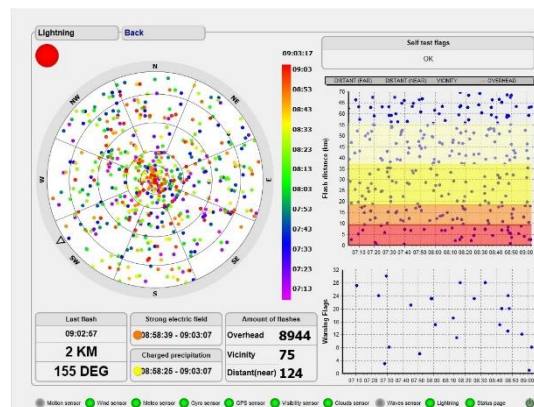




BTD-350



Observator Software module with BTD-350



OMC-140 Multifunctional TFT Display with BTD-350

Datasheet

BTD-350 Thunderstorm (Lightning) Detector

The BTD-350 Marine Thunderstorm Detector has been designed specifically for use in the marine environment. Its structure has been strengthened to withstand the rigors aboard large vessels with all ss surfaces some coated with a marine grade painting system.

The BTD-350 reliably detects the presence of all forms of lightning, out to a range of 83km. The unique quasi electrostatic operating principle gives the detector a very low false alarm rate and the unique ability to warn of the risk of overhead lightning, even before the lightning has started.

Virtually maintenance free, the BTD-350 can operate with the supplied PC display software, seamlessly integrate into sophisticated weather monitoring systems or directly activate local warning lights or sounders by optional warning relays.

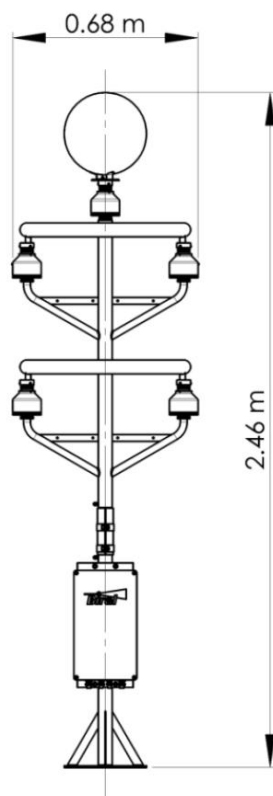
Features

- Detects charged precipitation - warns overhead lightning risk even before the first lightning discharge.
- Highly immune to EM interference which is the major cause of false alarms in traditional standalone detectors.
- Detects cloud-to-cloud and cloud-to-ground lightning.
- 83 km (45NM) detection range.
- Warns of overhead lightning risk.
- Meets Federal Aviation Administration (FAA) performance requirements for aerodrome use.
- Including direction finder.
- Very low maintenance requirements.
- Provides information for enhanced CAP437 reporting of thunderstorms.
- Developed for marine operation for salt spray, vibration and EMC.

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General

The electrostatic operating principle allows the sensor to warn of the risk of overhead lightning before the first discharge occurs. Virtually maintenance free in operation, the BTD-350 can either interface directly to an integrated system or be operated using the supplied PC compatible display and logging software. The optional warning relay module allows the sensor to automatically sound alarms whenever a storm approaches.



Data Summary

- **Detects** Cloud-to-cloud, cloud-to-ground and intra-cloud lightning discharges
- **Output** Ethernet or Serial data (RS422)
- **Range** 83 km (45 NM)
- **Detection efficiency** 95% for single lightning flash (any type)
 - 99% for storm with 2 flashes
 - 99.9% for storm with 3 flashes
 - For flashes within 56 km
- **False alarm rate** <2%
- **Range measurement** 0-83 km
- **Error** ± 3 NM between a range of 0-10 NM and ± 5.5 NM between 10-45 NM
- **Maximum flash rate** 120 per minute
- **Time of flash** Nearest 10ms (internal clock)
- **Measurement principle** Passive, quasi-electrostatic. No moving parts
- **Direction** Reported to nearest degree
- **Optional** software, display OMC-140 and relays
- **Sensor power** 110 to 240 VAC 50-60Hz Universal
- **Operating temperature** -40°C to 60°C
- **Operating humidity** 5% – 100% RH
- **Material** 304/316(L) stainless steel
- **Protection rating** IP66
- **Weight (sensor head)** 25kg



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Since 1924 Observator has evolved to be a trend-setting developer and supplier in a wide variety of industries. From instruments for meteorological and hydrological solutions, air and climate technology, to high precision mechanical production, window wipers and sunscreens for shipping and inland applications.

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Originating from the Netherlands, Observator has grown into an internationally oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

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