KA10 Condensation Sensor / Switch

Condensation switch KA 10 is designed for detecting water condensation in cooling systems, for example in cooling beams. With the condensation switch it is possible to control the cooling water supply when the water starts to condensate on the pipe.

The condensation information is provided with a 0..10 Vdc signal and a relay output. The relay operating point can be adjusted with a trimmer.

The indicator light on the circuit board is lit when the relay is energized. This helps when setting the relay operation point.

The condensation sensor element is based on an aluminium circuit board which provides fast response time.

The condensation sensor contact surface is equipped with thermally conducting tape. This ensures a good heat transfer between the pipe and sensor. The tape enables also clean and fast mounting.

The KA 10-EXT model has an external condensation sensor. The element cable length is 2 m. The external sensor must be mounted on the side or under the pipe. In a dusty environment it is recommended to mount the sensor under the pipe.

Model Type

Model	Description
KA10	Condensation Sensor / Switch
KA10-EXT	Condensation Sensor/Switch with External Sensor, 2m Cable

Technical Data

Power Supply	24Vac/dc (22..28V)
Power Consumption	< 2VA
Outputs	0..10Vdc: Condensation Level Relay 24Vac/dc, 1A: Condensation Switch
Enclosure	IP54, M16Cable Gland Downwards
Operating Temp	+0..+50°C
Pipe Mounting (KA10)	With two cable tie on the side of the pipe
Pipe Mounting (KA10-EXT)	Sensor: With two cable tie on the side or below of the pipe Enclosure: With screws on the wall
Cable Length (KA10-EXT)	2m
Dimensions	W84 x H98 x D46mm

Wiring

G	24 Vac/dc
G0	0V
Y1	Condensation Output, 0..10Vdc
NO	Normally Open Contact
NC	Normally Closed Contact
C	24V relay Common

Condensation Sensor Output

The KA10 condensation sensor has modulating 0..10Vdc output provides linear relationship on between the condensation level and the 0..10Vdc output. In additon the relay operation level can be set according to the internal trimmer setting (please see the below table).

Trimmer Position	Relay Operation Level (Based on Y1 Output)
0%	1.7V
50%	4.4V
100%	7.7V

Mounting Instructions