G26

Ambient Oil Mist Detector

ATEX and IECEx certified



Fire and explosion prevention in marine and offshore applications

Green Instruments

The G26 Ambient Oil Mist Detector ATEX/IECEx certified version is a simple and extremely reliable opacity monitor designed for use in hazardous areas. The system can prevent subsequent hazards such as fires and explosions, increasing safety of people, the environment, and assets efficiently and cost-effectively.



Fire and explosion prevention

Key features

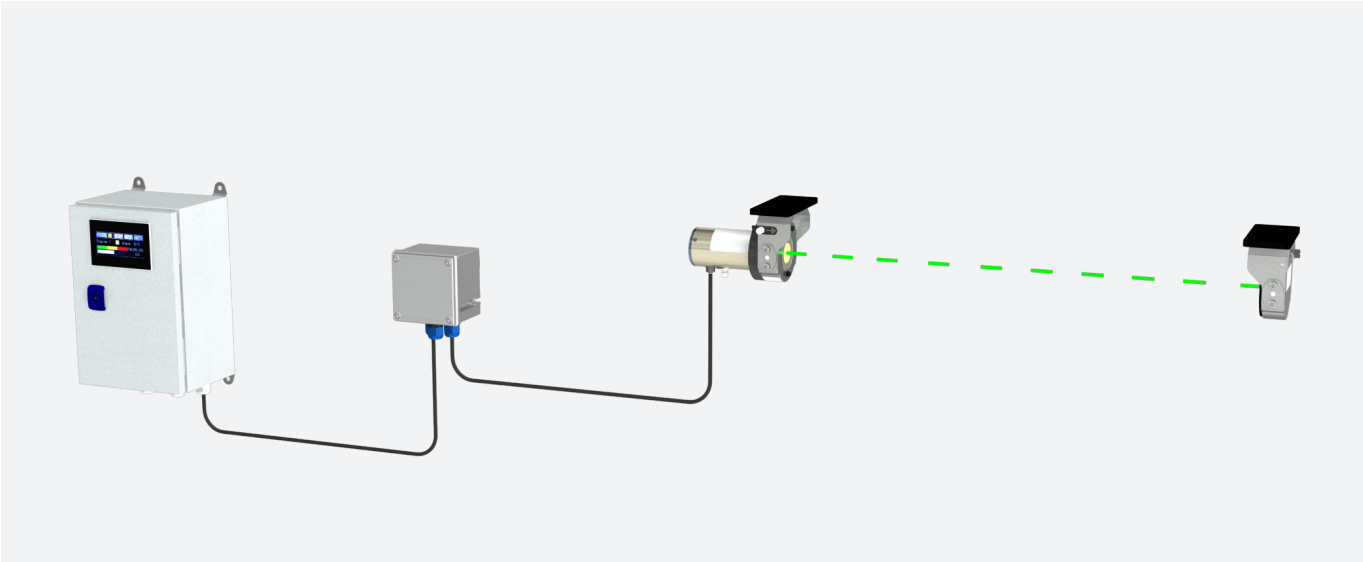
- Protects people, the environment, and assets
- Simple installation – minimal footprint
- Fast and reliable detection
- Large area coverage
- Configurable number of detectors per monitor
- Displays opacity (0-100%)
- Low cost of ownership – no consumable parts
- Designed for marine and offshore applications
- 36-month warranty
- Global service and support

Certificates

The G26 Ambient Oil Mist Detector is available as an ATEX/IECEx certified version. This version builds upon Green Instruments' acclaimed oil mist detection technology where more than 1000 units have been sold. The G26 Ambient Oil Mist Detector is a reliable opacity meter designed to detect all types of oil mist such as hydraulic oils, fuel oils etc. Oil mist is formed by oil droplets suspended in the air. Oil mists ignite at low temperatures and can cause severe damage such as engine room fires. The oil mist detector acts as a safety alarm, thus helping the crew avoid fires and explosions and thereby protecting lives, the environment, and assets.

Prevents catastrophes in hazardous areas

The G26 ATEX/IECEx certified version measures the full range of opacity (0-100%) and is designed for operating in hazardous areas preventing subsequent hazards such as fires and explosions caused by oil mist in oil rigs, platforms, FPSOs, or other similar marine installations. The robust design and solid green laser technology with double-pass measurement method provides an opacity monitor with simple installation and reliability. It is designed to respond to any minor or major oil mist formation – quickly and reliably. A fast response is crucial for preventing personal injury,



environmental catastrophes, and for protecting assets and avoiding loss of production. Furthermore, the G26 Ambient Oil Mist Detector is known for its high accuracy and precision as it detects the real undiluted oil mist clouds in the atmosphere.

Fully scalable installation

Each G26 Ambient Oil Mist Detector covers a larger area with a scanning range of up to 15 meters. The system can be configured with several detectors, which allows the system to monitor oil mist in different locations at the same time. In other words, the G26 Ambient Oil Mist Detector increases safety on board vessels.

Low-cost detector

The G26 Oil Mist Detector is simple and reliable because the line-of-sight measurement does not require any sampling devices. This feature minimizes system failures caused by any of the sampling devices including mechanical or contamination problems over time. With no moving parts, the detector is almost maintenance-free, requiring only occasional cleaning of the lenses and in-situ calibration. The system has an HMI module for visualization and operation. The graphic visualization on the user-friendly home screen shows an immediate overview of the atmospheric oil mist conditions in the locations under detection. This means the crew can take immediate action with minor oil leakages and avoid potential human and environmental catastrophes.

Service, support, and warranty

The G26 Ambient Oil Mist Detector is simple to install and leaves a small footprint. The detector's lens only requires occasional cleaning using a dry cloth, and calibration can easily be carried out by a member of the crew. Should assistance be needed, Green Instruments provides full service and support to ensure optimal operation throughout the entire product lifetime. The G26 ATEX/IECEx certified version comes with a 36-month warranty.



Specifications - G26 ATEX

CONTROL AND MONITORING UNIT (PLACED IN SAFE AREA)

Power supply

Standard	20 – 30 VDC – 2 A
Optional	100 – 240 VAC – 50/60 Hz – 1.4 A
Ambient temperature	0 – 45 °C (tested to 55 °C)

Communication

Analog output	2 x 4 – 20 mA max 500 Ω - active and linearized
Digital output	4 x alarm relays
Bus	Modbus TCP/IP
Alarm level	Alarm level is configurable Warning level is automatic set at 50 % of the alarm level
Alarm delay	Default 0 s / programmable (0 – 1800 s)

Ex interface cabinet

Protection method	Ex ib (connection to Ex zone)
Intrinsic power supply	Uo = 23.6 V, Io = 176.4 mA, Po = 1038 mW, Co = 0.97 uF, Lo = 4.5 mH
Intrinsic safe communication interface	Uo = 3.7 V, Io = 93 mA, Po = 85 mW

Material/enclosure

Enclosure	IP 65 steel box

Dimensions/weight

Dimensions	170 x 300 x 200 mm
Weight	5.6 kg

TRANSCEIVER AND REFLECTOR

Measuring range	0 – 100 % opacity
Accuracy	Better than 2 % of full scale
Scanning distance	1 – 15 m
Measuring principle	Transmission double pass
Ambient temperature	-25 – 55 °C (for Ex-application according to IEC 60079-0)
Humidity	Above dew point
Enclosure	IP 54

Dimensions/weight:

Transceiver	170 x 116 x 140 mm 2.7 kg
Reflector	63 x 116 x 140 mm 1.2 kg

ACCESSORIES AND OPTIONAL

Ex junction

Protection method	Ex e
Cable to transceiver	Delivered with 15 m preconfigured cable for easy transceiver connection
Material	Fiberglass Reinforced Polyester (FRP)
Enclosure	IP 66

Specifications subject to changes without notice

Impacting the world – one ship at a time!

Green Instruments is a global company with local presence in Denmark, USA, Singapore, and China
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