

Product

Introducing the **FluidInspectIR[®]_DEV**, a cutting-edge development platform system tailored for real-time oil condition monitoring. Ideal for research and development endeavors, this platform seamlessly integrates an array of sensors into a single box system.

Versatile and adaptable, the **FluidInspectIR[®]_DEV** is compatible with a wide range of fluids and lubricants, including mineral, PAO, PAG, Phosphate Ester, Polyolester, and water-based emulsions and solutions.

Users benefit from receiving crucial oil and fluid parameters presented in a standardized format, ensuring consistency with traditional oil analysis laboratory reports. Experience the convenience of accessing key data with precision and accuracy through this innovative monitoring solution.



Summary Information

- **MIR sensor** to measure key parameters in oils and lubricants in gears, engines, turbines, hydraulic and transmission systems, metal working (see overleaf)
- Integrated **Viscosity sensor** :
 - KV40C/100C range from 1cST to 650cST depending on inline oil temperature
- Integrated **Optical Particle Counter** (ISO 4406)
- Other sensors readily available for integration ie Conductivity Probe, pH meter, wear sensor

Electrical / Mechanical Data

- Voltage: 100V to 240V AC or 24V DC
- Power: 120W Max
- Interfaces : Ethernet, RS485
- Dimensions/weight: ≈ 400 * 400* 207 mm / ≈ 15 kg
- Fluid Connections : G1/8 female thread for 6mm pipe (Hylok)

Communication

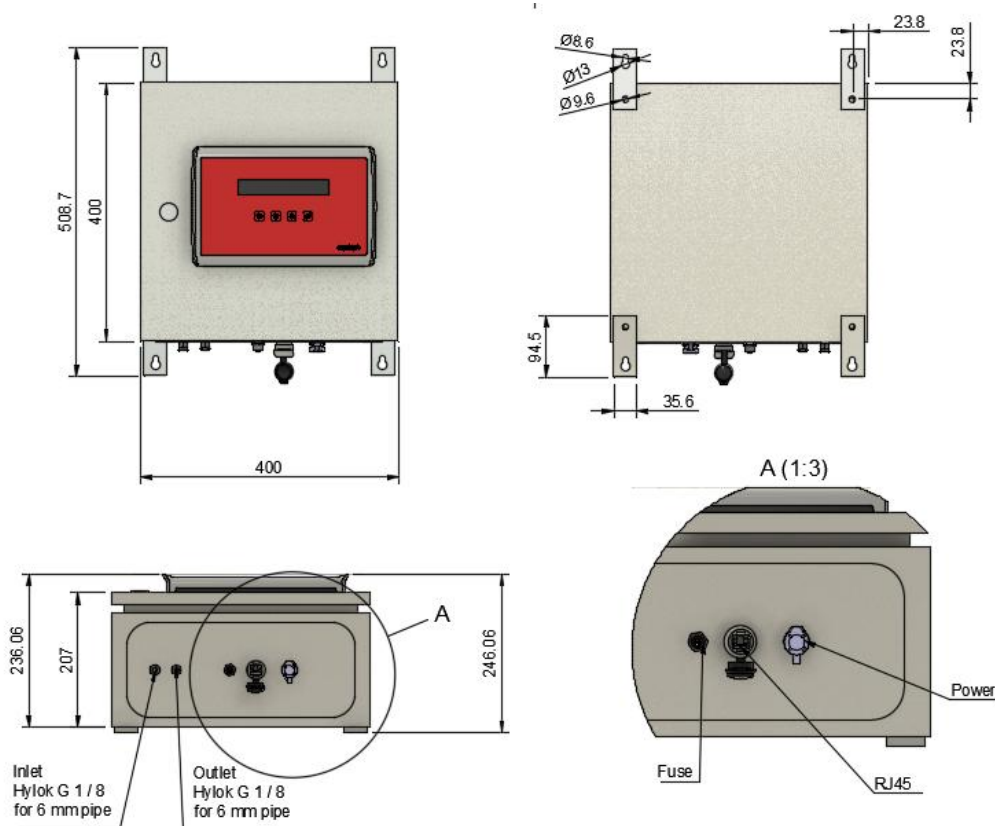
- MODBUS (RTU, TCP), Profibus
- Cloud integration via MQTT or Web API
- Azure & AWS integration, others optional;
- Direct integration into on-site controllers

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



Notes: Dimensions in mm



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