

KEEPING SHIP'S ENGINES SAFE FOR

**35 YEARS**



# ENGINE OIL MIST DETECTION SYSTEM

## ENGINES OIL MIST DETECTION SYSTEM



The QMI Engine Oil Mist Detection System is used to identify increased levels of oil mist in engine crank spaces. The detectors are mounted on the crankcase and draw oil mist via a common suction rail using an independent fan.

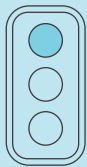
### The equipment uses light scatter (nephelometry) technology proven to:

- ✓ Deliver rapid response within 500 milliseconds of oil mist being detected
- ✓ Measure oil mist particles between 3 and 10 microns
- ✓ Quantify oil mist in mg/L
- ✓ Activate a relay when oil mist is detected

Engine Detectors are used with the QMI Multiplex 12 Channel Monitor. The number of Detectors required is dependent on the number of crank spaces within the crankcase.

The Multiplex Monitor incorporates a 'traffic light' system on each channel to ensure that operators know at first glance if there are hazardous concentrations of oil mist.

## KEY FEATURES



Traffic light system to easily identify an issue



Tamper proof once alarm levels set



Self-diagnostic system detects faults or dirty Detector



Older models are fully upgradable

The Monitor indicates oil mist levels as a percentage of the set alarm limit. The Monitor can be set to read **100% at 1.3 mg/L and 2.00 mg/L**.

When a QMI Multiplex Engine Oil Mist Detection System replaces another system, it should be ensured that the crankcase penetrations are on the down throw side of the engine and as high as possible to ensure correct system operation.

Monitoring any change in oil mist levels in the running engine's crankcase can help to quickly identify an issue that needs to be investigated

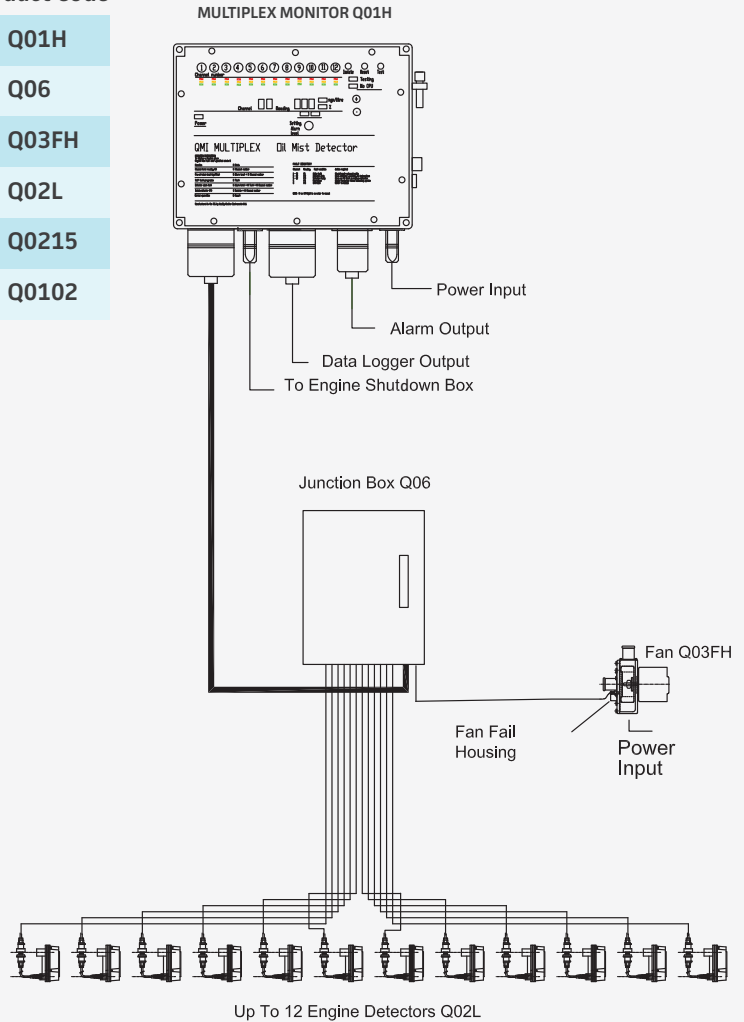
A QMI Engine Oil Mist Detection System typically contains the following:

Description	Product Code
1 x Multiplex Monitor with Harting Connectors	Q01H
1 x Junction Box	Q06
1 x VMB3 Fan - 110 VAC or 220/240 VAC	Q03FH
Engine Detector with lead*	Q02L
1 x Engine Detector Maintenance Kit	Q0215
Installation Manual	Q0102

**Added extras include:**

- Data Logger output
- Modbus output
- Individual or grouped shutdowns

\* The number required depends on the number of crank spaces that are required to be monitored.



**WHY CHOOSE A QMI ENGINE OIL MIST DETECTION SYSTEM?**

- ✓ 35 years experience of keeping ship's engines safe
- ✓ Manufactured in the United Kingdom to ISO 9001:2015 standards
- ✓ An activated alarm indicates there is problem that needs investigation
- ✓ Systems are upgradeable to latest specification
- ✓ Engine slow/shutdown facility
- ✓ Type approved by Lloyds Register and the American Bureau of Shipping





Product Code: **Q01H**

## THE QMI MULTIPLEX MONITOR OVERVIEW

- ✓ For use with between 1 – 12 Detectors
- ✓ Clear traffic light display of oil mist level on each channel
- ✓ Self test program for Monitor, Detector and wiring
- ✓ Tamper proof key protection
- ✓ Cast aluminum hinged enclosure sealed to IP65
- ✓ Operated with magnetic Hall effect switches
- ✓ Operating instructions & fault directory on faceplate
- ✓ Hinged access panel
- ✓ Harting Connectors

## TECHNICAL SPECIFICATIONS

<b>Power Supply</b>	Nominal 110V - 240VAC 50/60Hz
<b>Power Consumption</b>	100W
<b>Sampling Channels</b>	12
<b>Response Time</b>	500 milliseconds
<b>Measuring System</b>	Time Multiplex Analogue Signal

<b>System Outputs</b>	Main Alarm
	Early Warning Alarm
	Engine Slow Down
	Fault Alarm
<b>Dimensions</b>	403mm x 312mm x 128mm
<b>Unit Weight</b>	10kg



Product Code: **Q02L**

## ENGINE DETECTOR OVERVIEW

- ✓ Comprises three aluminium castings, backplate, centre and cover
- ✓ Sealed to IP65
- ✓ 50cm lead to Bulgin 6 pin in line connector
- ✓ Factory calibrated

## TECHNICAL SPECIFICATIONS

<b>Dimensions</b>	166mm x 160mm x 104mm
<b>Unit Weight</b>	2.5kg



## USEFUL INFORMATION

The Detectors should be mounted so that the backplate is vertical and on the down throw side of the engine when the engine is running ahead.

The Detector backplate should remain on the engine pipework whilst the Detectors are being cleaned.

A throttle valve should be fitted in the pipework to the fan, with a drain. This will prevent excess oil mist being drawn into the Detector and increase the time between cleaning/maintenance.



Product Code: **Q06**

## JUNCTION BOX

- ✓ For up to 12 Engine Detectors
- ✓ Metal enclosure with hinged access
- ✓ Contains PCB for connection of Detectors
- ✓ Contains connection for fan fail device
- ✓ Cable glands for Detector cable access

## TECHNICAL SPECIFICATIONS

<b>Dimensions</b>	300mm x 400mm x 160mm
<b>Unit Weight</b>	6kg

## QMI FAN VBM3

- ✓ Built in fan fail housing and magnetic sensor
- ✓ Either 110 VAC or 220/240 VAC 50Hz
- ✓ 1" BSP suction pipe, ¾" BSP discharge pipe
- ✓ Bulgin in line connectors for power & fan failure

## TECHNICAL SPECIFICATIONS

<b>Dimensions</b>	264mm x 215.2mm x 256mm
<b>Unit Weight</b>	1.8kg



Product Code: **Q03FH**



Product Code: **Q08**

## DATA LOGGER

- ✓ Output for up to 12 Engine Detectors
- ✓ 4 – 20 mA Data Logger output
- ✓ 16-way connector at position 5 on Monitor

## TECHNICAL SPECIFICATIONS

<b>Dimensions</b>	130mm x 70mm x 10mm
<b>Unit Weight</b>	0.08kg