

Portable Oil Moisture Meter

Advanced Moisture Analysis for Optimal Oil Management

Model : POM - 203



Introduction

In the realm of industrial operations, the health of machinery and equipment is a critical factor that directly impacts productivity, efficiency, and profitability. Lubricating oils are the lifeblood of mechanical systems, reducing friction, dissipating heat, and preventing wear and tear on moving parts. However, the presence of moisture in these oils can have detrimental effects, leading to accelerated corrosion, reduced lubrication effectiveness, and ultimately, equipment failure.

Moisture ingress can occur through various means—be it condensation due to temperature fluctuations, leaks in seals or gaskets, or contamination during storage and handling. Even minimal amounts of water can significantly compromise oil quality, promoting oxidation and acid formation, which deteriorate both the oil and the machinery it is meant to protect.

The **Portable Oil Moisture Meter** is specifically engineered to address this challenge by providing accurate, on-the-spot measurements of moisture content in oils. This sophisticated instrument empowers maintenance professionals, engineers, and quality control specialists to detect and quantify moisture levels promptly, enabling proactive maintenance strategies and informed decision-making.

Incorporating the Portable Oil Moisture Meter into your maintenance toolkit means investing in the longevity and reliability of your machinery. By accurately monitoring oil moisture content, you can prevent unplanned downtime, reduce maintenance costs, and enhance the overall efficiency of your operations.

Key Features

- ✓ **Wide Measurement Range:** -40 to +100°C(T), 0 to 1 aw(aw), 0...100 000 ppm(x); actual range depends on the oil type, for non-mineral transformer oil, specific solubility parameters are needed (ppm output is valid in the range 0...100 °C (32...212 °F))
- ✓ **High Resolution:** 0.01 °C / aw / ppm.
- ✓ **Intuitive Display:** 2.8" True Colour TFT touch screen for easy operation.
- ✓ **Inbuilt data logging** with **huge memory space**
- ✓ **Connectivity:** USB C-type port for data download via PC software (Sansel-Soft-01) (Optional).
- ✓ **Alarm Functions:** Audible and visible alarms with user-settable thresholds.
- ✓ **Robust Design:** Durable ABS housing with anti-slip grip and IP40 protection class.
- ✓ **Portable:** Compact dimensions and lightweight design for easy transport.

Experience precision and reliability with our Portable Oil Moisture Meter—your essential partner for maintaining optimal oil quality and ensuring the longevity of your equipment.

By integrating this advanced tool into your workflow, you can proactively manage oil moisture levels, prevent equipment failures, and optimize operational efficiency.

Applications

- ❑ **Machinery Maintenance:** Quickly checks moisture levels in lubricating oils to prevent equipment wear and corrosion.
- ❑ **Hydraulic Systems:** Monitors moisture in hydraulic oils to avoid system malfunctions and ensure smooth operation.
- ❑ **Transformer Oil Testing:** Measures moisture content in transformer oils to maintain electrical insulation and prevent failures.
- ❑ **Quality Control:** Ensures oils meet required moisture specifications during production and before use.
- ❑ **Field Inspections:** Allows on-site moisture assessment of oils without the need for lab analysis.
- ❑ **Research and Development:** Supports studies on how moisture affects oil performance and aids in developing better oil formulations.
- ❑ **Automotive and Aerospace:** Checks moisture in oils used in vehicles and aircraft to ensure safety and optimal performance.
- ❑ **Environmental Monitoring:** Assists in analyzing moisture in used oils for recycling or disposal decisions.

Technical Specifications

Parameter	Specification
Model	POM 203 measures temperature (°C), water activity (aw) directly. Converts these into water content (ppm, mg/kg) using oil-specific saturation data.
Range	-40 to +100°C(T), 0 to 1 aw(aw), 0...100 000 ppm(x); actual range depends on the oil type, for non-mineral transformer oil, specific solubility parameters are needed (ppm output is valid in the range 0...100 °C (32...212 °F))
Resolution	0.01 °C / aw / ppm
Accuracy	@ 20 °C (68 °F) in oil : ±0.2 °C (±0.36 °F)
Display	2.8" True colour TFT display with touch screen
Display refresh rate	1 second (typical)
Display parameters	Water Activity(aw), Temperature(T), Water Content(x)
Temperature working range: Storage - Ambience - Oil -	-40...+60 °C (-40...+140 °F) -40...+60 °C (-40...+140 °F) / -40...+80 °C (-40...+176 °F) -40...+80 °C (-40...+176 °F) / -40...+100 °C (-40...+212 °F)
Units Temperature – Water Activity – Water Content –	°C aw (0–1) ppm (mg/kg)
Applications	Transformers, hydraulics, turbines, compressors, marine engines, industrial lubrication systems.
Data Logging Interval *	1 sec to 24 Hours (user selectable) (Only for POM 203-A)
Data download *	Via USB C-type to PC software (Sansel-Soft-01) (Only for POM 203-A)
Calibration	Multipoint Calibration feature available
Alarm	Audible & Visible user settable individual High & Low alarm set with alarm mode selection
Touch sound	On / Off option available
Integrated battery	3.7 V / 10,000 mAh rechargeable polymer Li-ion battery
Battery charging port	USB C-type
Backlight time interval	OFF to 59 mins : 59 secs (user adjustable)
Brightness adjustment	10 to 100% (user adjustable)
Application Environment Range	-10 to 60 °C / 0 to 100% RH (non condensed)
Storage environment range	-10 to 45 °C / 10 to 90% RH
Pressure working range	0...20 bar (0...290 psi)
Housing Material	ABS with anti-slip grip silicon cover
Protection class	IP40

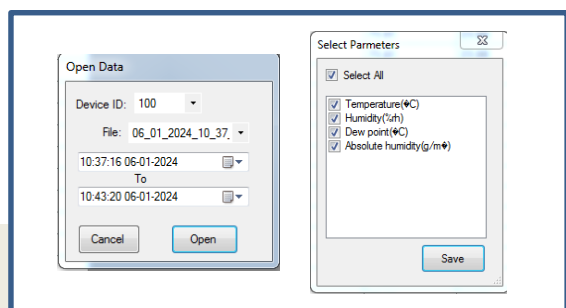
Overall Dimension (L x B x H)	35 x 80 x 165 mm
Instrument Weight	560 g (Approx.)

Note: Specifications are subject to change without notice.

Model identification & ordering code

Ordering Code	Standard Model (Without Logger)	* Advanced Model (With Data Logger)
	POM 203	POM 203-A

SANSEL Soft 01 (version 1.0)



Sanel Soft 01 is the ultimate data analysis software designed to import data from **POM 203-A models**. It enables ultra-fast downloading of stored data and converts it into visually compelling graphs through a user-friendly interface. Customize and enhance your visualizations, apply filters, and print directly from the tool. Perfect for laboratories, research institutes, hospitals, and food industries, Sanel Soft 01 is your go-to solution for powerful and easy data visualization. Where data meets design, Sanel Soft 01 delivers insights at your fingertips.

Note: POM 203-A is an ordering code indicating the model with built-in data logger.

Features

- ✓ Ultra fastest download data's in fraction of seconds from POM 203-A model to PC local database & analyze.
- ✓ Data Report & Graph view with user selectable parameters for both USB connected POM 203-A instrument's storage data and old Database stored data's in local PC.
- ✓ Report export in CSV & PDF format.
- ✓ Graph export in PNG & PDF format.
- ✓ Easy customized filter option available based on both Report & Graph view by Date & time for selected parameters.
- ✓ User selectable report Title, subtitle & logo for both Report & Graph.

- ✓ User selectable graph Title, X-label, Y-label, maker scale, Auto scale.
- ✓ Multiple POM 203-A Model possible to connect and download data one by one in single software.
- ✓ Software license key protection available to protect your software to misuse by unauthorized user in different PC.

Standard Delivery

1. Basic Instrument with sensor 2m cable
2. Charger with cable
3. Instruction manual

Optional

1. Protective Carrying Case
2. SANSEL-SOFT-01 software for POM 203-A
3. ISO/IEC 17025 Accredited Calibration Certificate

Important

Logged data can be downloaded, analysed, and printed only using the SANSEL-SOFT-01 software. Without this software, data retrieval is not possible



Carrying Case



SANSEL INSTRUMENTS AND CONTROLS SANSEL CALIBRATION LABORATORIES LLP

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879
(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

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