

# Precipitation Detector

## HD2013.3

**Delta OHM**

Member of GHM GROUP

### DETECTION OF ALL TYPE OF PRECIPITATION

Rain - Snow - Hail

Capacity value changes according to the surface dampened by raindrops

### RAIN DETECTION WITH ANY PRECIPITATION INTENSITY

It detects from light to heavy rain

It can detect light precipitation thanks to a new drizzling detection algorithm

### MADE TO OPERATE UNDER ANY CONDITION

Extended operating range up to -40 °C

Heater and temperature sensor to melt snow and detect snow precipitation

### ACCURATE AND RELIABLE SYSTEM

Using a unique **self-calibrating algorithm**: dirt on the surface will not influence the readings

### GREAT FLEXIBILITY

Integrating in any installation

### NO MAINTENANCE

**Auto-calibration** to improve sensitivity and compensate the sensor aging and dirt



Ideal for applications in any  
Meteo system

Environmental Monitoring  
Building Automation  
Green Houses  
Road Installations

## Measuring rain intensity without maintenance

The **RELIABLE** and **ACCURATE** solution where optical rain sensors fail. Delta OHM introduces a renewed and advanced version of the HD2013.2 rain detector. This detector has been in our range for years as one of the most reliable and successful products. To make sure that the sensor is even more simple to integrate in any outdoor installation or configuration, we now have enhanced the possibilities to connect: we supply this version in Modbus-RTU or 4-20 mA or 0-10 V or contact output.

## Our standard features:

- capacitive element is shielded from wind by the protecting dome construction: no false indications
- capacitive element is heated to be able to detect any form of precipitation, including snow and hail
- can be standard equipped with bird-spikes
- supplied with heavy duty mounting bracket, universal for surface or pole mounting
- standard cable lengths 5 or 10 meter

## Technical Specification

### PRECIPITATION SENSOR

Type	Capacitive, with integrated heater
Dimensions	6.6 cm <sup>2</sup>
Angle	30°
Sensitive area	0.05 cm <sup>2</sup> min.

### TEMPERATURE SENSOR

Sensor	NTC 10KΩ @ 25 °C
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### MEASURING RANGE

Precipitation detection	ON / OFF (precipitation in progress / no precipitation) Percentage of dry sensitive surface of the sensor
Temperature	-40...+60 °C

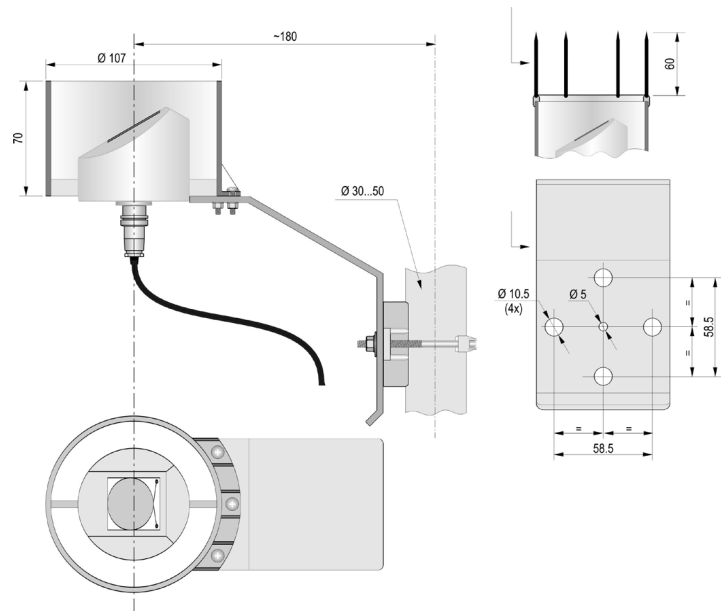
### RESOLUTION

Precipitation detection	Configurable 1 % (default) or 0.1 % of dry sensitive surface of the sensor
Temperature	0.1 °C

### GENERAL FEATURES

Output	<ul style="list-style-type: none"> <li>RS485 not isolated, with MODBUS RTU or proprietary protocol</li> <li>Analog 0/4...20 mA (<math>R_{Lmax} = 500\Omega</math>) or on request 0...10 V (<math>R_{Lmin} = 10\text{ k}\Omega</math>)</li> <li>Voltage-free normally open contact max. 200 mA @ 30 Vdc resistive load</li> </ul>
Power Supply	12...30 Vdc
Consumption	With heating OFF: 18 mA @24 Vdc With heating ON: 230 mA max @24 Vdc The indicated consumption does not include the consumption due to the possible analog output
Connection	8-pole circular connector
Operating conditions	-40...+60 °C / 0...100 %RH
Storage temperature	-40...+60 °C
Dimensions	Ø 70 x 70 mm (only instrument)
Weight	450 g approx.
Protection degree	IP 68
Housing material	Technopolymer ASA

## Dimensions



## Ordering Codes

**HD2013.3** Rainfall/snowfall detector. IP68. RS485 output with MODBUS-RTU or proprietary protocol, 0/4...20 mA (0...10 V on request when ordering) analog output and voltage-free contact output.

Supplied with mounting bracket and 8-pole watertight female free connector.

**Bird spikes (optional) and CP2013.2...cable have to be ordered separately.**

**HD2013.2D** Bird spikes (6 spikes Ø 3 mm, height 60 mm). To be requested when ordering the instrument.

**CP2013.2.5** Cable with 8-pole watertight connector on one end, free wires on the other end. Length 5 m.

**CP2013.2.10** Cable with 8-pole watertight connector on one end, free wires on the other end. Length 10 m.

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In order to ensure the quality of our instruments, we are constantly re-evaluating our products. Improvements can imply changes in specification; we advise you to always check our website for the newest version of our documentation.

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**Delta OHM S.r.l.**

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