

Product overview

Condensation detector as protection device against dew permeation on cooling ceilings. For locking on to control and display systems, in order to interrupt the cooling water flow. The device includes sensor and electronics, status LED and relay contact.

The integrated measuring element detects dew of the basic sensor plate. The plate of the sensor fits close to the medium and transfers cold to the measuring element.



Types available

Type code	Type	Description
EXT-TN-1071351	WK01 24V	Condensation monitor, DC or AC 24V
EXT-TN-1066746	WK01ext 24V	Condensation monitor, DC or AC 24V, with remote sensor (wire length 2m)

Technical data

Standards	CE conformity	- 2004/108/EG Electromagnetic compatibility - 2001/95/EG Product safety
	EN conformity	- EN60730-1:2002 EMC - EN60730-1:2002 Product safety
General data	Enclosure	Polyamide, Colour white
	Protection	IP65 according to EN60529
	Cable entry	Single entry, M20 for cable max. D=8mm
	Basic sensor plate	Copper, 80mm x 15mm x 1.5mm
	Clamps	Pluggable terminal max. 1.5mm ²
	Ambient temperature	-35...70°C
	Transport	-35...70°C, max 85% RH, non-condensating
	Weight	190g
Type WK01 / WK01ext	Power supply	DC 15-24V(±10%) or AC 24V(±10%)
	Power consumption	Typical 0.8W / 1.6VA
	Switching output	Relay with change-over contact, floating, load max. 24V / 1A (ohmic)
	Contact material	AgNi + Au (5µm)
	Sensor wire length (WK01ext only)	2m

Security advice

The installation and assembly of electrical equipment may only be performed by a skilled electrician. Isolate installation before removal of cover (disconnect fuse) and protect against reconnection.

The modules must not be used with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people or animals.

Electrical connection

The condensation detector is constructed for the operation of DC or AC 24V SELV (WK01 and WK01ext). For the electrical connection, the technical data of the corresponding device is valid.

The devices must be operated at a constant supply voltage. When switching the supply voltage on/off, power surges must be avoided on site.

Mounting advice

For detection of water condensation, the sensor must be mounted on the moistest point of the medium. Please ensure a good thermal contact to the measuring medium. We recommend the use of contact fluid on the connector sensor / medium.

Mounting effects by means of included cable ties (binders). Mounting can be made directly on a pipeline.

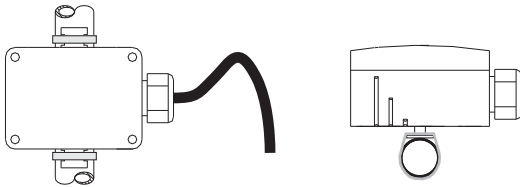
When measuring clean air, the measuring element becomes maintenance free. Aggressive and solvent atmosphere might, depending on type and concentration, damage the sensor. Moreover, such atmosphere could lead to measuring errors. This is the same for dirt on the sensor foil.

Mounting advice (cont.)

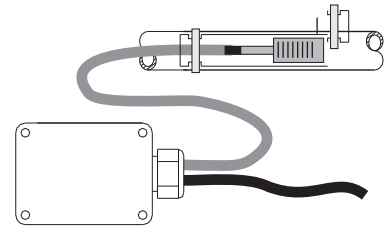
Adjustment of break-over point

According to local conditions, the threshold value (break-over point) must be adapted accordingly. The adaption is made by means of the trimming potentiometer within the housing.

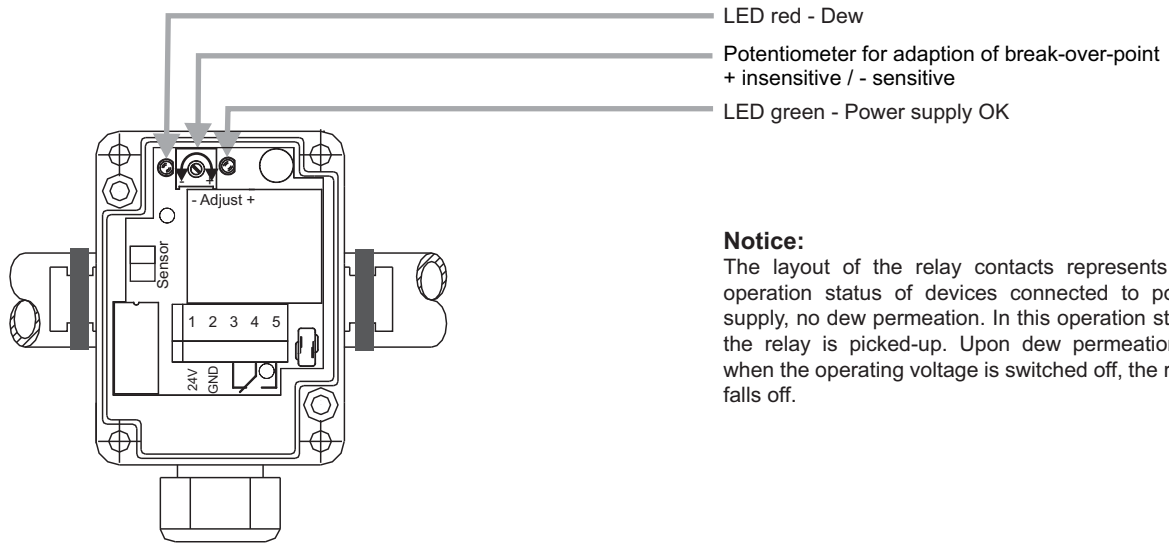
WK01



WK01ext



Terminal connection plan



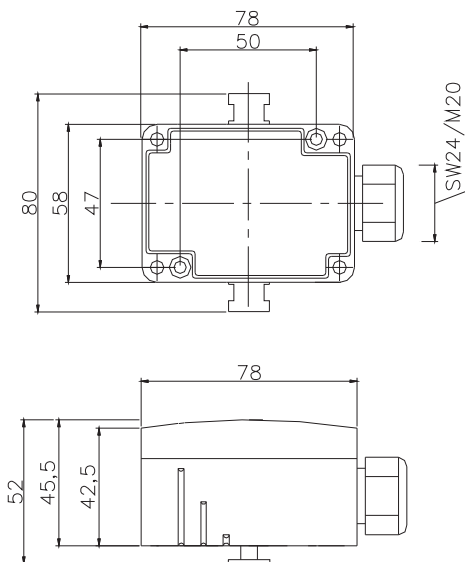
WK01 / WK01 ext

Notice:

The layout of the relay contacts represents the operation status of devices connected to power supply, no dew permeation. In this operation status the relay is picked-up. Upon dew permeation or when the operating voltage is switched off, the relay falls off.

Dimensions (mm)

WK01



WK01ext

