



# FluidInspectIR®

## INLINE ATEX

## Product Description

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

It comprises:

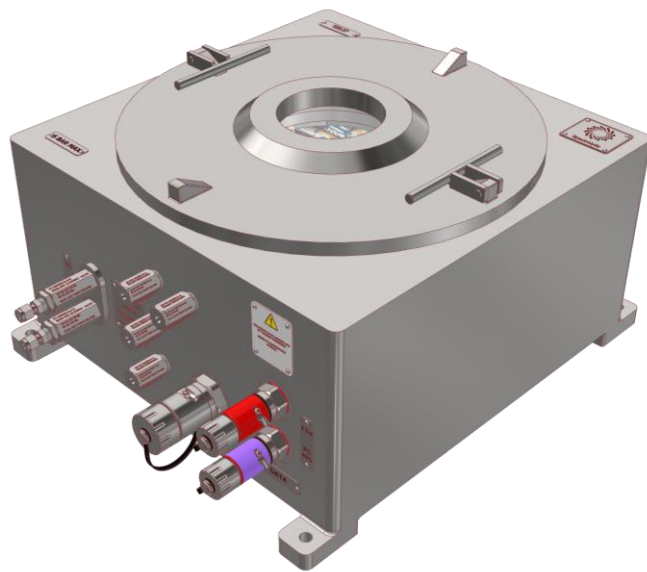
- Oil condition sensor
- Viscosity sensor
- Optical particle counter with integrated pump.

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

## 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/,RS485
- MODBUS (RTU,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
- Extent oil drain intervals
- Reduction in H&S Hazards
- Data driven maintenance
- Reduction of CO2 footprint

## Installation requirement

- Power : 24V
- Max pressure: 5 bar
- Typical flow rate: 20ml/min
- Viscosity: max 150 cST @ ATEX box inlet
- Sample connectors: 6mm pipe (outer dimension)
- 447.5mm L x 517.5mm W x 280mm H
- Weight: About 160kg stainless steel, 80kg Aluminium



**Spectrolytic**  
Innovative Solutions in Spectroscopy

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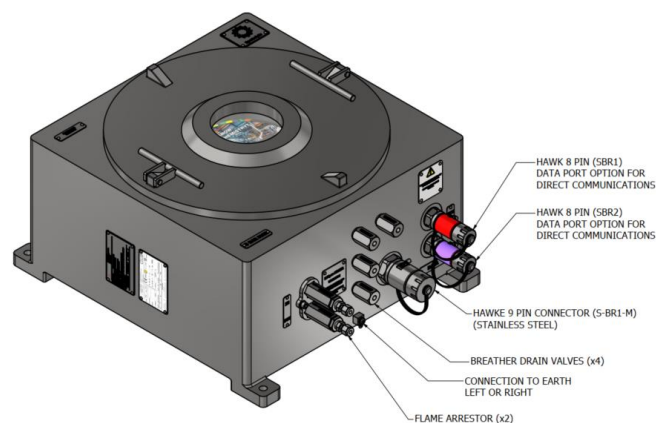
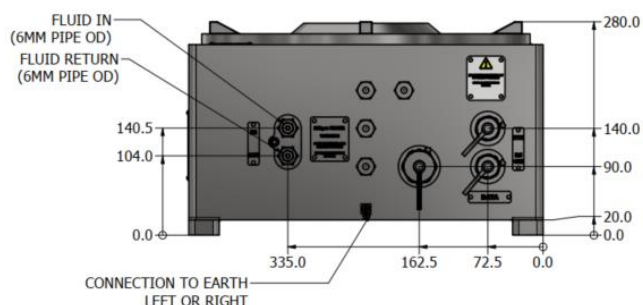
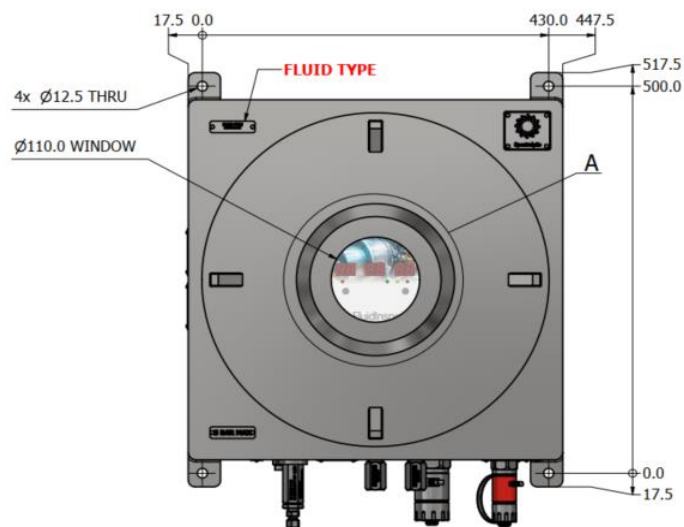
## INLINE ATEX

### Oil Condition Sensor Parameters

- Measurable Parameters: Note that not all of these parameters can be measured all at once with same device.
- Repeatability: <+-5% of measured value
- Accuracy: <+-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 and accurate water in oil measurements

Measurable Parameters	Correlates to Standard	Unit
<b>Group I-IV Oils including PAO (PolyAlphaOlefins)</b>		
<b>Base Oil Changes</b>		
Oxidation	ASTM E2412, DIN 51453	A/cm or A/0.1mm
Nitration	ASTM E2412, DIN 51453	A/cm or A/0.1mm
Sulphation	ASTM E2412, D7415	A/cm or A/0.1mm
<b>Properties</b>		
TBN	ASTM D664	mgKOH/g
TAN	ASTM D2896	mgKOH/g
ipH		
Viscosity	ASTM D445	mm <sup>2</sup> /s
<b>Additives</b>		
ZDDP AW	ASTM E2412	A/cm or A/0.1mm
Phenol / Amine AO	/	%
Others Upon Request	Correlates to reference analysis	A/cm or A/0.1mm, mg/kg or %
<b>Contaminants</b>		
Soot	ASTM E2412	A/cm or A/0.1mm, wt%
Water	ASTM E2412	A/cm or A/0.1mm, wt% or ppm
Ethylene Glycol	ASTM E2412	A/cm or A/0.1mm, wt%
Diesel	ASTM E2412	A/cm or A/0.1mm, wt%
Gasoline	ASTM E2412	A/cm or A/0.1mm, wt%
<b>Group V Polyolester and Phosphate Ester</b>		
Ester Breakdown 1	ASTM E2412	A/cm or A/0.1mm
Water	ASTM E2412	A/cm or A/0.1mm, ppm
Phenol AO	/	%
Amin AO	/	%
TAN	ASTM D2896	mgKOH/g

### Technical Drawings & Descriptions



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