Tipping Bucket Rain Gauge

HD2015

WATER, SNOW OR ICE...WE MEASURE IT ALL

Versions with heating to measure
all kind of precipitation

ACCURATE AND RELIABLE SYSTEM

Individual **calibration**
Internal leveling device for
perfect horizontal positioning

SMART DESIGN - LONG STABILITY PERFORMANCE

Corrosion resistance materials
Rugged design

DATA WHERE YOU NEED IT

Direct cloud visualization when combined with
our loggers. Or with **local database** if preferred.

WMO COMPLIANT

Developed and designed
according to **WMO guidelines**

Member of GHM GROUP

Main Applications

Meteorology
Early warning systems
Agriculture
Agrometeorology
Hydrology

200 cm^2 tipping bucket rain gauge: according to recommendations of WMO

Reliability, accuracy and durability. That is the basic thought behind the design of the HD2015. Completely constructed of corrosion resistant materials, the HD2015 rain gauge is built to **withstand even extreme conditions**. To guarantee a wide range of use, depending on the environment where the rain gauge is placed, there is a choice between heated or non-heated version.

The principle of a tipping bucket rain gauge is simple: depending on the quantity of rainfall, **the tipping bucket mechanism fills and empties.** Every tipping action operates a reed contact: in this way, counting the quantity of the rainfall. This means that the tipping bucket has one enormous advantage: it needs no power supply to operate. Power supply is only a necessity when circumstances demand heating because of low environmental temperatures.

Reading the **number of counts**, in other words reading the rainfall, can be done by using a datalogger. This can be a rain indicator datalogger such as HD2013-DB as well as a datalogger of the HD33 series with built-in 4G/3G/GPRS modem for a direct communciation of the measured data to the Delta OHM Cloud or a to an own secured server.

When ordering, the rain gauge is **completely setup to be used.** Easy to install, adjustable feet and leveling device integrated. Bird spikes and accesories for raised mounting available.

Technical Specification

Principle	Tipping Bucket
Type of precipitation	Liquid, mixed*, solid*
Collector area	200 cm²
Contact output	Voltage free
Power supply*	12 Vdc or 24 Vdc ± 10% / 50 W (to be specified when ordering)
Resolution	0.1 – 0.2 or 0.5 mm/tip
Accuracy	± 2 % (using correction curves)
Maximum rainfall rate	600 mm/h (0.1 - 0.2 res. versions) 1000 mm/h (0.5 res. version)
Operating temperature range	0 °C…+70 °C -20 °C…+70 °C*
Heating intervention temperature*	+4 °C
Protection Degree	IP65
Minimum section of the wires of the connecting cable	0.5 mm² 2.5 mm²*

* Specifications refer to the version with heating system HD2015R

The rain gauge is supplied **already calibrated** and the calibration value (resolution) is shown on the instrument label.
If the amount of rain is calculated using the correction curve as a function of the rainfall rate, the error is typically less than ± 2% in the interval 0…200 mm/h.
If the HD2013-DB data logger is used, the measurement can be automatically corrected according to to the graphs available in the instrument's operating manual.
With the analog and SDI-12 output options, the curve can be stored in the rain gauge itself.

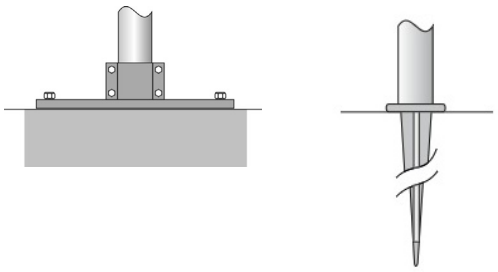
Installation modes

The rain gauge can be installed on the ground or raised 500 mm or 1 m above the ground (see ordering codes scheme).

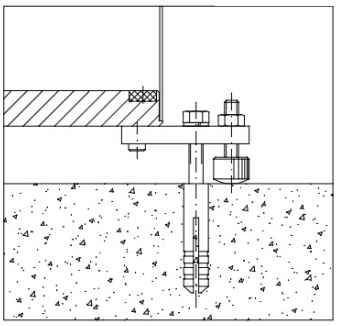
Flat base for floor fixing — HD2003.78

Base with ground tip — HD2003.75

Raised above ground



Ground installation



Ordering Codes

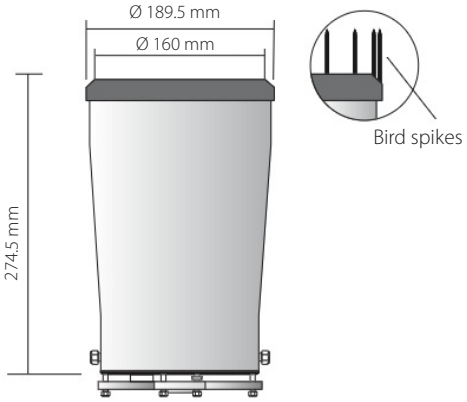
HD2015

Mast (Ø40 mm) / bird spikes kit:
Blank = ground installation with feet, without bird spikes (default)
H0 = with support for mast installation, without bird spikes
H1 = 1 m mast installation kit, without bird spikes
H5 = 500 mm mast installation kit, without bird spikes
K = ground installation with feet, with bird spikes
K0 = with support for mast installation, with bird spikes
K1 = 1 m mast installation kit, with bird spikes
K5 = 500 mm mast installation kit, with bird spikes

Heating
Blank = not heated (default)
R = heated – power voltage 24 Vdc
R1 = heated – power voltage 12 Vdc

Resolution
Blank = 0.2 mm (default)
/1 = 0.1 mm
/5 = 0.5 mm

Dimensions



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In order to ensure the quality of our instruments, we may have to develop our products. We may make changes or corrections at any time. Check on our website to make sure your documentation is up to date.

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