



RK300-10 Visibility Sensor

Overview

The forward scatter measurement principle and unique design ensure the output accurate and reliable in all weather conditions and will not be influenced by local lights sources, even the flash. With a measurement range of 10m to 10km (Can be extended to 75km), the sensor is constructed from robust aluminum, suitable for use in road and aviation constructed from robust aluminum. Finished with a high quality powder coat, the sensor will provide years of reliable service. Heating of the optical windows and sensor hoods is provided as standard allowing use in the harshest of conditions. Both optical windows are monitored for contamination and the visibility output is automatically compensated to reduce maintenance requirement.

Features

Applicable to highway, port, ship and environmental visibility detection

Using aluminum alloy material, strong and lightweight

Hood heating for use in extreme environments

Simple structure, good working stability, high reliability, low energy consumption, easy to use and maintain

Not affected by local lights

Low maintenance requirement

Applications

Environmental monitoring




Weather station Bridge road

Rain and snow-prone areas

Accident-prone areas

Intense traffic area

Technical Parameter

Item	Technical Specification		
	Type A	Type B	Type C
Type			
Measurement Range	10m-10km(Typ.) , 10m-30km, 10m-75km	10m-10km	10m-10km(Typ.) , 10m-30km
Shell Material	Aluminum alloy		Stainless steel(Suitable for highly saline and humid environment)
Weight(unpacked)	3kg	5.8kg	12kg
Weather Phenomenon	optional		/
Measurement elements of weather phenomenon module	Identify four different types of precipitation: drizzle, light rain, moderate rain, and heavy rain Identify types of states such as rain, snow, thin fog (smoke), thick fog (smoke), etc measure the intensity of precipitation: Measurement range: 0-200mm/h Resolution: 0.1mm (rainfall)		



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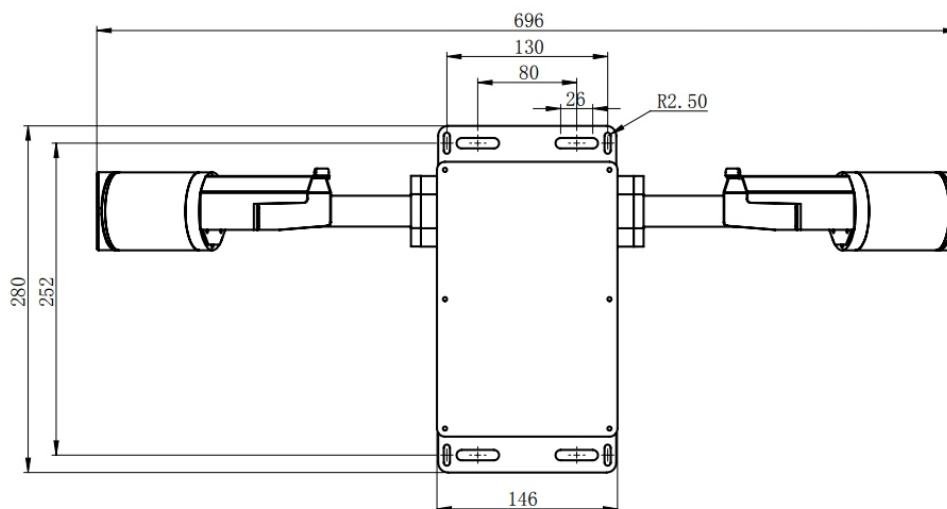
Technical Parameter

Item	Technical Specification
Measurement principle	Forward scatter
Resolution	1m
Accuracy	±10%(10m-10km)
Data update rate	10s
Supply	12-24VDC
Output	RS485,RS232
Power consumption	≤5W
Installation	Hoop installation
Lifetime	>10 Years
Operating temperature	-40℃-+50℃@0-100%RH(No condensation)

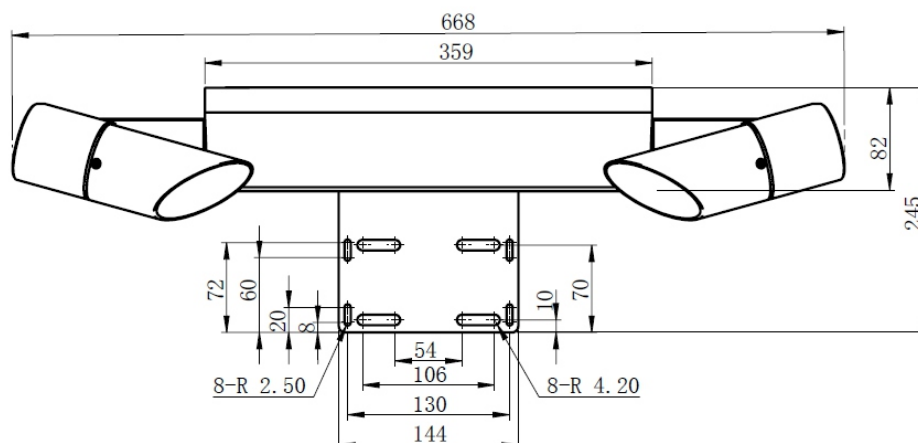
Dimension

Unit:mm

Type A



Type B



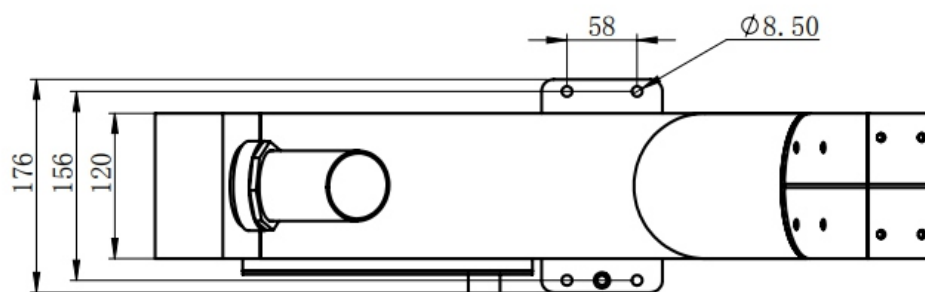
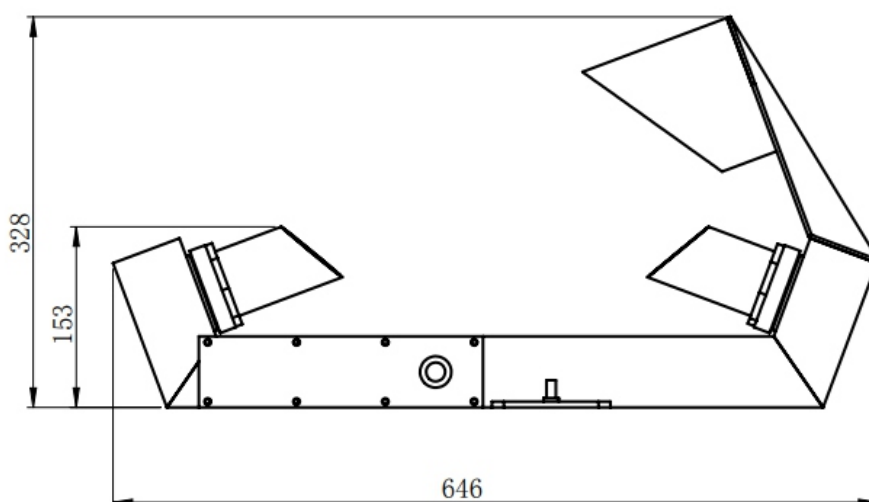
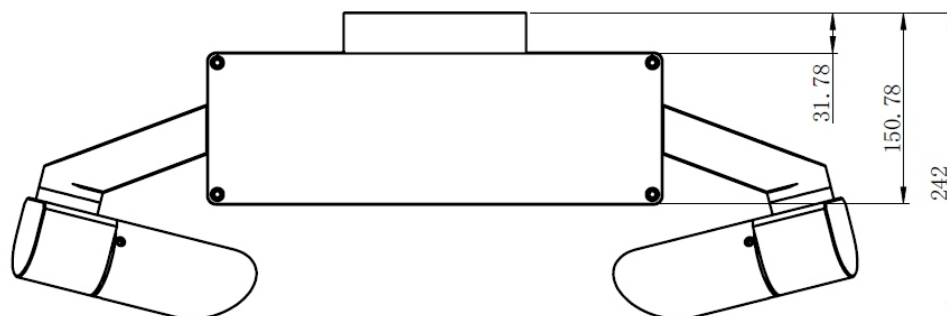


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Dimension

Unit:mm

Type C





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Parameter Selection Table

Remark	Series	Type	Range	Output	Weatherphenomenon	Cable Length	
RK							
	300-10						
		A					Type A
		B					Type B
		C					Type C
			A				10m-10km(Typ.)
			B				10m-30km
			C				10m-75km
			X				Other
				A			RS485
				B			RS232
				X			Other
					A		Type A with weather phenomenon
					B		Type B with weather phenomenon
					X		Without weather phenomenon
						4000	Units:mm(Typ.)
						10000	Units:mm
						...	Units:mm

Example: RK300-10AAAX4000 Type A, Range:10m-10km, Output:RS485, Without weather phenomenon, Cable length:4m.

Revision time	Reviser	Current Version	Remarks
20250711	Echo	V5.0	