

VPF-710 Visibility Sensor

Premium quality sensor for the measurement of visibility in the most demanding applications. Reliable operation in all weather conditions.

... compact forward scatter design simplifies installation and system integration, whilst providing accurate measurements

- **Reliable measurement in all weather conditions**
- **Highly corrosion resistant hard coat anodised finish**
- **Window contamination monitoring and compensation**
- **Unaffected by obstacle warning lights**
- **Easy integration of Biral ALS-2 Ambient Light Sensor**
- **Mains or DC powered**
- **10m to 75Km measurement range**

The VPF-710 Visibility sensor provides high quality visibility measurement in a compact and robust package.

The open design of the sensor head allows the free passage of air ensuring the visibility measurement is as accurate as possible in all conditions. Other features of the design ensure the correct response to all precipitation types as well as smoke and dust.

The VPF-710 is highly resistant to disturbance from nearby light sources such as aviation obstacle warning lights, both constant and flashing. Even the latest generation of IR obstacle lights are not a problem.

The sensor is well suited to use in aviation applications due to the measurement accuracy,

overall reliability and longevity. An optional interface to the ALS-2 Ambient Light Sensor makes the VPF-710 particularly suited for use in Runway Visual Range (RVR) applications.

As standard the sensor is fitted with an extensive self-test monitoring capability which includes window contamination monitoring and output compensation. Summary self-test information is included in the standard data message with full status information available on demand.

The VPF-710 can be AC mains or low voltage DC powered and hood heaters are available for use in areas prone to snow.

VPF-710
Visibly Better

Biral have been manufacturing and supplying worldwide high specification Visibility and Present Weather Sensors since 1997.

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VPF-710 Specifications

Visibility Measurement

Measures	Visibility, (EXCO)
Output	Serial data
Range (visibility)	Standard: 10m to 75km Other ranges available at time of order 10m – 2Km, 10m 20Km, 10m – 32Km, 10m to 50Km.
Measurement Error	<=1.3% at 600m, <=1.8% at 1,500m, <=2.0% at 2km, <=8.3% at 15km <=10.5 at 30km
Measurement principle	Forward scatter meter with 39° to 51° angle

Outputs and Reports

Output rate (seconds)	Serial 10 to 300 (selectable)
Serial outputs	RS232 as standard RS422 / RS485 as an option

Power Requirements

Sensor power	12 VDC 24 VDC 120 VAC 240 VAC
Hood heating power	As sensor supply
Sensor	6 W
Hood heaters	30 W

Additional Features

Window heaters	Fitted as Standard
Window contamination monitoring	Fitted as standard on the transmitter window. Optional on the receiver window
Hood heaters	Optional

Environmental

Operating temperature	-50°C to +60°C
Operating humidity	0 – 100% RH
Protection rating	IP66

Certification & Compliance

CE certified
EMC compliance with EN61326-1997, 1998, 2001
RoHS and WEEE compliant

Physical

Material	Hard coat anodised, dip brazed aluminium
Weight (sensor head)	4.9 kg DC Sensors 6.1 kg AC Sensors
Length	751mm
Warranty	5 Years
Lifetime	>10 Years

Maintenance

Self-test capability	As standard
User confidence check	6 months recommended
Window cleaning	Automatic compensation and warnings
Field calibration	With optional calibration kit

Included With Sensor

The sensor is delivered in sturdy recyclable foam filled packaging with:
- Pole mounting kit (1 x U-bolt)
- 6m power and data cables
- User manual and calibration certificates

Accessories - Optional

Power and data cables – Alternative lengths
Calibration kit
Hard shell transport case
ALS-2 Ambient Light Sensor

Specifications subject to change E. & O.

