

Product

The **FluidInspectIR®_Ultra** is a compact system tailored for real-time fluid condition monitoring. It comprises, IR fluid condition monitor sensor, viscosity sensor and an optical particle counter/ wear sensor. The plug & play analyser and can be installed remotely in the fluid circuit bypass line with sampling from either a pressurized line or a fluid tank / reservoir.

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

Data are typically sent to the cloud where the data is processed and then displayed on a customized dashboard. Data can be used to issue alarms via the I/O interface



Summary Information

- Fluid Condition Sensor to measure key parameters in fluids and lubricants.
 - Correlates to ASTM / DIN standards
- Asset fluid temperature up to 80C
- Electric valve and optional pump integrated.
- Integrated Viscosity sensor - KV40/100C.
- Integrated Optical Particle Counter
 - Optional ISO4406 OPC or Particle/wear classification.

Electrical / Mechanical Data

- Voltage: 100V to 240V AC or 24 V DC
- Power: 120W Max
- Interfaces : Ethernet, Wifi, RS485, Digital I/O
- Dimensions/weight: 460W*117H*361D mm / 12kg
- Fluid Connections : G1/8 female thread for 6mm pipe (Hylok)



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Innovative Solutions in Spectroscopy

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User Notifications

- Possibility to display system status, warning and error messages or parameter values on the screen
- Notifications can be provided via the DIO

Communication

- Global GSM connection capabilities using optional internal or external modem
- Integration into customer network via ethernet or RS485

Whilst the Company takes every precaution in the preparation of its catalogues, technical circulars, price lists and its other literature, these documents are for the Buyer's general guidance only and the particulars contained therein shall not constitute representations by the Company and the Company shall not be bound thereby.



Applications and examples of 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 Wylol 2,4,6,8 – wt%						✓				
Total Concentrate – m/m%										✓
Brix										✓
Specialist Additive Packages – m/m%										✓
Other additives upon request	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ISO 4406 Classification		✓	✓	✓	✓	✓			✓	✓
Wear Particle Classification	✓	✓	✓		✓	✓	✓	✓	✓	

Parameter Equivalency +/- 5% to standard lab measurements

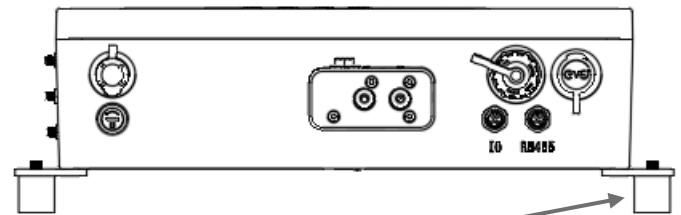
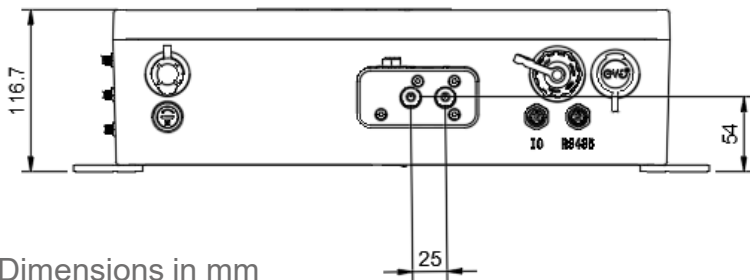
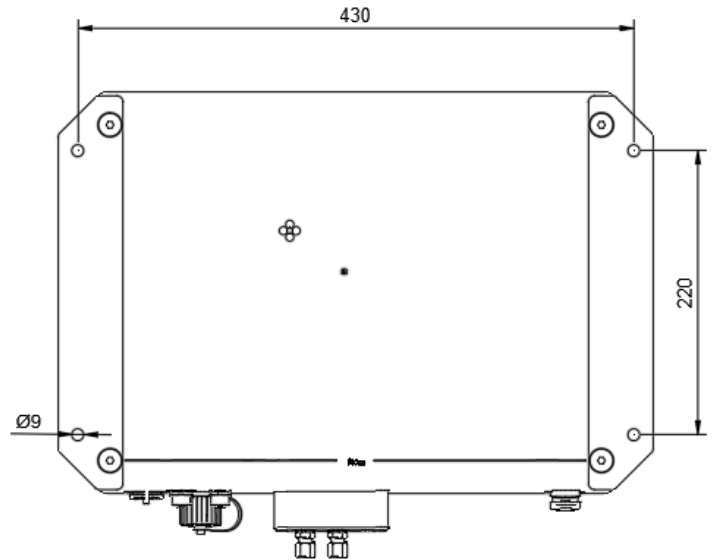
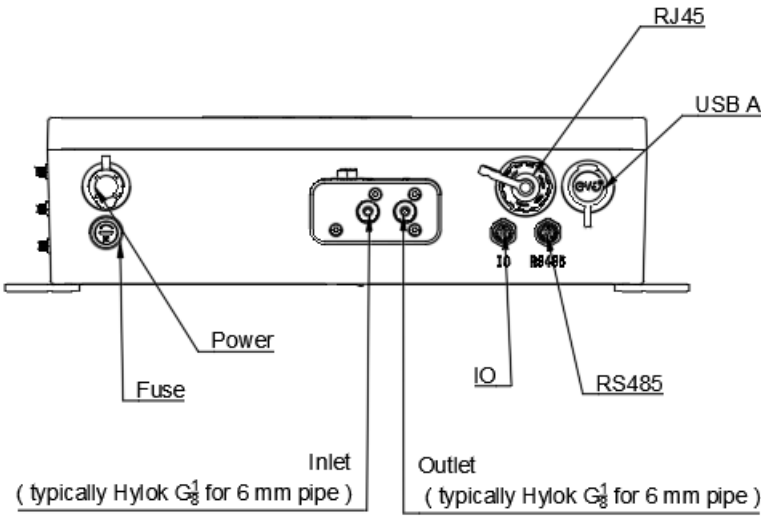
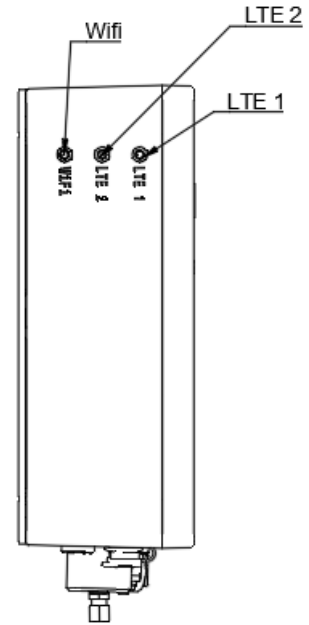
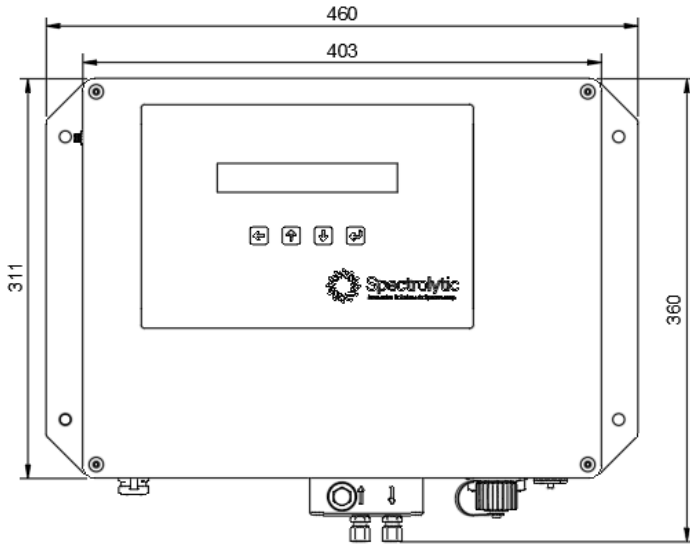




FluidInspectIR[®]

ULTRA

Technical Drawings



Dimensions in mm

Anti vibrational mounts may add up to 50 mm



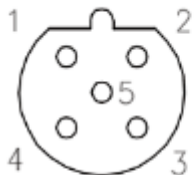
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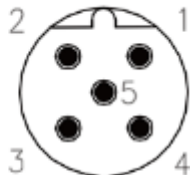
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Pin Assignment 5 pol RS485 M12

- M12 female for RS485 Modbus communication (unterminated)



Pin assignment of the Sensor connector

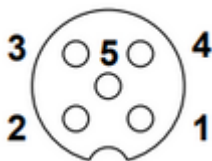


Pin assignment of the Cable connector

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

Pin Assignment 5 pol M12 (Digital IO)

- M12 female connector configured for Digital Input/Output signals.



Pin assignment of the Sensor connector

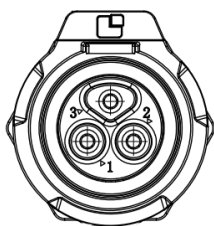


Pin assignment of the Cable connector

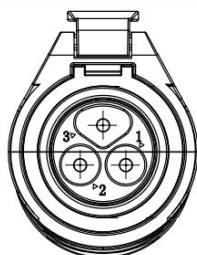
Pin	Function
1	GND
2	IN1
3	IN2
4	OUT (24V)
5	Not connected

Pin Assignment 3 pol 100-230V AC

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



Pin assignment of the Sensor connector



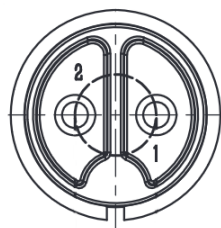
Pin assignment of the Cable connector

Pin	Function
1	Live
2	Neutral
3	Earth

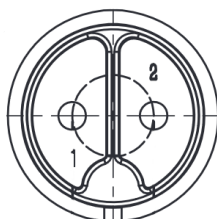


Pin Assignment 2 pol 24V DC Version

- 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

Typical package contents

Quantity	Item
1	FluidInspectIR Ultra unit
1	Power cord (unterminated)
2	G1/8 Male to 6mm pipe connector with washers
2	Metal mounting brackets
4	Anti-vibration legs
1	Ethernet cap