

# Датчики осадков DELTA OHM HD2015

## Технические характеристики

<b>Архангельск</b> (8182)63-90-72	<b>Ижевск</b> (3412)26-03-58	<b>Магнитогорск</b> (3519)55-03-13	<b>Пермь</b> (342)205-81-47	<b>Сургут</b> (3462)77-98-35
<b>Астана</b> (7172)727-132	<b>Иркутск</b> (395)279-98-46	<b>Москва</b> (495)268-04-70	<b>Ростов-на-Дону</b> (863)308-18-15	<b>Тверь</b> (4822)63-31-35
<b>Астрахань</b> (8512)99-46-04	<b>Казань</b> (843)206-01-48	<b>Мурманск</b> (8152)59-64-93	<b>Рязань</b> (4912)46-61-64	<b>Томск</b> (3822)98-41-53
<b>Барнаул</b> (3852)73-04-60	<b>Калининград</b> (4012)72-03-81	<b>Набережные Челны</b> (8552)20-53-41	<b>Самара</b> (846)206-03-16	<b>Тула</b> (4872)74-02-29
<b>Белгород</b> (4722)40-23-64	<b>Калуга</b> (4842)92-23-67	<b>Нижний Новгород</b> (831)429-08-12	<b>Санкт-Петербург</b> (812)309-46-40	<b>Тюмень</b> (3452)66-21-18
<b>Брянск</b> (4832)59-03-52	<b>Кемерово</b> (3842)65-04-62	<b>Новокузнецк</b> (3843)20-46-81	<b>Саратов</b> (845)249-38-78	<b>Ульяновск</b> (8422)24-23-59
<b>Владивосток</b> (423)249-28-31	<b>Киров</b> (8332)68-02-04	<b>Новосибирск</b> (383)227-86-73	<b>Севастополь</b> (8692)22-31-93	<b>Уфа</b> (347)229-48-12
<b>Волгоград</b> (844)278-03-48	<b>Краснодар</b> (861)203-40-90	<b>Омск</b> (3812)21-46-40	<b>Симферополь</b> (3652)67-13-56	<b>Хабаровск</b> (4212)92-98-04
<b>Вологда</b> (8172)26-41-59	<b>Красноярск</b> (391)204-63-61	<b>Орел</b> (4862)44-53-42	<b>Смоленск</b> (4812)29-41-54	<b>Челябинск</b> (351)202-03-61
<b>Воронеж</b> (473)204-51-73	<b>Курск</b> (4712)77-13-04	<b>Оренбург</b> (3532)37-68-04	<b>Сочи</b> (862)225-72-31	<b>Череповец</b> (8202)49-02-64
<b>Екатеринбург</b> (343)384-55-89	<b>Липецк</b> (4742)52-20-81	<b>Пенза</b> (8412)22-31-16	<b>Ставрополь</b> (8652)20-65-13	<b>Ярославль</b> (4852)69-52-93
<b>Иваново</b> (4932)77-34-06	<b>Лиргизия</b> (996)312-96-26-47	<b>Казахстан</b> (772)734-952-31	<b>Таджикистан</b> (992)427-82-92-69	

Единый адрес для всех регионов: [dmh@nt-rt.ru](mailto:dmh@nt-rt.ru) || [www.deltaohm.nt-rt.ru](http://www.deltaohm.nt-rt.ru)

# 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**



### Main Applications

Meteorology  
Early warning systems  
Agriculture  
Agrometeorology  
Hydrology

## 200 cm<sup>2</sup> 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 locally by using a local (battery operated) datalogger. But it is also possible to communicate directly the results through one of our dataloggers of the HD33 series. The built-in 4G/3G/GPRS modem makes it easy to upload the data directly to one of our cloud applications or to your own secured server.

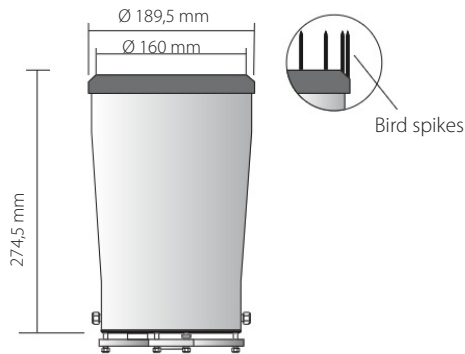
When ordering, the rain gauge is completely setup to be used. Easy to install, adjustable feet and leveling device integrated. Bird spikes and accesories for raised mounting available.

## Technical Specification

Principle	Tipping Bucket
Type of precipitation	Liquid, mixed*, solid*
Collector area	200 cm <sup>2</sup>
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 - see graphs)
Maximum rainfall rate	600 mm/h (0.2 res. version) 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 mm <sup>2</sup> 2.5 mm <sup>2</sup> *

\* Specifications refer to the version with heating system HD2015R

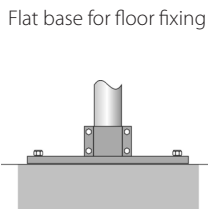
## Dimensions



## Installation modes

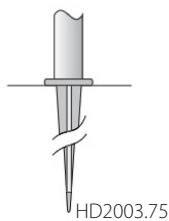
Raised above ground

Ground installation

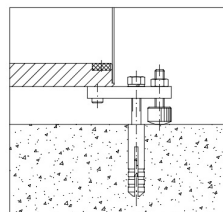


HD2003.78

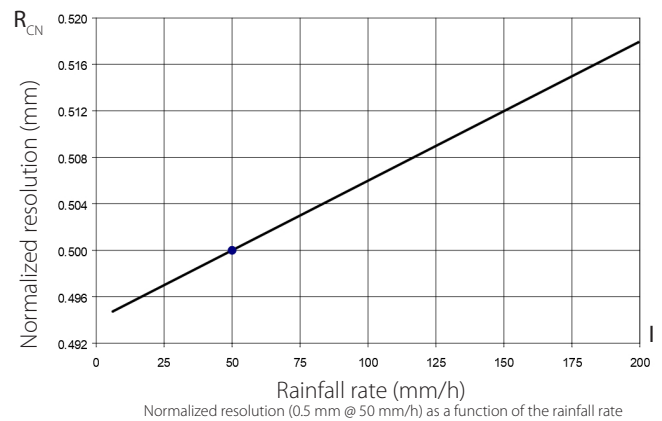
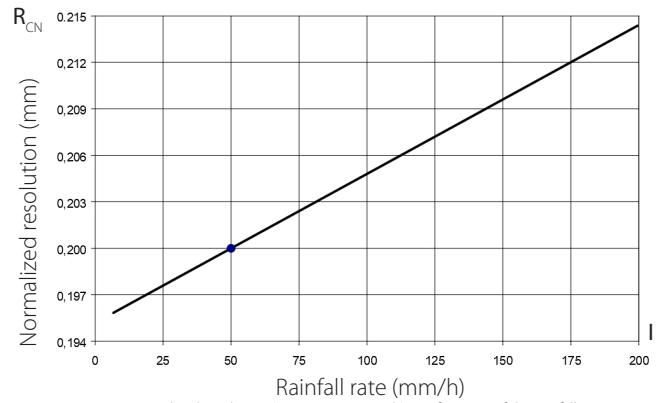
Base with ground tip



HD2003.75



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 and less than ± 4% for rainfall rate greater than 200 mm/h. If the HD2013-DB data logger is used, the measurement can be automatically corrected according to the following graphs.



## Ordering Codes

HD2015



Blank = Operating temperature 0...+70°C  
R = Operating temperature -20...+70 °C.

\* Resolution 0.1, 0.2 or 0.5 mm to be defined when placing the order.

## Accessories

- HD2013.18 Bird dissuader (eight spikes Ø 3 mm, height 60 mm)
- HD2015.5K Kit for the installation of the rain gauge raised 500 mm off the ground and the levelling
- HD2015.5K.1 Kit for the installation of the rain gauge raised 1 m off the ground and the levelling
- HD2015.64K Kit of accessories for the installation of the rain gauge on the top of the mast and the levelling.
- HD2003.75 Flange with tip for the ground
- HD2003.78 Flat base for floor fixing
- HD2013-DB Rain indicator Data Logger with LCD display; reads and stores up to 32,255 pulses.
- HD33... series 4G / 3G / GPRS data logger series for remote communication / Cloud

<b>Архангельск</b> (8182)63-90-72	<b>Ижевск</b> (3412)26-03-58	<b>Магнитогорск</b> (3519)55-03-13	<b>Пермь</b> (342)205-81-47	<b>Сургут</b> (3462)77-98-35
<b>Астана</b> (7172)727-132	<b>Иркутск</b> (395)279-98-46	<b>Москва</b> (495)268-04-70	<b>Ростов-на-Дону</b> (863)308-18-15	<b>Тверь</b> (4822)63-31-35
<b>Астрахань</b> (8512)99-46-04	<b>Казань</b> (843)206-01-48	<b>Мурманск</b> (8152)59-64-93	<b>Рязань</b> (4912)46-61-64	<b>Томск</b> (3822)98-41-53
<b>Барнаул</b> (3852)73-04-60	<b>Калининград</b> (4012)72-03-81	<b>Набережные Челны</b> (8552)20-53-41	<b>Самара</b> (846)206-03-16	<b>Тула</b> (4872)74-02-29
<b>Белгород</b> (4722)40-23-64	<b>Калуга</b> (4842)92-23-67	<b>Нижний Новгород</b> (831)429-08-12	<b>Санкт-Петербург</b> (812)309-46-40	<b>Тюмень</b> (3452)66-21-18
<b>Брянск</b> (4832)59-03-52	<b>Кемерово</b> (3842)65-04-62	<b>Новокузнецк</b> (3843)20-46-81	<b>Саратов</b> (845)249-38-78	<b>Ульяновск</b> (8422)24-23-59
<b>Владивосток</b> (423)249-28-31	<b>Киров</b> (8332)68-02-04	<b>Новосибирск</b> (383)227-86-73	<b>Севастополь</b> (8692)22-31-93	<b>Уфа</b> (347)229-48-12
<b>Волгоград</b> (844)278-03-48	<b>Краснодар</b> (861)203-40-90	<b>Омск</b> (3812)21-46-40	<b>Симферополь</b> (3652)67-13-56	<b>Хабаровск</b> (4212)92-98-04
<b>Вологда</b> (8172)26-41-59	<b>Красноярск</b> (391)204-63-61	<b>Орел</b> (4862)44-53-42	<b>Смоленск</b> (4812)29-41-54	<b>Челябинск</b> (351)202-03-61
<b>Воронеж</b> (473)204-51-73	<b>Курск</b> (4712)77-13-04	<b>Оренбург</b> (3532)37-68-04	<b>Сочи</b> (862)225-72-31	<b>Череповец</b> (8202)49-02-64
<b>Екатеринбург</b> (343)384-55-89	<b>Липецк</b> (4742)52-20-81	<b>Пенза</b> (8412)22-31-16	<b>Ставрополь</b> (8652)20-65-13	<b>Ярославль</b> (4852)69-52-93
<b>Иваново</b> (4932)77-34-06	<b>Лиргизия</b> (996)312-96-26-47	<b>Казахстан</b> (772)734-952-31	<b>Таджикистан</b> (992)427-82-92-69	

**Единый адрес для всех регионов: [dmh@nt-rt.ru](mailto:dmh@nt-rt.ru) || [www.deltaohm.nt-rt.ru](http://www.deltaohm.nt-rt.ru)**