



Product Description

The FluidInspectIR® Inline ATEX is a multi-sensor system for real-time monitoring of oil condition.

It comprises:

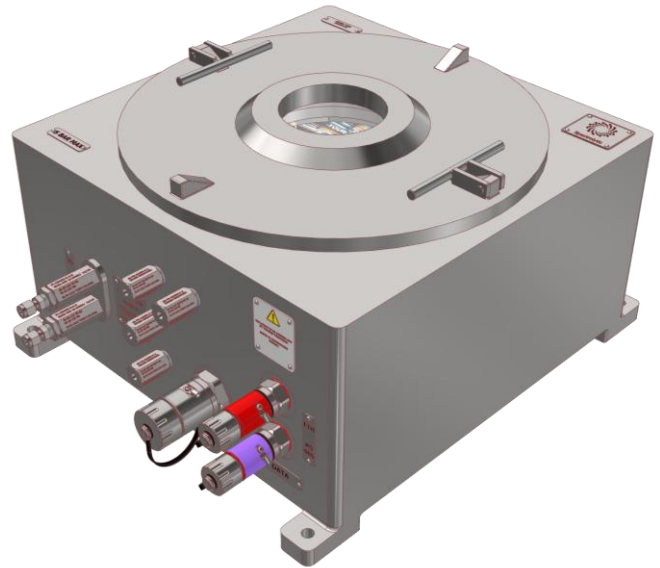
- Oil condition sensor
- Viscosity sensor
- Optical particle counter with integrated pump.

It provides the user with key oil degradation parameters in the same format, units and accuracy as per standard oil analysis laboratory reports.

The FluidInspectIR® Inline ATEX is certified to the following standards:

- II 2 GD
- Ex db IIC T6 Gb
- Ex tb IIIC T85°C Db IP6

Available in either stainless steel 316L enclosure or aluminium enclosure.



Summary Information

- Measurement of key parameters in oils and lubricants in power generation, compressors, offshore and metal working (Steel and Aluminium)
- Correlates to ASTM / DIN
- All data in conventional laboratory Units and same accuracy as in an oil laboratory
- Cloud Dashboard Capability
- Minimum service requirements
- Operating temperature: max 60C, Oil temperature: max 100C

ATEX Applications

- Offshore Production and exploration Platforms
- FPSO and mobile operation platforms
- Onshore production operations and refineries
- Mining - All explosive zoned areas monitoring oils and fluids
- Production fluids - All explosive zoned areas monitoring oils and fluids

Configuration

- Ethernet - MODBUS (TCP) and MQTT
- Data /Power: HAWKE 8 Pin (x2), HAWKE 9 Pin, M32x1.5 Thread, stainless steel

Key Benefits

- Optimise maintenance operations and save 100k\$ / years
- Minimise unplanned downtime
- Extend oil drain intervals
- Reduction in H&S Hazards
- Data driven maintenance
- Reduction of CO2 footprint

Installation requirement

- Voltage : 24V
- Max power : 60W
- Max current draw : 3A
- Max pressure: 5 bar
- Requires pressure differential of 2-5 bar
- Typical flow rate: 20ml/min
- Viscosity: max 150 cST @ ATEX box inlet
- Earthing required using provided earthing points
- Sample connectors: 6mm pipe (outer dimension)
- 447.5mm L x 517.5mm W x 280mm H
- Weight: About 160kg stainless steel, 80kg Aluminium



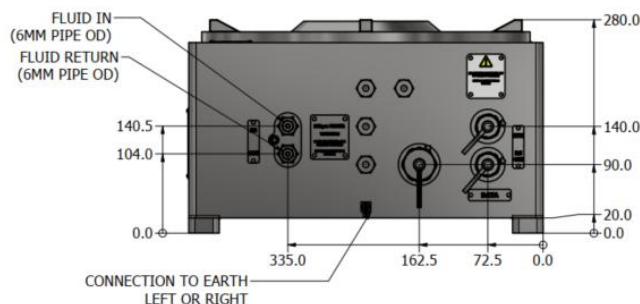
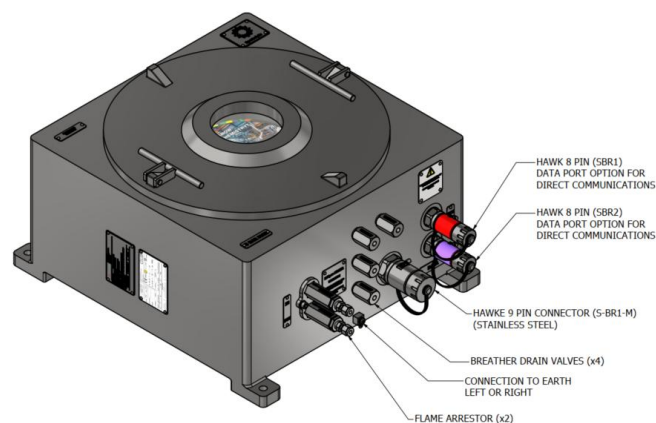
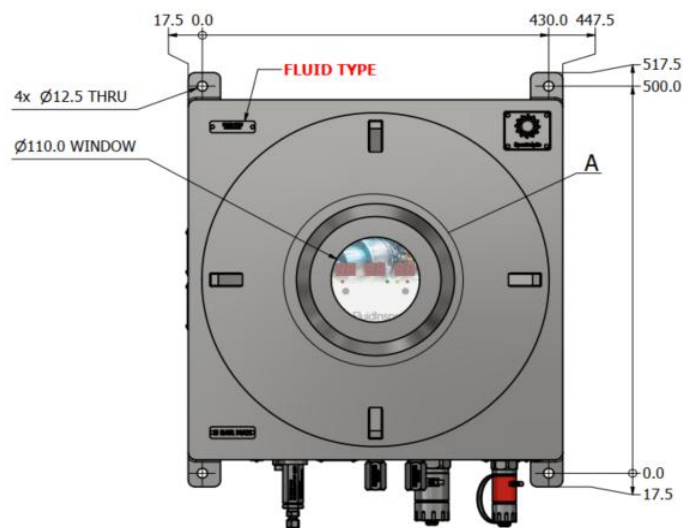


Typical Oil Condition Sensor Parameters

- Measurable Parameters: Note that not all of these parameters can be measured all at once with same device.
- Repeatability: $\pm 5\%$ of measured value
- Accuracy: $\pm 5\%$ of measured value
- Methodology Default: DIN 51453/51451
– can be calibrated to ASTM/DIN
- Configurations available in common metal working applications for specialised additive packages
 - Aluminium Rolling additives
 - Water based cooling and cleaning solution parameters such as Brix%, % concentrate and additives.

Base Oil Changes	Additives	Contaminants
Oxidation (abs/cm)	Anti-oxidants % (phenol/amine/ZDDP)	Soot (wt%)
Nitration (abs/cm)	Anti-wear % (ZDDP)	Water (ppm)
Sulphation (abs/cm)	Others upon Request	Ethylene Glycol(ppm)
TAN (mgKOH/g)		
TBN(mgKOH/g)		
ipH(mgKOH/g)		
Kinematic Viscosity 40/100°C (cSt)		

Technical Drawings & Descriptions





24V Power connector – Hawke SCP-X-ESA-XXX-A



9 x 1.5 - 2.5mm²

Front View
Socket Insert



9 x 1.5 - 2.5mm²

Back View
Socket Insert

Pin	Description
1	24V
2	24V
3	GND
4	GND
5-9	Not Used

- Recommended cable : 4 core with 1.5mm² to 2.5mm² core
- Connector pins crimped or soldered according to manual

Ethernet Data Connector – Hawke SCP-X-CSS-XXS-A EX S-S

Front View
Socket Insert



8 x 0.14 - 0.37mm²

Back View
Socket Insert



8 x 0.14 - 0.37mm²

Pin	Description
1	Orange/White
2	Orange
3	Green/White
4	Blue
5	Blue/White
6	Green
7	Brown/White
8	Brown

- Recommended cable : shielded twisted ethernet cable with 0.14mm² to 0.37mm² core
- Connector pins crimped or soldered according to manual
- Max length : 100m

