

## RK400-07 Tipping Bucket Rainfall Sensor



The RK400-07 Tipping Bucket Rainfall Sensor is an instrument for testing rainfall in the nature. In order to meet the requirement of information transmission, processing, recording and display, the amount of rainfall is converted to pulse output. It can be widely used in weather stations, hydrometric stations, agriculture & forestry, defense & field monitoring stations. It can provide the original data for flood-prevention, water-supply system, and reservoir water management in plant.

### 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
- Highly polished stainless steel construction
- Horizontal Bubble in the bottom
- Rain collector with filter, to prevent the leaves, such as debris jam over the hole
- Double reed switch output



### APPLICATIONS

- Water supply system
- Hydrologic monitoring
- Natural disaster monitoring
- Agro-meteorological research
- Climate research

### SPECIFICATIONS

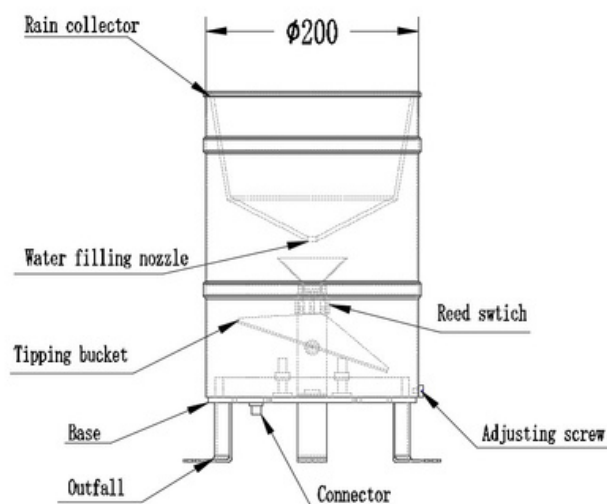
Item	Specification
Rainfall collector	Diameter : $\varnothing$ 200mm, height: 350mm
Measured rainfall intensity	Max: 4mm/min
Allow rainfall intensity	Max: 8mm/min
Resolution	0.5mm, 1mm
Accuracy(2mm/min)	$\pm 3\%$
Maximum load voltage	30VDC(pulse output)
Maximum load current	20mA(pulse output)
Output	Reed switch pulses, RS485(12-24VDC supply)
Operating temperature(no freeze)	-20-+60°C
Main material	Collector:304SS,tipping bucket:ABS,base:304SS

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Tipping bucket	Single
Weight(unpacked)	3kg

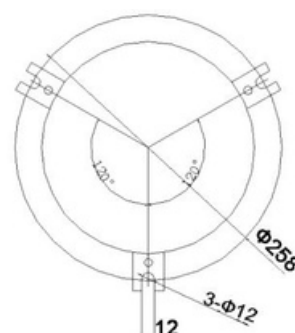
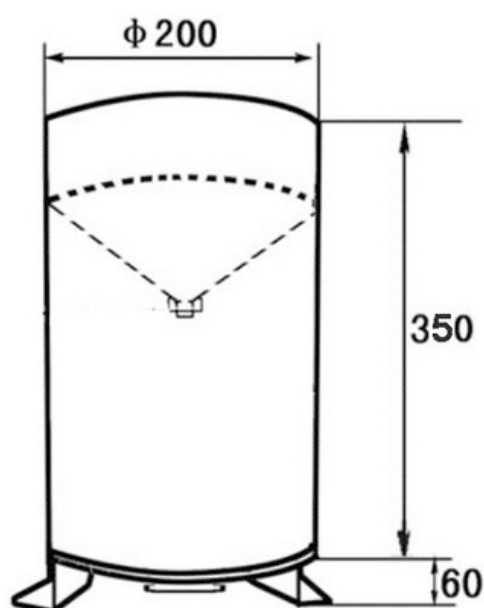
## WORKING PROCESS

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 0.5 mm or 1mm 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

Unit:mm



## PARAMETER SELECTION TABLE

Remark	Series	Type	Output	Resolution	
RK					
	400				
		07			
			A		Pulse(Reed switch)
			X		Other
				A	0.5mm(default)
				B	1mm

Example: RK400-07AA Output:pulse, Resolution:0.5mm,

Appendix:

Rainfall intensity scale	
Scale	24-hour rainfall(mm)
Light rain	1-9.9
Moderate rain	10-24.9
Heavy rain	25-49.9
Rainstorm	50-99.9
Torrential rain	100-200
Super-Torrential rain	>200



Complies with applicable CE directives.  
 Specifications subject to change without notice. Version 3.0  
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