

Compact visibility meter

Model ES-V226VC



Introduction

ES-V226VC is a low cost visibility sensor working based on forward scattering principle. Main application is for traffic purposes. Stainless steel shell with spray-powder make it will never rust, applicable to drilling platforms, ships, highways and other transport sector.

Using forward-scattering technique it measures the amount of particles in the air that limit the visibility. It emits pulses of infrared light and measures the intensity of the forward-scattered light of the suspended particles in the atmosphere, using suitable algorithms to convert the measurements to meteorological visibility values.

Main features

- Small size, light weight, compact structure
- Automatically detect optical contamination, correct and compensate
- Issues maintenance alarm when exceeding warning value
- Direct continuous measurement
- No moving parts, low maintenance
- Simple installation and debugging

Application

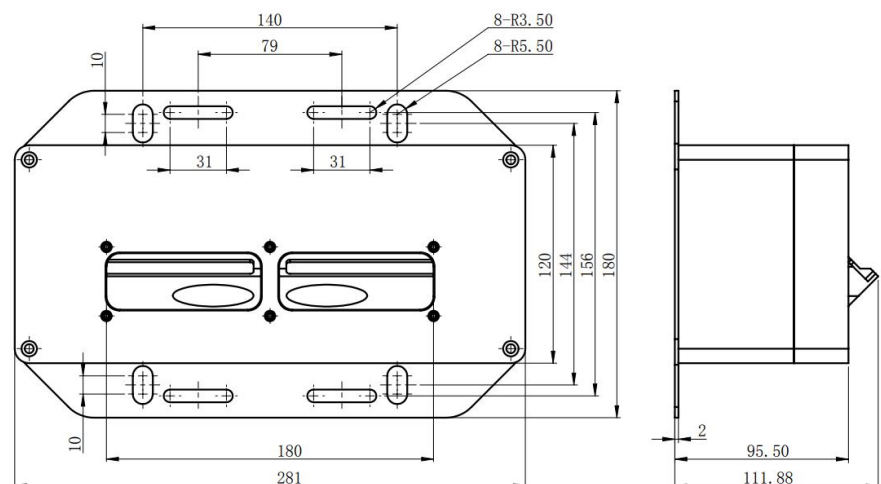
- Highways, ships
- Drilling platforms
- Waterways, ports
- Wind power generation
- Automatic weather stations

Working principle

Haze is composed of many tiny water droplets and various fine particles in the air. The infrared light emitted from the light source is scattered by the water droplets and then detected by a highly sensitive detector. Within a certain range, the more water droplets or other tiny particles are detected, the greater the intensity of the scattered light. The light scattering intensity is converted into a standard visibility value through embedded software calculation.

Dimension

Unit:mm



Specification

Types	EC-V226VC-A	EC-V226VC-B
Picture		
Shell material	Stainless steel + surface spraying	Die-cast aluminum + surface spraying
Size	280×150×150 mm	80×180×90 mm
Measuring range	10-2000 meters (expandable to 5000 meters)	10-6000 meters (expandable to 10000 meters)
Measurement accuracy	±5% (10-2000 meters); ±10% (above 2000)	
Light source	High brightness infrared LED	
Data refresh	10 seconds	
Serial output	RS485/RS232	
Baud rate	4800-19200	
Protocol	ModBus and ASCII	
Operating temperature	-40°C to +70°C	
Operating humidity	0 - 99% RH	
Protection rating	IP65 or customized	
Power supply	DC12-24V	
Power consumption	0.6W (heating 5W)	

Order guide

ES-V226VC	Visibility Sensor		
	CODE	Function type	
	A	Stainless steel + surface spraying	
	B	Die-cast aluminum + surface spraying	
		CODE	Signal output
		1	RS485
		2	RS232
ES-V226VC	B	1	Order example