

Oil Content Analyzer

OCMA-500



Fully automated one-touch operation, from oil ext

The OCMA-500 Oil Content Analyzer has been redesigned for even better operability, maintaining its user-friendly features.

After injecting the sample, all you have to do is press a button to get the monitoring operation done quickly, from oil extraction to sample measurement and draining. This machine is easy for anyone to use.

The OCMA-500 cuts solvent consumption by 20% compared with our previous products, reducing environmental impact. It also reduces the running costs.



Easy monitoring at the touch of a button

After injecting the sample, all you have to do is press the START button, and the system will automatically conduct the monitoring operation from oil extraction to sample measurement and draining. With no more troublesome tasks like opening/closing the drainage valve, monitoring is speeded up. The color graphic LCD and the backlit extraction tank have improved operability.



1 Inject sample fluid



2 Extraction and measurement



3 Drain sample



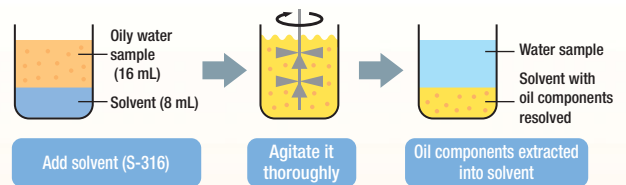
4 Data collection



Reduced environmental impact and running costs (20% cut in solvent consumption*)

Using infrared absorptiometry, the OCMA-500 extracts the oil contained in a sample fluid into solvent S-316 to measure the oil content in the solution with an IR analyzer.

The OCMA-500 cuts solvent consumption by 20% compared with our previous products, reducing environmental impact. It also reduces the running costs.



* Comparison with previous model



Various applications

Wastewater

- Factory wastewater (industrial waste: steel, petrochemical, and food industries)
- Sewage-treatment plant discharge water
- Bilge and ballast discharge of marine transportation (tankers)
- Petroleum-processing plant discharge water and checking the efficiency of oil/water separation processes

Environment

- Surveying environmental water quality in conformity with environmental standards
- Monitoring water quality around gas service stations and automobile repair shops
- Monitoring the discharge water produced when cleaning storage tanks at petroleum terminals
- Surveying oil diffusion in the case of tanker accidents and accidents at petrochemical plants

Parts

- Residual oil in wastewater from cleaning metal parts
- Oil components in cleaning fluids for metal parts
- Oil cleaning efficiency in semiconductor and plated metal bonding processes



Extraction to sample measurement and draining

Color graphic LCD

The OCMA-500 comes equipped with a 3.5-in color graphic LCD. Menus and measurement data can be clearly seen.



▲ Measurement screen

USB flash memory drive port

Storing data on USB flash memories enables easy data management on PCs.



▲ USB flash memory drive port

Measurement Mode

“Auto” and “Manual” valve control measurement are available.

Auto mode: you can measure Sample automatically.

Manual mode: Sample preparation, valve control and measurement are operated manually by cursor button control.

< In case of Manual Mode >

(▶) : Stir , (▲) : Liquid delivery , (◀) : Drain

Backlit extraction tank

The extraction tank is equipped with LEDs. Illuminating the tank makes it easy to check the phase separation between sample and solvent.



▲ Backlit extraction tank

Unit conversion

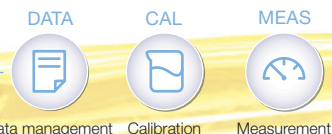
Inputting measurement conditions can change the units displayed (mg/L, mg/kg, mg/g, and mg/PC) as the user needs.

Multi Languages

“Japanese, English, Russian” languages are available.

Simple operation buttons

The buttons have been made simple, and switching between the measurement and calibration screens has been made easier.



Data management

Calibration

Measurement



With no need for a solvent evaporation process, the OCMA-500 offers easy operation, and can detect even oils with low boiling points.

The n-hexane extraction method* needs to evaporate solvent, and any oil with a low boiling point is also evaporated along with solvent. The OCMA-500 does not need to evaporate solvent, preventing evaporation of these kinds of oil (toluene and gasoline).

*N-hexane extraction method:

This method has been used to measure oil components in marine areas, etc. The method is stipulated in Annex 10 of the 1971 Environment Agency Notice No. 59 (N-Hexane Extractable Material (Oil and Grease) Measurement Method). It can produce errors when oil causing pollution contains gasoline, because it loses oils with a low boiling point by evaporation. Also, since it sometimes produces false positive errors due to sulfur compounds contained in soil and petroleum products, and hexane-soluble organic materials in soil, the influence of these substances has to be taken into account when assessing test results.

Specifications

| | |
|---------------------------------------|---|
| Model | OCMA-500 |
| Product name | Oil content analyzer |
| Measurement method | Solvent extraction - non-dispersive infrared absorption analysis method |
| Measured objects | Substances extracted from sample water into solvent and having infrared absorption near a wavelength from 3.4 μm to 3.5 μm |
| Measurement range | 0 mg/L to 200 mg/L |
| Resolution | For mg/L 0 to 99.9: 0.1, 100 to 200: 1 For mg/g, mg/kg, mg/PC 0 to 9.99: 0.1, 10.0 to 99.9: 0.1, 100 to 200: 1 |
| Repeatability | 0 mg/L to 9.9 mg/L: ±0.2 mg/L ±1 dig. 10.0 mg/L to 99.9 mg/L: ±2.0 mg/L ±1 dig. 100 mg/L to 200 mg/L: ±4 mg/L ±1 dig. * For standard liquids |
| Display method | 3.5 inches, 320 X 240 dots Backlight Color graphic LCD |
| Calibration method | Zero, span calibration |
| Amount of test sample required | Sample water : Solvent = 2:1 |
| Extraction solvent | S-316 |
| Amount of extraction solvent required | 8 mL |
| Extraction method | Built-in extractor |
| Ambient operating temperature | 0°C to 40°C (no condensation) |
| Power supply | AC 100 V to 240 V ±10%, 50/60 Hz |
| Power consumption | AC 100 V: Approx. 60 VA, AC 240 V: Approx. 90 VA |
| External dimensions | 342 (H) X 200 (W) X 313 (D) mm |
| Mass | Approx. 7 kg |
| External output | Output to an USB memory stick |
| Functions | <ul style="list-style-type: none"> ● 300-item data memory ● Self error determination ● Stabilized measurement value display ● Clock |

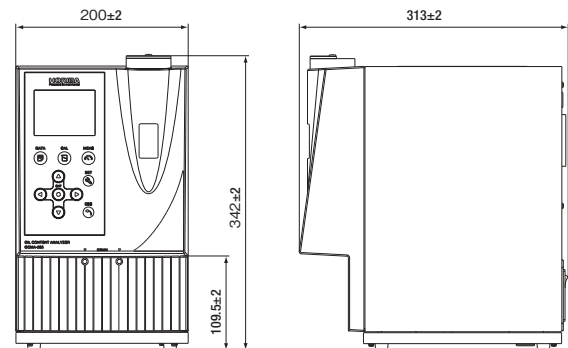
Standard Accessory

- Filter element For water filter, diameter 40mm, 5 in package
- Dropper Polyethylene, 2.5mL
- Code set Power supply cable
- B-heavy oil 10mL
- Instruction Manual

Optional parts

- Solvent S-316
- Measuring syringe set, Standard type
- Measuring syringe set, High repeatability type
- Packing For water filter

Dimensional Outline (unit:mm)



For the first purchase customer

In order to measure oil content with OCMA-500, you need the following products.
If you don't have these products, please purchase from optional parts list

OCMA-500



Solvent(S-316)



Measuring Syringe Set



or



Standard

High repeatability type



Please read the operation manual before using this product to assure safe and proper handling of the product.

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