

Do you need to automatically activate fog horns or alarms in conditions of poor visibility . . .
 ... continuously, accurately and reliably for many years with minimal maintenance?



lighthouses

harbours

bridges

buoys

ships

. . .

Biral HSS VF-500 Visibility / Fog Sensor

HSS sensors have been used for over 20 years in marine applications throughout the world for switching fog horns and lights. With proven reliability and accuracy HSS sensors operate problem-free for many years and require minimal maintenance.

The HSS VF-500 Visibility Sensor continuously monitors the atmospheric extinction coefficient, and thus visibility, in all weather conditions. The sensor features a fog-alert capability which automatically switches external equipment such as an audible or visual alarm or warning light whenever fog, rain, smoke or dust lowers the visibility to a predetermined value. For example, the system can be set so that when the visibility drops below 1.5 nautical miles for more than 5 minutes (to avoid errors that would be encountered from a passing ship's exhaust) the circuit closes and allows an alarm to signal.

Of course, the settings for the visibility range and time delays for both the on and off conditions of the alarm are user selectable and once set require no further intervention, thus providing a reliable, accurate and automated cost-effective system.

The rugged construction and durable finish of the sensor is intended to serve you in severe environmental conditions.

A true test of quality and reliability is the fact that Biral HSS sensors were the first forward scatter visibility sensors on the market and have an established track record especially for use in the marine environment. They are the sensors of choice in many offshore and coastal applications and are used extensively on lighthouses around European and USA coastlines to switch fog horns.

A reliable and cost-effective solution the Biral HSS VF-500 Visibility / Fog Sensor

The HSS VF-500 sensor is designed for many years of trouble free service in the marine environment. A robust, waterproof housing covers the electronics with neoprene O-rings used to provide watertight seals. The sensor unit has an ingress protection rating of better than IP66 and all components that are exposed to weather are salt-dip brazed and made of hard anodized aluminium. This provides long life, extreme accuracy and repeatability together with unparalleled corrosion protection in harsh environments. The anodising is especially effective in a saltwater environment.

The sensor has several features designed to prevent measurement problems or malfunctions due to severe environmental conditions. These include the design and construction of the viewing windows, the selection of industrial and military grade electronic components that withstand environmental extremes and the optional de-icer hood heaters for operation in temperatures as low as -50 C.

The maintenance requirements for the HSS VF-500 are minimal with only periodic wiping of the windows necessary to remove any contaminants.

The HSS sensors are extremely reliable with a MTBF (Mean Time Between Failure) of at least 8 years and an infra-red light-source with a life expectancy exceeding 10 years. Indeed many sensors have been in trouble-free operation for over 20 years.

Siting and installation is simple and requires only basic electrical skills and a simple tool-kit. The low mass of the sensor allows for one man installation and removes the need for bulky mounting masts. Being a forward scatter sensor it is far easier to site and not prone to the interference that back-scatter sensors experience. The HSS VF-500 consists of a sensor head which makes the measurements and a control box which houses the electronics. The sensor head and control box can be installed up to 20 metres apart for safe and convenient access (sensor head to measure accurately and control box to be convenient to service personnel).

The sensor has very low power consumption and can be mains or battery operated. It is ideal for use with solar power and therefore suitable for operation at remote locations and on unmanned platforms.

All HSS sensors are assembled at our headquarters in England to rigorous ISO 9000 accredited quality standards and can be customised to suit your specific application if required.

If you would like more information please contact the Met Team at the address below by telephone, fax or email.



Biral - Bristol Industrial & Research Associates Ltd
P O Box 2, Portishead, Bristol BS20 7JB, UK

Tel: +44 (0)1275 847 787

Fax: +44 (0)1275 847 303

Email: met@biral.com

www.biral.com



Biral HSS VF-500
Visibility Sensor
and Power Control Unit