ISL-B Series

Bypass Multi-Parameter Oil Condition Sensor



The ISL-B Series bypass multi-parameter oil condition sensor adopts patented multifunctional integrated detection technology combined with an industry-leading backend data processing module. It delivers wide measurement range, high accuracy, and multifunctional oil condition monitoring. The sensor supports external bypass pipeline installation, making it suitable for various industrial applications, including: Wind turbine gearboxes; Power generation systems; Diesel engines; Marine diesel engines. It enables simultaneous measurement of: Viscosity; Density; Dielectric constant; Water content; Temperature; Wear particles

This truly realizes a highly integrated, compact, and multifunctional online oil condition monitoring solution.

Product Features

Highly integrated design ● Adapted to complex working conditions ● Multi-parameter integration

Compact size & multiple functions

Reduce openings

Maintenance-free

Highly integrated design – up to 27 output parameters

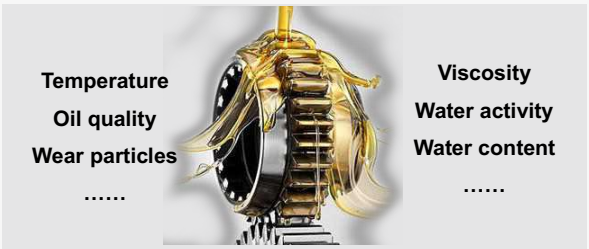
Dynamic viscosity monitoring: up to 1500 cP

Unique zero-loss design

Ultra-long maintenance-free service life



Comprehensive equipment condition monitoring



Unique structural design

Ingeniously integrates multiple monitoring probes into a compact design, accommodating various high-precision sensing components. Data is output via RS485, tailored for integrated industrial applications.



Composite material process

PTFE coating ensures corrosion and heat resistance, maintaining sensor stability. The enclosure uses aerospace aluminum for durability, thermal efficiency, and reduced weight."

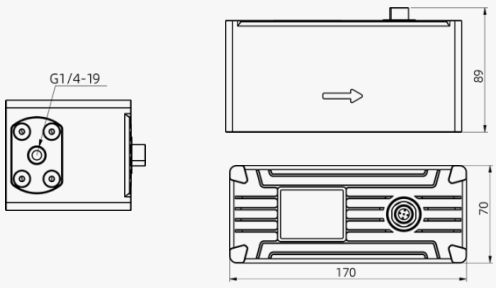


Remote monitoring intelligent operation and maintenance diagnosis center

Oil Cloud

www.youyeyun.com

Product Dimension



FLUID ANALYSIS CONSULTING & TRADING CO.

Plot No. 12 (South), Navodaya Colony, IDA Cherlapally Phase V, Hyderabad-500 051. Telangana, INDIA.
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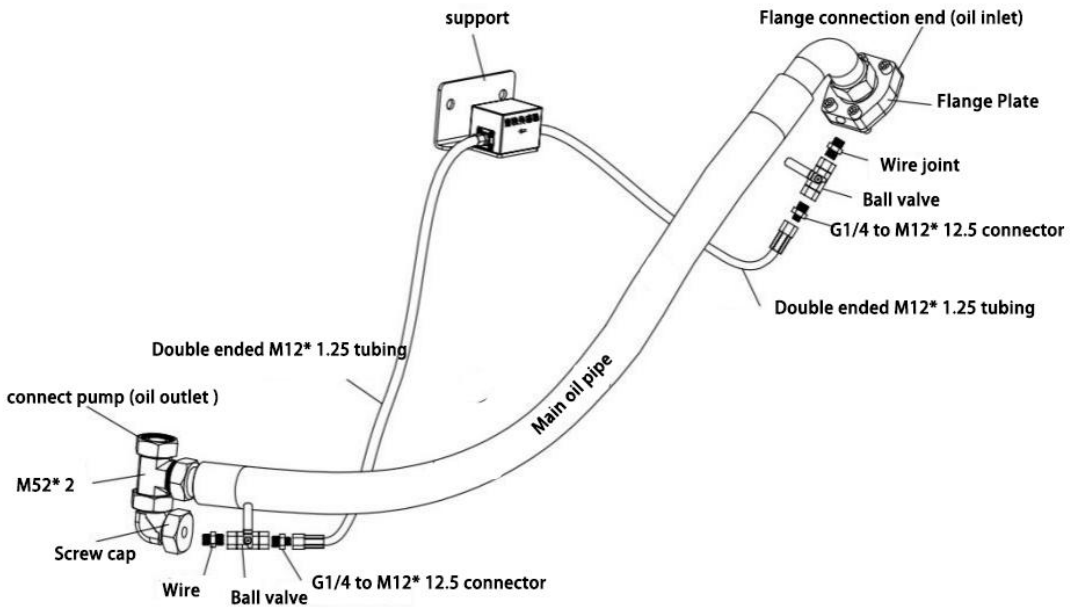
Specification

Parameter	Range	Accuracy	Resolution
Dynamic Viscosity	10–1500 cP	±3% or 8 cP	0.01 cP
Water Activity	0.03–1 Aw	±0.03 Aw	0.001 Aw
Dissolved Water	1–10000 ppm (model calibrated)	±10% or 50 ppm	1 ppm
Free Water	0.03–100% (selectable range)	±0.3%	0.01%
Oil Quality Index	1–80	±3%	0.01
Density	600–1500 kg/m³	±3%	0.01 kg/m³
Temperature	−35 to 85 ℃	±0.5 ℃ or ±3%	0.1 ℃
Ferromagnetic Particles	30–800 μm	≥95% (typical)	—
Non-ferromagnetic Particles	120–1600 μm	≥95% (typical)	—
Wear Concentration	Real-time	1 mg/L	1 mg/L
24-hour Particle Count	Real-time	1	1
Flow Monitoring	Indicative value	1 ml/min	1 ml/min

Electric Performance

Communication Interface	Data Transmission	Power Consumption	Supply Voltage	Weight	Housing Material	Cable Length	Protection Rating
5-pin aviation connector	Modbus / CAN / 4–20 mA	≤ 5 W	DC 9–36 V	600 g	Special aluminum alloy	1.5 m	IP65

Installation Diagram

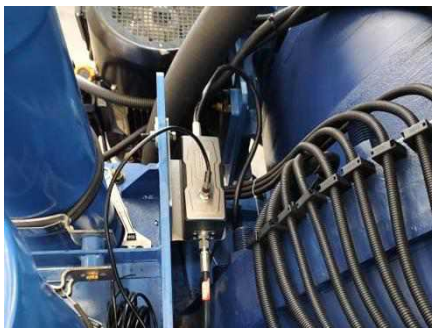


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Applications

Industries: Steel / Petrochemical / Shield Tunneling / Power Generation / Wind Power / Heavy Equipment / OEM

Oils: Gear Oil / Hydraulic Oil / Turbine Oil / Diesel Engine Oil











All parameters are obtained from laboratory testing. Actual performance may vary depending on operating conditions. These parameters are not used as final acceptance criteria.

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