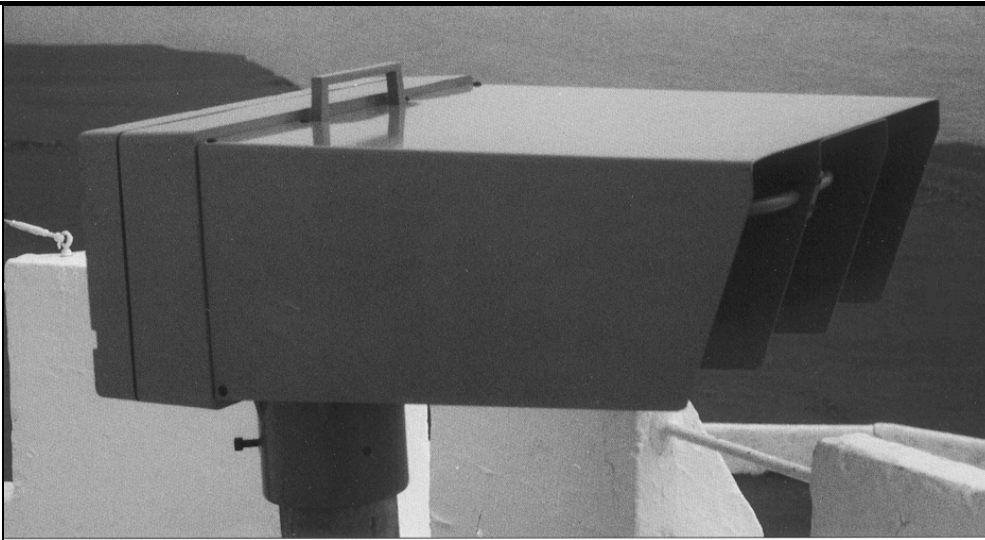


# MARINE FOG DETECTOR

## MODEL FD-310A



The FD-310A fog detector is a microprocessor device designed to automatically detect and execute the control functions for a fog signal, traffic signage or other devices, when visibility has decreased below a preprogrammed level.

The fog detector is of the pulsed infrared, backscatter, single-station type. Typically programmed to transmit a beam of modulated infrared light every 2 minutes, it measures the amount of light reflected by the atmosphere to the receiver in the instrument. Two consecutive, affirmative samples, for example, will instantly actuate a relay if fog density exceeds a preset value. This value is programmed correspond to a meteorological visibility between 0.5 and 5 nautical miles.

The area sampled is in the form of a narrow sector 2 to 12 meters in front of the instrument.

### FEATURES

- Microprocessor-based design ensures maximum reliability and minimum maintenance. **Light emitting diode (LED)** light source provides extremely long service life.
- Automatic self-checking. Electronic pilot light system automatically compensates for fouling/fogging of the lens.
- Remote on/off control terminals.
- Requires no warm-up period. **Heaters for windowpanes are not required.**
- Extremely **low power consumption**. Ideal for solar power applications.

- Ships, cars or other passing objects will not affect operation.
- Sealed casing (to IP-67) with Hammerite finish.
- Remote monitoring of fault and visibility levels.

### SPECIFICATIONS

- **Type:** FD-310A fog detector
- **Light Source:** Light Emitting Diode (LED)
- **Light Wavelength:** 0.94  $\mu$ m
- **Pulse Frequency:** 16 kHz
- **Pulse Energy:** Main Light Transmitter--50 mW  
Pilot Light Transmitter--1.8 mW
- **Light Emitting/Receiving Angle:** Transmitter--0.6 degrees. Receiver--6 degrees
- **Sampling Zone:** Between 2 and 12 meters
- **Sampling Time:** 12 seconds every 2 minutes (standard). Programmable options.
- **Supply Voltage:** 11 to 30 V DC. AC optional
- **Power Consumption:** 0.6 watts average
- **Current Drain:** 50mA, 12 volts DC
- **Remote Alarm Output:** RS-232, RS-485 or contact closure
- **Visibility Data Transmission:** RS-232 via Radio Modem or RS-485 over a maximum of 2000 m of wire
- **External Device Control Threshold:** Three thresholds programmable between 0.5 and 5 nautical miles visibility
- **Operating Temperature:** -40°C to +70°C
- **Materials:** Housing--cast aluminum alloy. Hood--sheet aluminum
- **Dimensions:** 312mm x 480mm x 633mm
- **Net Weight:** 12 kg
- **Shipping Weight:** 20 kg.
- **Shipping Volume:** 0.2m<sup>3</sup>.
- **Mounting:** 50mm pole mounting standard

*Specifications subject to change without notice*

Form No.: 042811A

