



Industrial Weather Sensor, High Accuracy Visibility Measurement

Overview

The **Visibility and Present Weather Sensor BS300-10** utilizes an advanced forward scatter measurement principle combined with a unique optical design to deliver highly accurate and reliable visibility data in all weather conditions. Its performance remains unaffected by nearby light sources, including flashes and artificial illumination.

With a standard measurement range from 10 meters to 10 kilometers — extendable up to 75 kilometers — the sensor is engineered using robust aluminum construction, making it ideal for demanding road and aviation applications.

To support continuous performance under extreme weather conditions, the **BS300-10** is equipped with integrated heating for both the optical windows and sensor hoods. Additionally, the optical windows are continuously monitored for contamination, and the visibility output is automatically compensated, significantly reducing maintenance requirements while maintaining measurement accuracy.




Features

- ✓ Applicable to Highway, Port, Ship and Environmental Visibility Detection
- ✓ Using Aluminum Alloy Material, Strong and Light-Weight
- ✓ 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

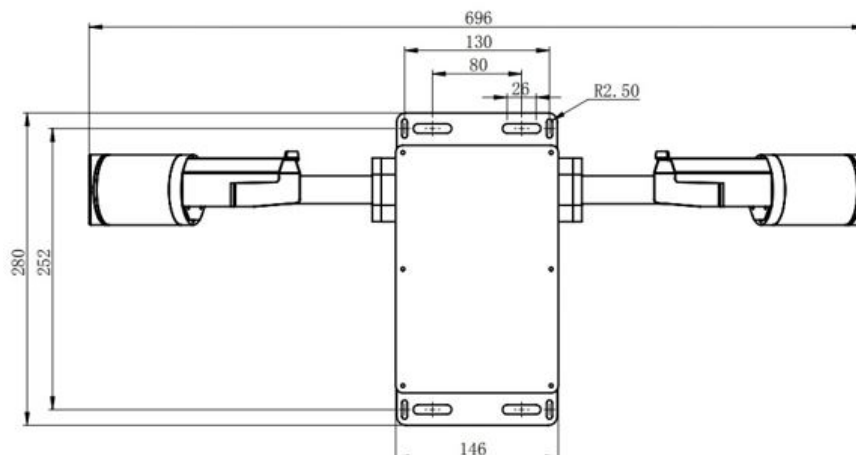
Technical Specifications

Item	Specifications		
	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 in 0-200mm/h range with 0.1mm resolution.		
Measurement Principle	Forward Scatter		
Resolution	1m		
Accuracy	±10%(10m ~ 10km)		
Data Update Rate	10s		
Output	RS-485, RS-232		
Operating Volts	12 ~ 24VDC		
Power Consumption	≤5W		
Installation	Hoop Installation		
Expected Lifespan	Approximate 10 Years		
Operating Temperature	-40°C ~ 50°C@0 ~ 100%RH (No Condensation)		

Dimensions

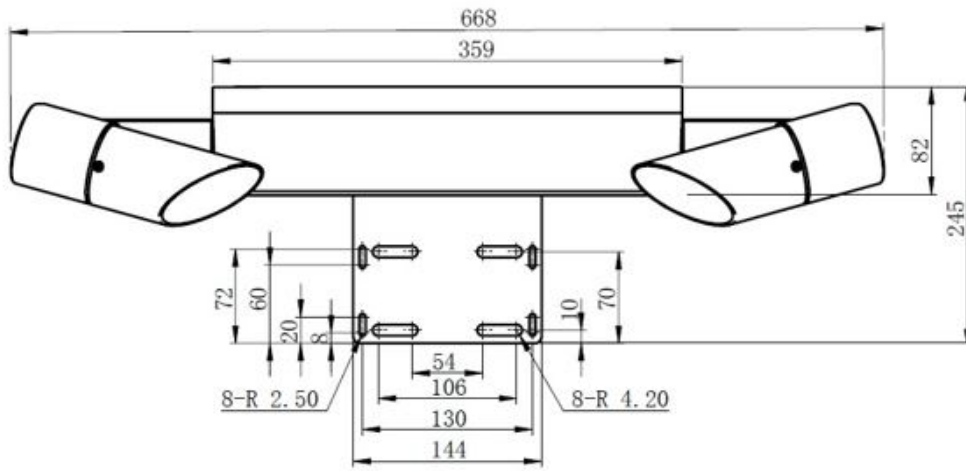
Unit:mm

• Type A

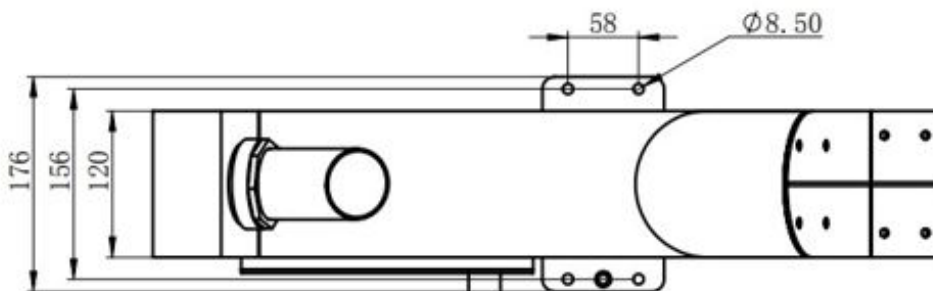
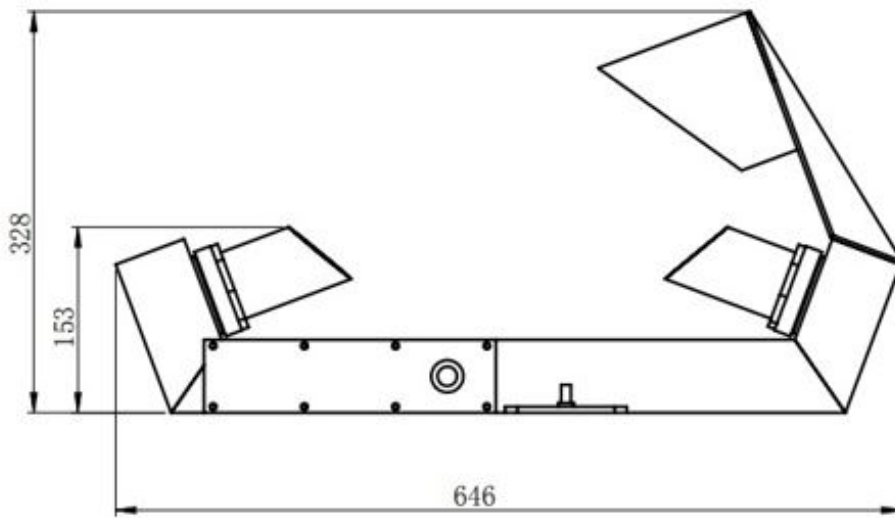
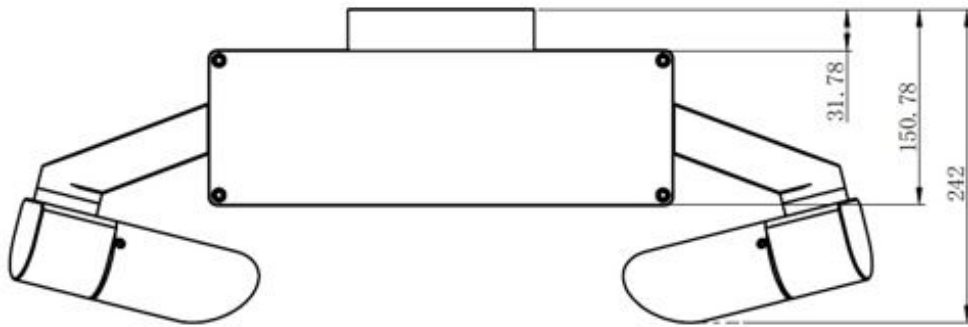


For comprehensive details, visit: www.buraq.com/BS300-01 

● Type B




● Type C



Parameter Selection Table

Remark	Series	Type	Range	Output	Weather Phenomenon	Cable Length	
BS							
	300-10						
		A					Type A
		B					Type B
		C					Type C
			A				10m ~ 10km (Typ.)
			B				10m ~ 30km
			C				10m ~ 75km
			X				Other
				A			RS-485
				B			RS-232
				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: BS300-10AAAX4000 Type A, Range: 10m-10km, Output: RS-485, Without Weather Phenomenon, Cable Length: 4m.

For comprehensive details, visit: www.buraq.com/BS300-10 



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