

TANDELTA

Oil Quality Display

Displays 20/20 vision of your oil condition

The Tan Delta Oil Quality Display is the perfect partner for the Tan Delta Oil Quality Sensor. Engineered to deliver outstanding performance, the robust IP67 rated enclosure delivers a straight forward and effective way to display the real time condition of your oil. Ideal for the majority of commercial and industrial environments.



Key Features

Flexible Installation

Can be used stand alone or simply connected to a wide variety of control and display systems.

Ease of Use

With the intuitive traffic light display the real time monitoring of your oil condition has never been easier.

Fully Certified

The Tan Delta Oil Quality Display is fully certified to International standards to work in the majority of commercial and industrial applications.

Robust and Rugged

The rugged polycarbonate IP67 rated enclosure with membrane keypad and high quality industrial connectors make this unit very reliable.

Data Logging

Saves up to 16,384 readings at intervals down to 1 minute, allowing you to easily record and trend your oil condition.

Key Benefits



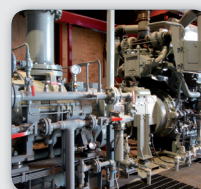
Accuracy

Over 60 times more sensitive than other sensor technology giving instant access to more accurate data relating to the condition of your oil.



Early Warning

Instant alerts from the easy to read display unit help to ensure reliability of critical plant equipment.



Continuous 'Always On' Monitoring

Enjoy the peace of mind knowing that all of your critical equipment is being monitored 24 hours a day, 7 days a week, 365 days a year.



Minimise Wastage

Dramatically reduce service costs by only making oil changes when they are actually required and not based on historical schedules.

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Oil Quality Display

Product Features

Physical

Material: Polycarbonate
Dimensions: 120mm x 66mm x 42mm (L x W x H)
Weight: 300g
Colour: Grey
Keypad: Polyester
Mounting: Integrated Flanges

Power

9-30 V DC
Average power consumption 0.4W
Power consumption up to 200mA

Analog Output

4-20mA

Digital Output

RS232: 9600 baud bi-directional
RS485: 9600 baud half duplex
Modbus protocol supported on RS232/RS485
CANbus: CANopen protocol

Environmental

Protection: IP67 when connected
Operating Temperature: 0°C to + 50°C

Display

20 Segment Tri-Colour LED
13 Green LEDs / 4 Amber LEDs / 3 Green LEDs
Power LED
Oil/Temp Selection Button
Calibration Button
Oil/Temp Selection LEDs

Measuring Range

Temperature Range: -30°C to +130°C
Oil Quality Index: -2 to +21

Compatibility

Tan Delta Oil Quality Sensor
Tan Delta Oil Quality Software
All Tan Delta Accessories

Data Logging (optional)

Storage Capacity: 16,384 records
Logging Interval: 1 minute to 45 days
Battery Backup: > 10 years
Serial Interface: RS485
Real Time Clock



Tan Delta Accessories

Standard Cables

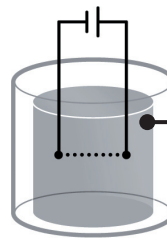
Sensor	→ Bare Ends (5 metres)	OQCW-01-A-05-0
Sensor	→ Display Unit (5 metres)	OQCW-01-A-05-B
Display Unit	→ Bare Ends (5 metres)	OQCW-01-A-05-0

Programming Accessories

USB Cable	OQA-PC-3
Display and Calibration Software	OQA-PC-2

How it Works

Traditionally, dielectric sensors are used to measure the capacitance of the oil, which changes as the oil becomes damaged...



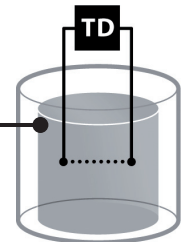
Dielectric Sensor

An a.c. electric voltage is applied across two electrodes, the change in current flowing indicates whether or not the oil is seriously degraded

Tan Delta Oil Quality Sensor (OQS)

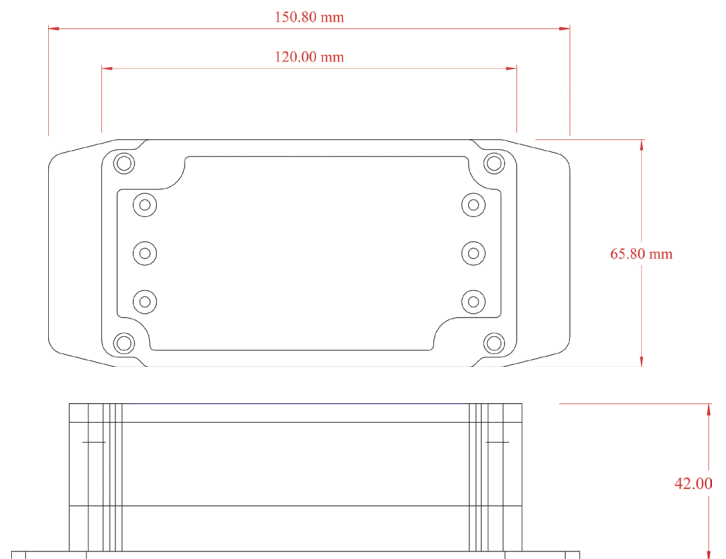
This device works in a similar way to the dielectric sensor but measures both the capacitance and the conductance (a combined measure known as permittivity) of the oil.

The combined data provides a reading that is, on average, up to 60 times more sensitive to the change in quality of the oil



As a result of the increased sensitivity, the Tan Delta OQS can detect the very early stages of deterioration or damage to oil, allowing timely planning of any intervention that may be needed.

Mechanical Drawing



Ordering information

Standard Display Unit = OQD-A-1-0
Standard Display Unit (with data logging) = OQD-A-1-1

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