

Rain Monitor

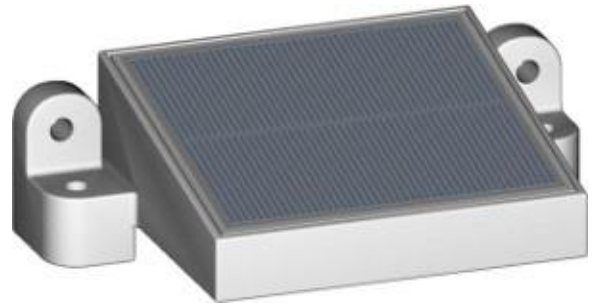
5.4106.00.x0x

Instruments for:
METEOROLOGY
HYDROLOGY
WATER QUALITY
AIR QUALITY
AIR & GASFLOW

KRITECH

Rain Monitor with durable ceramic

The rain monitor is designed to act as a sensor detecting the start and end of precipitation. It is used as a status indicator or sensor for controlling downstream safety devices (control units) protecting windows, ventilation flaps, sunblind's, awnings, etc. The sensor area takes the form of a capacitor on glass-coated ceramic. Glass passivation ensures that the rain monitor is extremely environment-resistant as well as robust while offering good long-term stability and resistance to aggressive media.



Mode of Operation

Whenever precipitation strikes the rain monitor and wets the sensor surface, this changes the capacitance of the surface, so triggering a switching signal, i.e. wetting of the sensor surface signals the precipitation status "yes". To protect the sensor surface from bedewing and icing-up, it is heated to an over-temperature of approx. 2 K. When the sensor surface is wetted, it is adjusted to approx. 10 K above the ambient temperature, so ensuring fast faster drying. Once it has dried, the device switches to the precipitation status "no".

Order No	
5.4106.00.000	Semiconductor relay, potential free, electrically isolated (precipitation "no" : contact closed / precipitation "yes" : contact open)
5.4106.00.001	Semiconductor relay, potential free, electrically isolated (precipitation "no" : contact open / precipitation "yes" : contact closed)
5.4106.00.100	Semiconductor relay, potential free, electrically isolated (precipitation "no" : contact 1 open, contact 2 closed precipitation "yes" : contact 1 closed, contact 2 open)
Technical Data	
Measuring value	Precipitation (yes / no)
Signal output	Semiconductor relay, potential-free, electrically isolated
Relay - contact load	26 VAC / 36 VDC, max. 0,5 A ($\cos \varphi > 0.9$), 0,2 A ($\cos \varphi = 0,4$)
Switch-on delay	< 0,5 sec
Switch-off delay	approx.. 15 sec.
Operating voltage	11...28 VAC or 11...32 VDC - polarity inversion protection
Power consumption	Heating off : < 15 mA / Heating on : max. 0,75 A
Collecting area	18 cm ²
Measuring principle	ceramic, capacitive sensor
Sensitivity	approx. 0,2 mm/h
Ambient temperature	-30...+60°C
Protection	IP 66 acc. to DIN 40050
Dimensions	77 x 49 x 37,5 mm
Weight	approx. 160 g
Mounting	pole or wall mounting
Material	Housing : Polycarbonate (PC), UV-stabilized, white (RAL 9010) Sensor : Ceramic (aluminum oxide AL ₂ O ₃), glass-coated Fixing kit : Stainless steel 1.4301 for pole mounting.
Connection	5.4106.00.000 : cable, non-detachable, type: LiYY 4x 0,25mm ² ; length : 3 m
	5.4106.00.100 : cable, non-detachable, type: LiYY 5x 0,14mm ² , length : 3 m