

Product

The **FluidInspectIR®_PLUS** offers real-time monitoring of oil condition in a compact system. This plug & play analyzer can be easily installed remotely in the oil circuit bypass line, allowing for sampling via an electric valve or with a pump from the oil tank/reservoir.

This innovative system is configurable and compatible with various types of fluids and lubricants including mineral, PAO, PAG, Phosphate Ester, Polyolester, and water-based emulsions. Users can expect to receive essential oil and fluid parameters with the same format, units, and accuracy found in standard oil analysis laboratory reports.



Summary Information

- MIR sensor to measure key parameters in oils and lubricants in gears, engines, turbines, hydraulic and transmission systems, metal working (see overleaf)
 - Correlates to ASTM / DIN
- Asset oil temperature up to 120C, higher optional
- Pump or electric valve integrated.
- Optional Viscosity sensor - KV40C/100C or flow sensor
- Error codes shown on display and sent directly via MODBUS or cloud communication.

Electrical / Mechanical Data

- Voltage: 100V to 240V AC or 24V DC
- Power: 120W Max
- Interfaces : Ethernet, RS485
- Dimensions/weight: 322W*232H*137D mm / 6kg
- Fluid Connections : G1/8 female thread for 6mm pipe (Hylok)

Key Benefits

- No need to use valuable human resources for oil sampling
- Reduction in Human–Machine interaction
- Data driven maintenance resulting in
 - Reduce unplanned downtime
 - Extended oil drain intervals
 - Reduction of CO2 footprint
 - Bottom line savings
- Support for warranty claims
- Enhanced data analytics to increase asset efficiency

Communication

- MODBUS (RTU, TCP), Profibus (available on request)
- Cloud integration via MQTT or Web API through provided modem or existing network
- Azure & AWS integration, others optional;
- Direct integration into on-site controllers



Applications and Measured Parameters

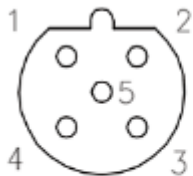
	Gas Engine (Landfill or LNG)	Turbomachinery	Hydraulic	Dielectric Oils	Gears and Rollers	Aluminium Rolling	Marine VLSFO / Diesel Engine	Diesel Engine	Marine Stern Tube / Thruster EAL	Metal-Working Fluids/Emulsions
Oxidation – abs/cm	✓	✓	✓	✓	✓		✓	✓	✓	
Nitration – abs/cm	✓									
Sulphation – abs/cm	✓						✓	✓		
ipH	✓									
Water – Low end (<1%)	✓	✓	✓	✓	✓		✓	✓	✓	
Water – Mid end (1-15%)					✓					
Water – High end (>15%)					✓					
Water/glycol %			✓							
TBN – mgKOH/g	✓						✓	✓		
TAN – mgKOH/g	✓	✓	✓	✓	✓		✓		✓	
KV100C – cSt (or mm/s ²)	✓						✓	✓	✓	
KV40C – cSt (or mm/s ²)		✓	✓	✓	✓	✓			✓	
Fuel Dilution							✓	✓		
Amine AO – %		✓								
Phenol AO – %		✓								
Mobil Wyrol 2,4,6,8 – wt%						✓				
Total Concentrate – m/m%										✓
Brix										✓
Specialist Additive Packages – m/m%										✓
Other additives upon request	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- Repeatability: <+-5% of measured value
- Accuracy: <+-5% of measured value

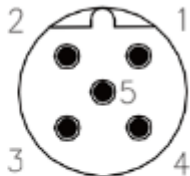


Pin Assignment 5 pol RS485 M12

- M12 female for RS485 Modbus communication (unterminated)



Pin assignment of the
Sensor connector

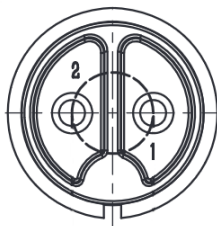


Pin assignment of the
Cable connector

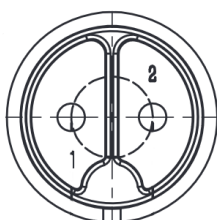
Pin	Function
1	+5V DC
2	A
3	GND
4	B
5	Shield

Pin Assignment 2 pol 24V DC Version

- 2 pol LP-16 02 Series female connector.
- Cable provided with open endings (pig tails)



Pin assignment of the
Sensor connector

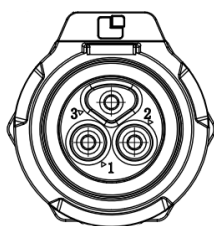


Pin assignment of the
Cable connector

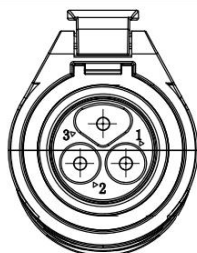
Pin	Function
1	24V
2	GND

Pin Assignment 3 pol 100-230V Version

- 3 pol LP-16 02 Series female connector.
- Cable provided with open endings (pig tails)



Pin assignment of the
Sensor connector



Pin assignment of the
Cable connector

Pin	Function
1	Live
2	Neutral
3	Earth

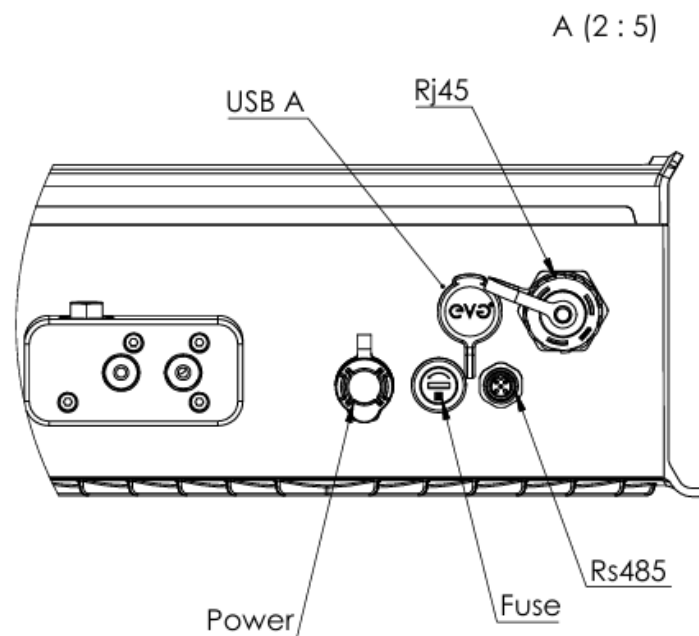
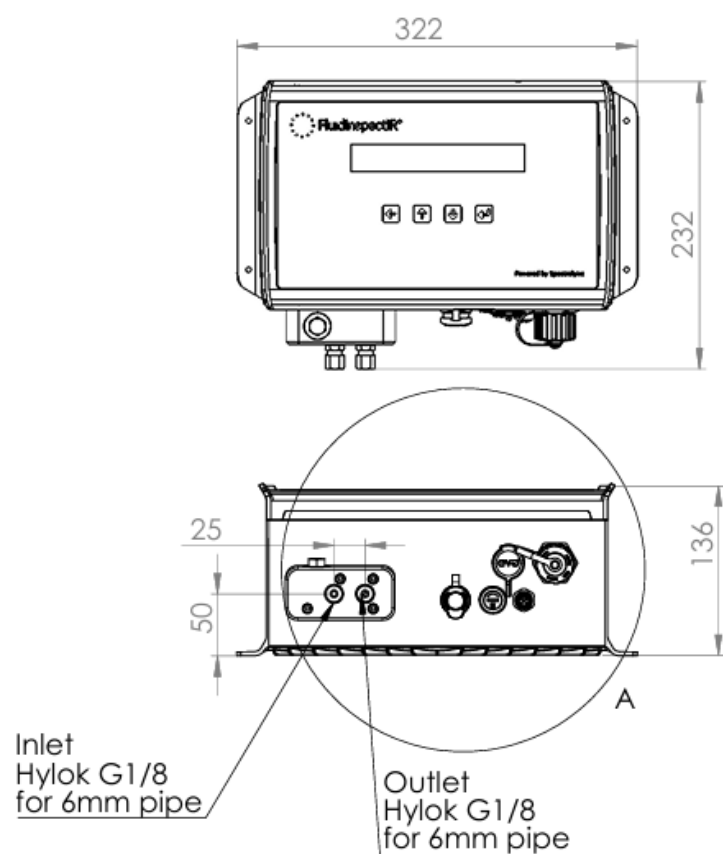




FluidInspectIR[®]

PLUS

Technical Drawings



Spectrolytic
Innovative Solutions in Spectroscopy

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