RK400-13 Radar Rainfall Sensor

Overview

RK400-13 is a sensor that uses radar wave technology to detect rainfall. It can distinguish the types of rain, snow and hail and rainfall intensity. Compared with the traditional mechanical rain gauge, the detection is more sensitive and faster, and there is no need to worry about the influence of the cover of leaves and other objects on the surface of the detector for rainfall detection, and no need for heating device to prevent icing. There are no moving parts inside the product, which is maintenance-free, small in size and low in energy consumption.

Features

- Easy installation
- High accuracy, good stability
- Maintenance-free
- Compact size for easy use
- Distinguish rain, snow and hail

Applications

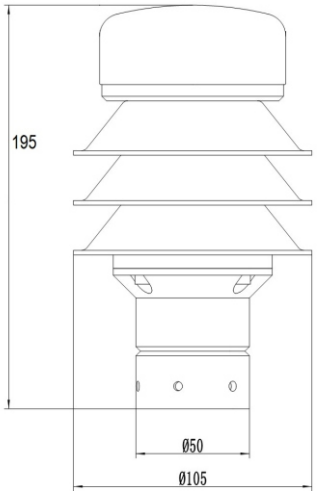
- Flood control in rivers
- Hydrologic monitoring
- Smart city
- Intelligent agriculture
- Climate research

Technical Parameter

Item	Technical Specification
Measurement object	rain, snow, hail
Measured rainfall intensity	0-200mm/h(rainfall)
Sample interval	1s
Resolution	0.1mm
Precipitation diameter	0.5-5.0mm
Accuracy(2mm/min)	±5% (@Wind speed <5m/s)
Power consumption	<2W
Supply	7-24VDC
Output	RS485, RS232, SDI-12 optional
Protocol	Modbus-RTU (default), NEMA-0183, SDI-12
Operating temperature	-30-+70℃
Main material	Aluminum Alloy+ ABS/ABS
Weight(unpacked)	0.65kg/0.38kg

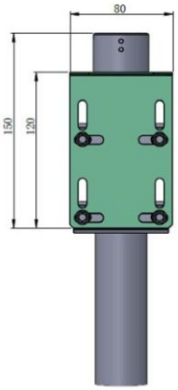
Dimension

Unit:mm

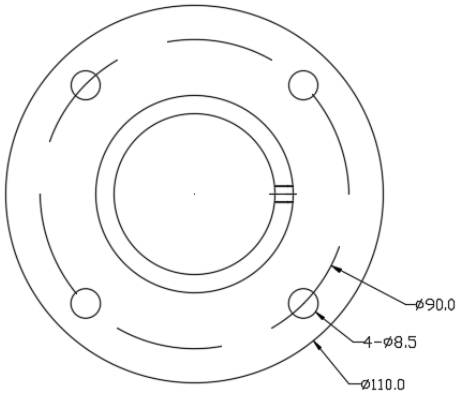


Mounting

RK95-53



RK95-54



Parameter Selection Table

Remark	Series	Type	Output	Protocol	Supply	Mounting bracket	Cable Length	
RK								
	400							
		13						
			A					RS485
			B					RS232
			C					SDI-12
				A				Modbus-RTU (Typ.)
				B				NEMA-0183
				C				SDI-12(Only SDI-12)
					A			7-24VDC
					X			Other
						A		With bracket RK95-53
						B		With bracket RK95-54
						X		Without bracket
							4000	Units: mm(Typ.)
							...	Units: mm

Example: RK400-13AAAX4000 Output:RS485, Protocol: Modbus-RTU, Supply:7-24VDC, Without bracket, Cable Length:4m.

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

Revision time	Reviser	Current Version	Remarks
20250719	Echo	V5. 0	