



Extend oil use



Reduce maintenance



Reduce breakdowns



Detect contamination

PRODUCT DESCRIPTION

OQSx-G2 HAZ is a high-performance real-time oil condition analysis sensor for use in most explosion hazardous areas.

It delivers the ultimate high-quality real-time oil condition analysis. This enables multiple tangible operating benefits that include reduced maintenance costs, improved reliability, reduced oil wastage, and extended equipment life.

Our unique FSH™ core technology analyses oil condition holistically, detecting, measuring, and tracking all and any contamination or wear with 0.01% sensitivity (100ppm) – other sensor systems typically look at specific parameters and ignore others. This unmatched real-time complete oil analysis capability is achieved through continuous analysis of the electro-chemical properties of the oil at a molecular level.

OQSx-G2 HAZ works with any oil type with any equipment operating in any application. It is certified ATEX Zone 2/intrinsically safe/ Class I Div 2.

KEY FEATURES

- Real-time oil analysis**
 Continuous real-time oil condition with 0.01% sensitivity, detecting and reporting changes caused by wear and/or contamination.
- Reliable accuracy**
 Our unique molecular level analysis technology means that the smallest changes down to 100ppm are detected and reported in real-time. This enables us to reliably track oil wear and immediately detect contamination or equipment issues at the earliest stage.
- Any oil type and equipment**
 Can be fitted and used on any equipment type operating in any environment using any oil type – mineral or synthetic.

BENEFITS

- Reduce maintenance costs**
 Analysis-based rate of change and EoL enables accurate trend analysis to identify optimal extended maintenance intervals based on real equipment status. Typically reduces maintenance by up to 50%.
- Reduced downtime**
 Unseen equipment issues cause subtle changes to oil condition, which are detected and alerted, enabling pre-emptive maintenance before failure or major damage or accelerated wear.
- Environmental (ESG) targets**
 Safely maximise oil life to reduce consumption by up to 50%. Reduce parts consumption and extend equipment life.



Fully certified to ATEX, IECEx, UKEX, and US/C standards.

TECHNICAL DATA

Product information

Name	Ex Gen II Oil Quality Sensor
Product No.	OQSx-G2 HAZ

Physical

Material	Stainless Steel AISI304
Dimensions	118mm x 46mm (L x W)
Weight	160g
Connection	32mm AF Hex Collar
Torque	25N m

Available threads *(Alternative threads available upon request.)*

Thread	Seal
1/2" BSPP	Dowty Type
1/2" NPT	n/a
7/8" UNF	'O' Ring
M18	Dowty Type

Connections

Glanded integral cable	10m as standard (350 max possible)
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Electrical

Supply	+10-28.8V DC
Consumption	0.4w Average

Data output/input

Digital output	RS485, CANBus
Protocols supported	CANopen, Modbus, J1939
Analog output	4-20mA

Oil type

Configuration	Any mineral, semi-synthetic or synthetic oil, including fuels (diesel and bio-diesel)
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Oil quality detection parameters

Output	Tan Delta Number (TDN) Oil Temperature (C or F)
Sensitivity	0.01%
Elements	All wear and contamination

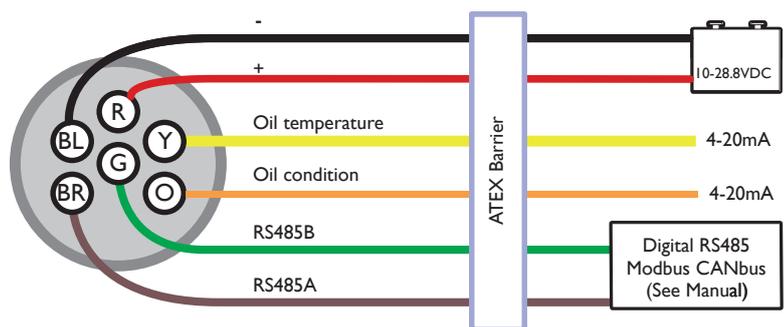
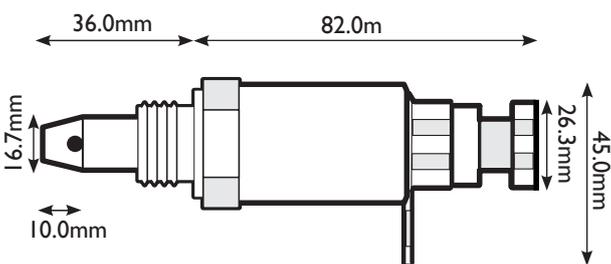
Environmental

Calibrated temperature	-20°C (-4°F) to +120°C (+248°F)
Operating temperature	-20°C (-4°F) to +120°C (+248°F)
Fluid temperature	-20°C (-4°F) to +120°C (+248°F)
Fluid pressure	Up to 70 bar (1015 psi)
Storage temperature	-55°C (-67°F) to +150°C (+302°F)

Standards and certification

Water and dust	IP68
Shock and vibration	BS EN 60068-2-30 (Test Db - Cyc.Hum.) BS EN 60068-2-6 (Test Fc - Sine Vib.) BS EN 60068-2-27 (Test Ea - Mech. Shock)
EMC	EN 61000-6-4:2007 (Generic Emissions Standard for Industrial Environments) EN 61000-6-2:2005 (Generic Immunity Standard for Industrial Environments)
Ex compliance standards	BS EN IEC 60079-0:2018 BS EN 60079-11:2012
Ex certification options	<p><i>Intrinsically safe order codes</i></p>  <p><i>Non-intrinsically safe order codes</i></p> 
Conformity	CE Marked RoHS Compliant

DIMENSIONS, INSTALL AND CONNECT



WHY TAN DELTA

Tan Delta advanced oil condition analysis technologies and products enable enhanced and highly accurate real-time monitoring and management of oil and rotating equipment. Superior accuracy combines with fully holistic analysis to deliver the ultimate equipment monitoring capability and insight. Used and trusted around the world by equipment operators to reduce costs and improve efficiency. Tan Delta provide ready-to-go equipment to end users, as well as embedded and customised product solutions to original equipment manufacturers.



Tan Delta provide OEM equipment manufacturers with fully customised integrated and cost-optimised solutions. Please contact us directly to discuss your oil condition requirements.