Sensor for ambient temperature, relative humidity and dew point
Model EXT-ENV-SENS

WIKA data sheet SP 63.28

Applications

- Condition monitoring for medium-voltage switchgear in conjunction with the reader (AMS01), the antenna (AN-F1) for partial discharge detection by UHF and the passive SAW wireless temperature sensor (TSA-EV11)
- Measuring the ambient temperature, relative humidity and dew point
- Compatible with ANSI and IEC medium-voltage standards
- New installation or retrofitting of medium-voltage switchgears

Special features

- Easy to install and commission
- Maintenance-free
- Comprehensive data communication (local, remote, Modbus®, SCADA, IIoT service)

Environmental sensor, model EXT-ENV-SENS

Description

The advanced monitoring solution for monitoring partial discharge and temperature in medium-voltage switchgear uses surface acoustic wave and ultra high frequency sensing technology. It features an integrated IIoT platform to improve the safety, efficiency and durability of medium-voltage switchgear.

By using condition monitoring systems, approx. 75 % of disruptions can be prevented through early fault detection, thus reducing both maintenance costs and intervals.

The EXT-ENV-SENS environmental sensor is connected to the reader (AMS01) by cable and monitors the ambient temperature, relative humidity and dew point of medium-voltage switchgear. The monitoring of partial discharges is optimised using these values.

The sensor can only be used in metal spaces such as control cabinets. It is IEC 62271 compliant and can therefore be used in switchgear worldwide without a licence.
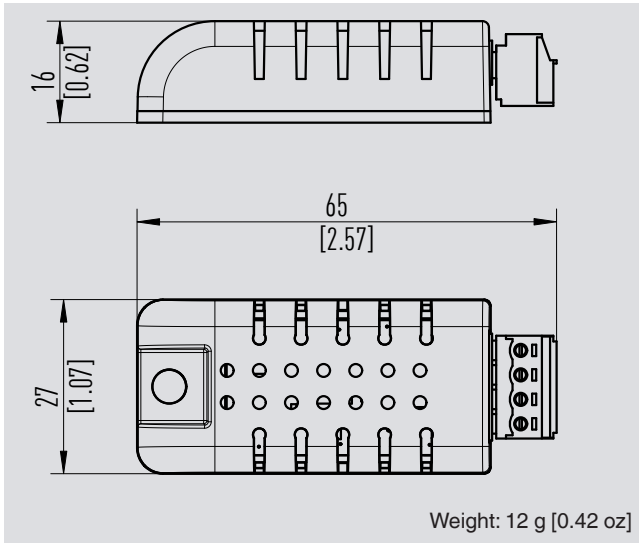
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Smart in sensing

Specifications

Operating conditions	
Place of use	Indoor
Temperature of use / Operating temperature	-25 ... 125 °C [-13 ... 157 °F]
Mounting type	M4 screw (not included)
Ingress protection of the complete instrument	IP40
Case	ABS, black
Weight	12 g [0.42 oz]

Interface	
Protocol standard	I^2C
Connector	4-pin terminal block, pitch 3.81 mm [0.15 in] (included)
Recommended cable type	4-wire, 0.25 mm^2 (24 AWG), cable ø 5 mm [0.2 in]
Maximum cable length	6 m [19.7 ft]

Temperature measurement	
Accuracy	-25 ... 125 °C [-13 ... 157 °F] ±2 K

Humidity measurement	
Operating range	0 ... 100 % r. h.
Accuracy	± 10 % r. h.

Dimensions in mm [in]

Weight: 12 g [0.42 oz]

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