

G26

Ambient Oil Mist Detector

ATEX and IECEx certified

Fire and explosion prevention in marine and offshore applications



Industry

 **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

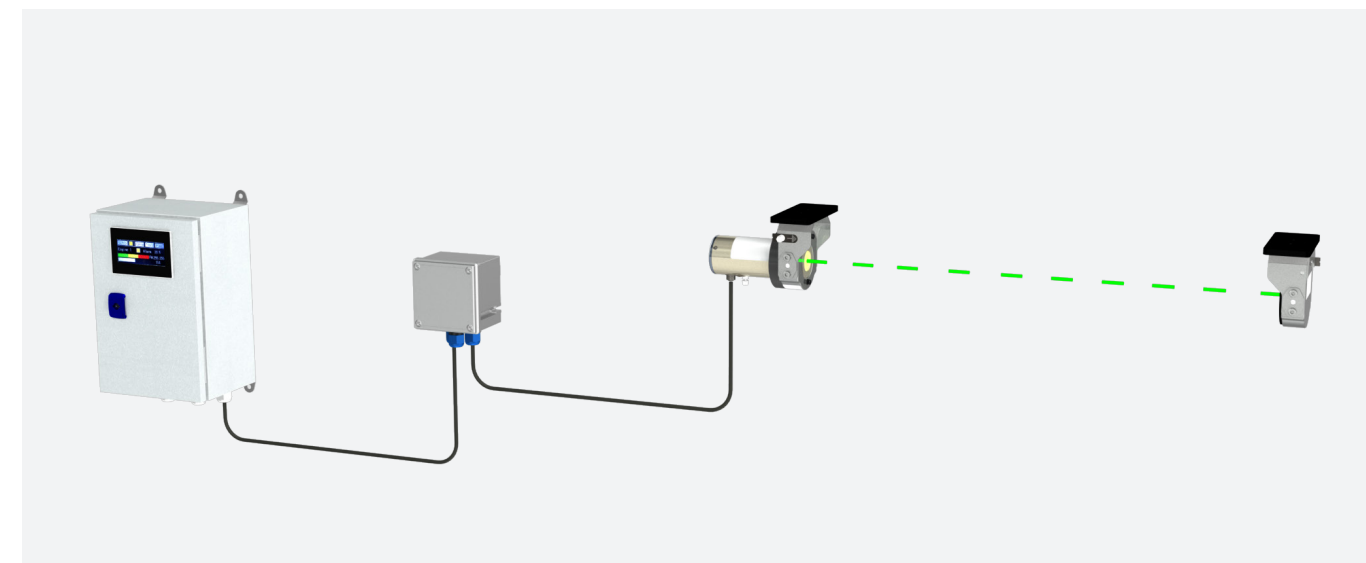
Certificates



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 to equipment and facilities. The oil mist detector acts as a safety alarm, thus helping the personnel 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 any other similar installation. 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.

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 personnel 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 the personnel. 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 | U _o = 23.6 V, I _o = 176.4 mA, Po = 1038 mW, Co = 0.97 μ F, Lo = 4.5 mH |
| Intrinsic safe communication interface | U _o = 3.7 V, I _o = 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 |

TRANSCIEVER 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) Transceiver: -25 – 55 °C Reflector: 0 – 55 °C |
| 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

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