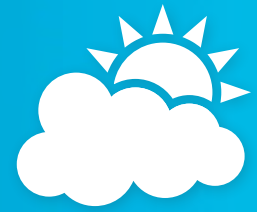


Road Visibility Sensor SWS 100



SPECIFICATIONS

Specifications subject to change without notice

Visibility & Precipitation Measurements	
Range	< 10 m - 2 km (1.2 miles)
Measures	Visibility (MOR - Meteorological Optical Range) reductions caused by : fog, haze, smoke, sand, drizzle, rain, snow and general precipitation
Measurement accuracy	<=10% maximum
Detection threshold	0.015 mm/hr rain, max. rate: >250 mm/hr
Outputs and reports	
Output rate (seconds)	10 to 300 (selectable)
Digital (serial) outputs	RS-232, RS-422, RS-485 <i>(not all RS-485 configurations available)</i>
Analog outputs	0-10 V (4-20 mA or 0-20 mA optional)
Switching relays (providing flexible configurations)	Relay 1 = fault Relay 2 = visibility (user selectable threshold) Relay 3 = precipitation yes/no or snow yes/no or 2nd visibility (user selectable)
Outputs	selected WMO 4680 table codes
Power Requirements	
Power supply	9-30 VDC (AC with optional mains adaptor)
Power consumption	6 W-normal running - window heaters OFF 2.5 W - window heaters OFF 57 W - using optional de-icing heaters at 51 W
Environmental	
Operating temperature	-40°C to +60°C
Operating humidity	0 - 100% RH
Physical	
Material	Powder coated aluminium (IP65 protected)
Weight	3.3 Kg
Dimensions	811mm (w) x 315mm (h) x 330mm (d)
Maintenance	
Self test functions	with maintenance warnings
User confidence check	6 months (suggested)
Window cleaning	3 months (suggested)
Options	
De-icing hood heaters	Optional (No-dew window heaters are standard.)
Extra self test mode	Transmitter window contamination monitoring
Certification & Compliance	
CE certified	RoHS and WEEE compliant
EMC compliance with EN61326-1997, 1998, 2001	
ORDERING	
SWS-100	SWS Sensor (delivered in sturdy recyclable foam filled packaging w 3m RS232 auxiliary cable, pole mounting kit (U bolt, saddle and bolts)\, documentation (manual, calibration certificate)
Accessories	Power & data cables. Mains power adaptor. Calibration kit (for user checks). Hard shell transit case. Post adaptor (for mounting to HA posts)

Overview

Monitors roadside weather to identify fog, haze, rain, drizzle and snow, integrate into ITS controls &/ or switch warnings automatically

Features

- ▶ Selectable measurement range
- ▶ Instantaneous and averaged visibility outputs
- ▶ Identifies precipitation type
- ▶ Reports WMO 4680 codes
- ▶ Date and time stamp on data strings
- ▶ 2 relays to switch equipment and 1 fault relay
- ▶ Easily installed on roadside posts or other structures

Applications

ROADS

Provides roadside weather info & switches road warning signs in snow, ice, spray & fog

TUNNELS

Switches ventilation controls & provides back up smoke detection to improve fire safety

WEATHER NETWORKS

Supplies visibility & present weather data to meteorological networks for forecasting

WIND ENERGY

Controls switching & intensity of navigational warning lights on tall turbines & offshore sites

CLIMATOLOGY

Historical, accurate, reliable & repeatable visibility & present weather data

FLOOD FORECASTING

Provides detailed precipitation data to predict/ map flood events & soil saturation

AVIATION /NAVIGATION WARNING AIDS

Automatic switching of warning lights/alarms to alert aircraft, etc. of dangers.