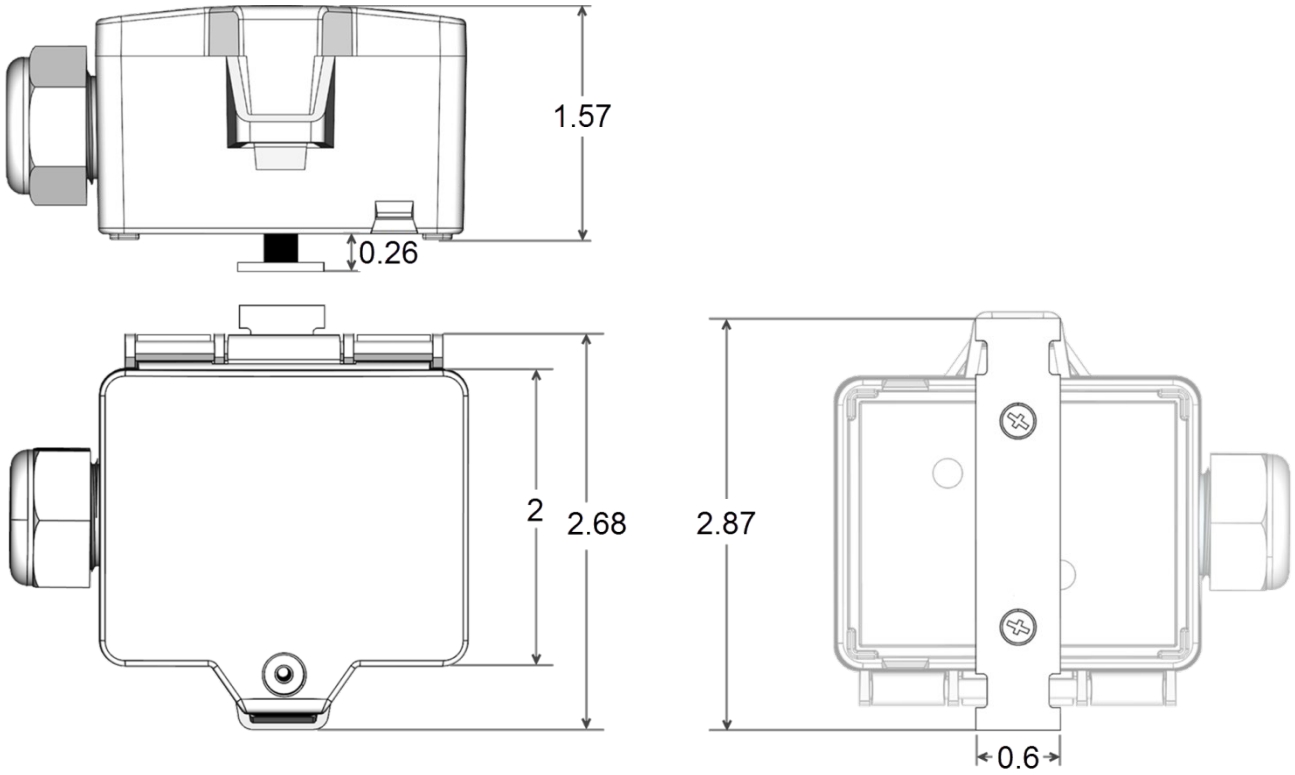




D1	LED red – dew permeation
D2	LED green – power supply OK
P1	Potentiometer for adaption of break-over-point **+** = higher switching threshold (higher condensation) **–** = lower switching threshold (less condensation)

The layout of the relay contacts represents the operation status of „devices connected to power supply, no dew permeation“. In this operating state, contacts 3 and 4 are connected to each other. Upon dew permeation or when the operating voltage is switched-off, the relay falls off.

»DIMENSIONS (IN.)



»ACCESSORIES (INCLUDED IN DELIVERY)

Syringe with terminal contact fluid	Item No. 102308
Cable ties 5.5x0.15 in.	Item No. 007610
Mounting kit universal	Item No. 698511
• Cover screw + screw cover• 2 Rawlplugs • 2 Screws (countersunk head) • 2 Screws (rounded head)	

»ACCESSORIES (OPTIONAL)

Sealing insert M20 USE white, 2x Ø=0.28 in. (for 2 wire; PU 10 pieces)	Item No. 641333