The Renold SmartGearbox OCMS
Oil Quality Sensor - OQS Express

The Renold Gears Oil Quality Sensor has been designed and developed to the highest standards. The Oil Quality Sensor (OQSx) is your ideal solution for accurate real time oil condition monitoring. Easily and quickly installed the OQSx detects all wear and contamination elements to an exceptionally high sensitivity level and provides an accurate statement of oil condition second by second - in any oil type and in any application, giving you a true 360 degree view of how your oil is performing.

Key Features

**Accurate**
The OQSx accurately reports the precise condition of any oil in real time and is certified to better than 15ppm sensitivity.

**Advanced Technology**
Patented core technology delivers exceptional sensitivity to oil condition changes caused by both wear and contamination.

**Proven Performance**
Independently certified for accuracy, sensitivity and reliability. Accurate data you can trust.

**Robust and Reliable**
Engineered for installation and long term maintenance free operation in the harshest industrial and commercial applications.

**Easy to Install**
The OQSx is small and easy to install on any equipment and application.

**Configurable**
OQSx is configurable for any synthetic and or mineral oil type operating in any application.

Key Benefits

**Optimise Service Intervals**
Optimise service intervals without risking equipment performance and reliability.

**Lower Operating Costs**
Less downtime and less maintenance significantly reduces ongoing operating costs.

**Improved Safety**
Ensures your equipment is in optimal condition making a safer working environment.

**Help the Environment**
Increase equipment efficiency. Reduce oil consumption, maintenance activity and costs and conserve the environment.
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Dimensions

System Architecture

In the box

Order Information

Product Name: Oil Quality Sensor (OQSx)
Product Code: OQSx-1-AA-02-1

Physical

Material: Stainless Steel AISI304
Dimensions: 90 mm x 37 mm (L x W)
Weight: 160g
Thread: 1/2" BSPP thread / M32 hex thread
Seal: DIN 3869 Viton Seal
(Alternative seals and threads available upon request)

Connections

6 Pin Lumberg Male (IEC 61076-2-106)
(Alternative connections are available upon request)

Electrical

Power Supply: 9–30 V DC
Power Consumption: Average 0.4w continuous 30mA

Data Output/Input

Analogue Output: 2 x 4–20mA (current syncing, passive input)
Digital Output: 1 x RS485; 9600 baud half duplex, Modbus protocol supported on RS485, CANbus: CANopen protocol supported on RS485

Oil Quality Detection Parameters

Frequency: 15 per second
Sensitivity: Certified better than 15 ppm sensitivity
Accuracy: +/-1%
Elements: All wear and contamination elements

Oil Type

Configuration: Any synthetic or mineral oil – including fuel oils such as diesel and bio-diesel

Environmental

Sensor Temperature: -20ºC (+4ºF) to +120ºC (+248ºF)
Fluid Temperature: -20ºC (+4ºF) to +120ºC (+248ºF)
External Pressure: 0 bar (0 psi) to 20 bar (290 psi)
Fluid Pressure: up to 20 bar (290 psi)

Water & Dust:
IP67 when connected

Shock & Vibration:
BS EN 6066-6-2-30 (Test Dc – Cycle Humidity)
BS EN 6066-6-2-6 (Test Fc – Sine Vibration)
BS EN 6066-6-2-27 (Test Ea – Mechanical Shock)

EMC:
EN 61000-6-4:2007 (Generic Emissions Standard for Industrial Environments)
EN 61000-6-2:2005 (Generic Immunity Standard for Industrial Environments)

Standards and Certification

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You may require additional cables to complete your installation. Please refer to the Renold Systems Architecture diagram below.

* Standard sensor thread is BSPP thread. Other threads available upon request.

Ordering information

Standard Sensor = OQS-1-AA-02-1

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