

# RK400-04 Economical Tipping Bucket Rainfall Sensor



RK400-04 Economical Tipping Bucket Rainfall Sensor is a hydrology, meteorological instrument used to measure the nature of rainfall, and it converts the precipitation into a pulse signal output. Designed with insect-proof nets, free blocking nozzle and built-in leveller. The model can be used in meteorology, hydrology, agriculture, forestry, field monitoring stations and other industries .Combined with rainfall recorder can be used to measure measure precipitation, precipitation intensity, precipitation time.

## FEATURES

- ☐ Compact size for easy use
- ☐ High accuracy, good stability
- ☐ Mesh in the funnel preventing debris such as leaves and insects from entering the working of rain sensor
- ☐ Well made tipping bucket with low resistance
- ☐ The main body made of high strength ABS
- ☐ Horizontal Bubble in the bottom
- ☐ Outlet with insect-proof screen



## APPLICATIONS

- ☐ Meteorological monitoring
- ☐ Hydrologic monitoring
- ☐ Natural disaster monitoring
- ☐ Agro meteorological research
- ☐ Climate research

## SPECIFICATIONS

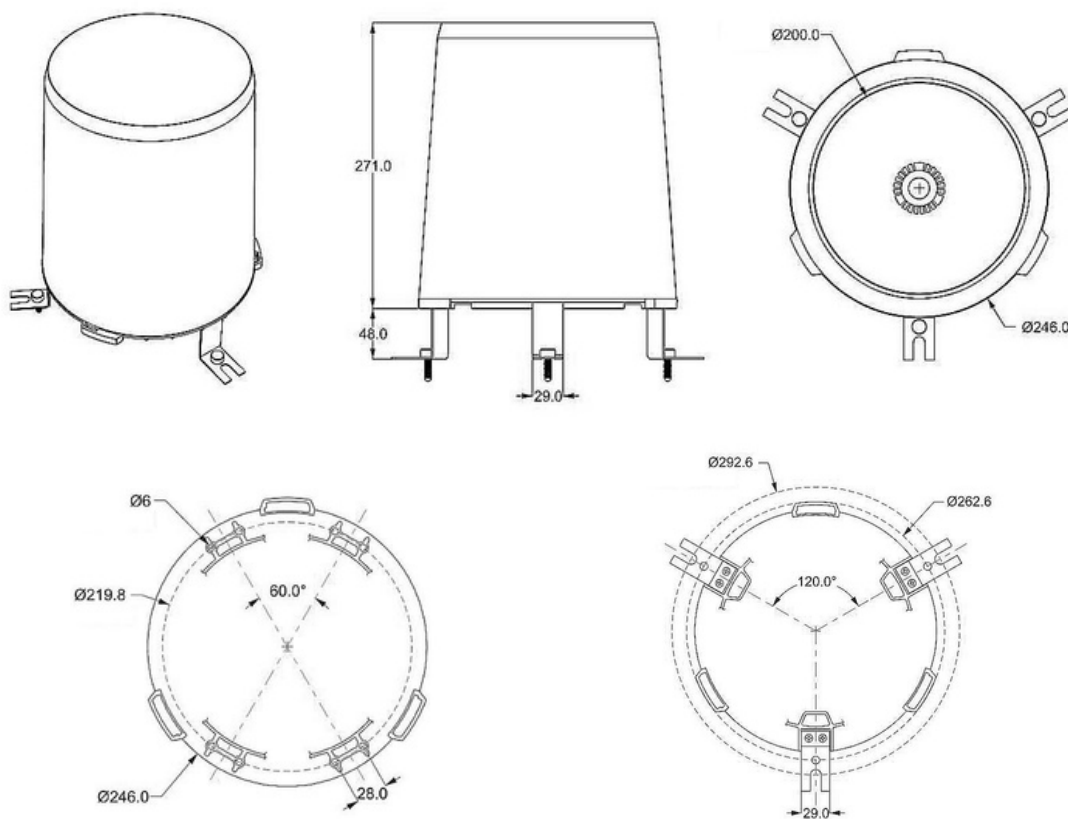
Item	Specification
Collector	Diameter :φ200mm, height: 271mm
Measured rainfall intensity	Max: 4mm/min
Allow rainfall intensity	Max: 8mm/min
Resolution	0.2mm
Accuracy(2mm/min)	±4%
Maximum load voltage	30VDC(pulse output)
Maximum load current	20mA
Output	Pulses(@10kΩ&0.01uF),RS485(12-24VDC supply)
Operating temperature	0-60°C@0%-100%RH
Main material	Rainfall collector & tipping bucket: ABS, Supporting leg:304SS
Weight(unpacked)	2kg

## WORKING PROCESS

Rainfall is captured in the 200mm diameter collector funnel and is directed through a delivery pipe to fill a divided ABS injection molded tipping bucket device. The bucket is pivoted through its center and has a preset calibration to tip for 0.2 mm of rainfall. When the bucket is "full", it pivots and empties - this action magnetically closes and opens a reed switch, sending a pulse signal to the data logger or electronic counter. Through this tipping "seesaw" action, the other side of the bucket is aligned to receive the flow from the delivery pipe. This recording and tipping cycle continues with rainfall.

## DIMENSION & MOUNTING

Adjust the balance foot screws to ensure that it is in a horizontal position. Using three fastening screws to fix this three support legs at the platform to keep the entire apparatus at an optimum level, which ensure the accuracy of rainfall data.



Installation hole position No.1

Installation hole position No.2

## PARAMETER SELECTION TABLE

Remark	Series	Type	Output	Cable Length	
RK					
	400				
		04			
			A		Pulse
			B		RS485(supply:12-24VDC)
			C		Customization
				1500	Units:mm (typ)
				3000	Units:mm
				...	Units:mm

Example: RK400-04A1500    Output:pulse CableLength:1.5m.



Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0

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