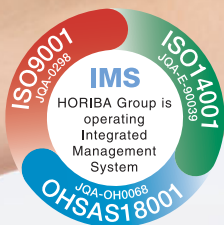


Oil Content Analyzer OCMA-500/550



500

For measurement of
Oil in wastewater

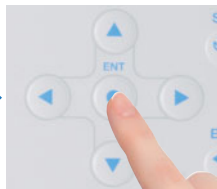
Oil Content Analyzer **OCMA-500**



OCMA-500 to measure concentration of oil contained in drainage and environmental water. After injecting the water sample and solvent, 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 operations like opening/closing the drainage valve, monitoring is speeded up. In addition, the color graphic LCD and the backlit extraction tank have improved operability.



① Inject water sample, solvent



② Measurement start



③ Extraction and measurement



④ Drain sample



⑤ Measurement completion

Feature

■ 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 and set the extraction time.



Before extraction



After extraction

*The color depends on the sample.

■ Reduction of environmental impact and running cost

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



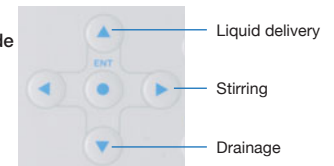
■ Measurement mode

Measurement can be switched automatically or manually.

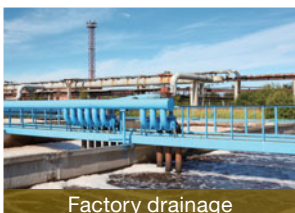
Auto mode Stirring, measurement and draining are automatically conducted after injection of the sample.

Manual mode You can conduct measurement operation at any timing while checking the extraction state.

■ Example of manual mode

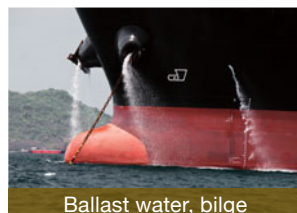


Fully used in various applications



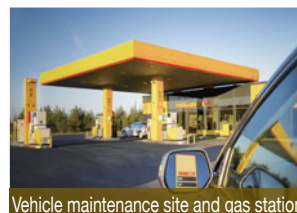
Factory drainage

For monitoring final discharge water



Ballast water, bilge

For monitoring discharge from ships



Vehicle maintenance site and gas station

For monitoring water quality in surrounding areas



Others

Water quality survey based on environmental standard. For monitoring final discharge from petroleum refinery plant. For oil dispersion research at time of an accident.

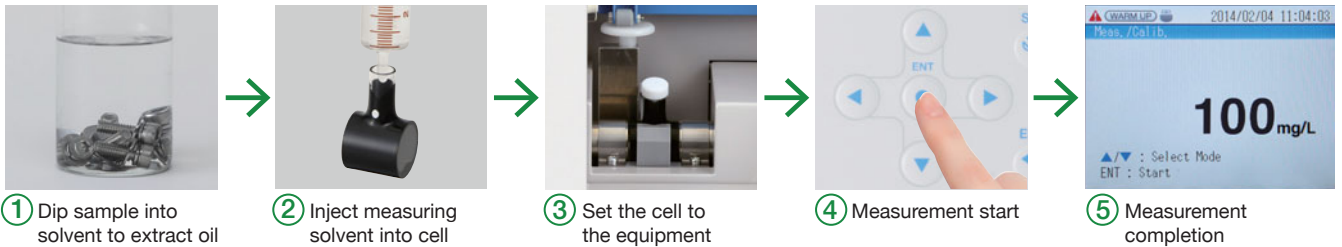
550

For measurement of
Residual oil on components

Oil Content Analyzer **OCMA-550**



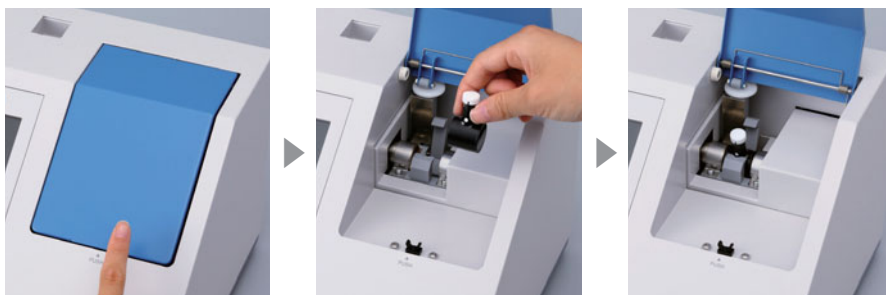
OCMA-550 to measure residual oil on components and concentrations of oil adhered on solids such as soil. Measurement can be easily made only by injecting the extracted water sample into the attached cell and setting it to the equipment. This model features a simple design which allows opening/closing of the door to setting of cell with just one hand. This is best for measurement of extracted samples such as evaluation of residual oil on components and measurement of oil contained in food.



Feature

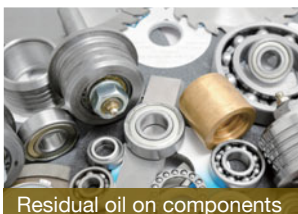
■ Cell is easily detachable with just one hand

Simple design which allows opening/closing of door and detachment of cell with just one hand. Measurement operation becomes smoother.



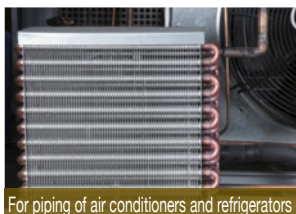
■ Timer function

A timer function to display a measurement value in a certain amount of time is equipped. This saves work and time required for measurement.



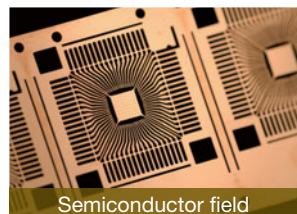
Residual oil on components

For quality control of components



For piping of air conditioners and refrigerators

To prevent reduction of cooling function



Semiconductor field

For evaluation of degreasing capacity



Others

Useful for soil (environmental pollution), food (health hazard) and gas (quality deterioration)

Automatic operation with one switch

Compact oil content analyzer OCMA-500 series.

Operability is significantly improved while user-friendly features of the conventional products are maintained as they are.

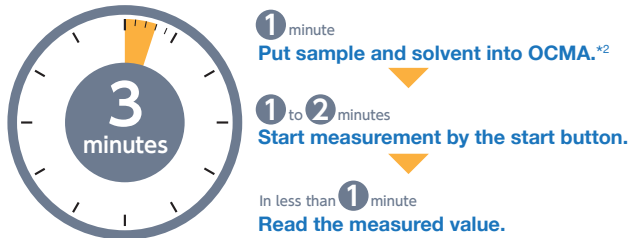
This machine is easy for anyone to use because all you have to do is press a button.

This can be utilized across wide variety of applications such as drain monitoring and quality control for components.

Easy and speedy measurement for approx. 3 minutes*1

Measurement can be easily made in a short time only by pressing the start button. Measurement time can be significantly reduced in comparison with the n-hexane extraction method.

*Excluding time for warming and calibration.



*1 Shortest time. Measurement time depends on quality of sample.

*2 In case of OCMA-500. Put extracted sample into the cell to set in case of OCMA-550.

Any oil with low boiling point can be measured

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



What is the n-hexane extraction method?

Testing method used to measure oil components. Because oil of a low-boiling component such as gasoline or toluene is volatilized, an error may occur if they are included. It is necessary to take note of them when making evaluations.

Improvement of operability

Color graphic liquid crystal

It is easier to see menu and measurement results because a 3.5 inch color graphic (LCD) is employed.



Unit conversion function

Indication unit (mg/L, mg/kg, mg/g, mg/PC) can be changed according to the purpose by inputting the measurement conditions.

USB data output port

It is easy to control data in a personal computer by saving data in a USB memory. *HORIBA recommended USB is available.



| Date | Value | Unit | Value(Raw) | Unit(Raw) | Status | Memo |
|------------------|-------|-------|------------|-----------|--------|----------|
| 2014/08/01 10:00 | 0 | mg/L | 0 | mg/L | 2 | sample01 |
| 2014/08/01 15:10 | 3.5 | mg/L | 3.5 | mg/L | 0 | sample02 |
| 2014/08/01 15:20 | 0.8 | mg/kg | 0.8 | mg/L | 0 | sample03 |
| 2014/08/01 15:30 | 0.9 | mg/g | 0.9 | mg/L | 0 | sample04 |
| 2014/08/03 15:00 | 0.9 | mg/L | 0.9 | mg/L | 0 | sample05 |
| 2014/08/03 15:10 | 5.4 | mg/L | 5.4 | mg/L | 0 | sample06 |
| 2014/08/03 15:20 | 5.2 | mg/L | 5.2 | mg/L | 0 | sample07 |
| 2014/08/08 15:30 | 4.9 | mg/L | 4.9 | mg/L | 0 | sample08 |
| 2014/08/09 16:00 | 2.1 | mg/L | 2.1 | mg/L | 0 | sample09 |
| 2014/08/10 18:00 | 1.7 | mg/L | 1.7 | mg/L | 0 | sample10 |
| 2014/08/10 18:00 | 1.8 | mg/L | 1.8 | mg/L | 0 | sample11 |
| 2014/08/10 18:00 | 1.7 | mg/L | 1.7 | mg/L | 0 | sample12 |
| 2014/08/10 18:00 | 2.7 | mg/L | 2.7 | mg/L | 0 | sample13 |

Output data (reference)

Multi-language function

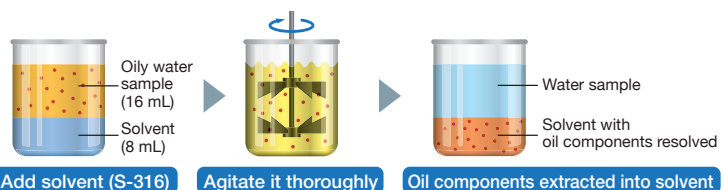
Japanese, English and Russian languages are available. Each language can be selected from the screen menu.



How to measure by OCMA

The OCMA-500 series extracts the oil components contained in a measurement sample into solvent (S-316) to measure the oil content with an IR analyzer.

*Carry out pre-washing for correct measurement.



*In case of OCMA-500



Oil Content Analyzer

OCMA-500

Standard Accessory

| | |
|------------------------|--|
| Filter element | For water filter, diameter 40 mm, including 5 elements |
| Dropper | Made of polyethylene, 2.5 mL |
| Code set | Power supply cable (for domestic use) |
| B heavy oil | 10 mL |
| Instruction manual | OCMA-500 |
| Water absorptive sheet | Liquid tray from extraction tank |

Option

| | |
|--|---|
| Oil extracted solvent | S-316 |
| Measuring Syringe set (Simple type) | Micro Syringe 25 μ L Measuring Syringe (For Sample) 20 mL Measuring Syringe (For Solvent) 10 mL |
| Measuring Syringe set (Standard type*) | Micro Syringe 25 μ L Measuring Syringe (For Sample) 20 mL Measuring Syringe (For Solvent) 20 mL |
| Packing | For water filter For extraction tank |
| Solvent Reclaimer | SR-305 |

*Measuring is easy because with stopper.

Oil Content Analyzer

OCMA-550

Standard Accessory

| | |
|--------------------|---------------------------------------|
| Dropper | Made of polyethylene, 2.5 mL |
| Code set | Power supply cable (for domestic use) |
| B heavy oil | 10 mL |
| Instruction manual | OCMA-550 |
| Cell | Quartz (20 mm): 1 piece |
| Cell cap | Cap for cell: 1 cap |







Option

| | |
|-------------------------------------|--|
| Oil extracted solvent | S-316 |
| Measuring Syringe set (Simple type) | Micro Syringe 25 μ L Measuring Syringe (For cell injection) 10 mL |
| Solvent Reclaimer | SR-305 |



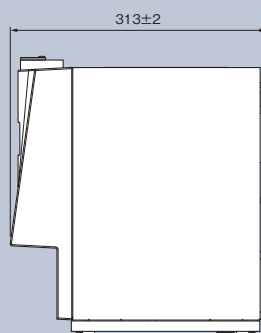
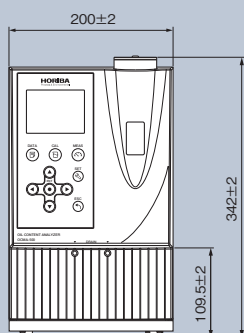
For the first purchase customer

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

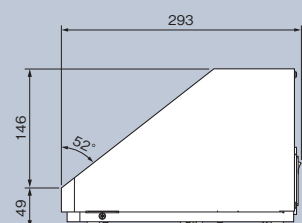
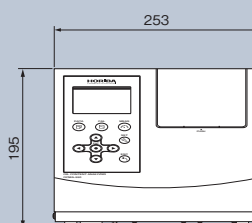
| Must items for measurement | | Recommended options (Not including maintenance parts) | |
|---|--|---|---|
| Standard Set | Solvent | Measuring Syringe set | Solvent Reclaimer |
| OCMA-500  + Standard Accessory | S-316  | Standard type (with Stopper)  *Choose from standard type or simple type | SR-305  Designed especially for recycling S-316 solvent, it features a 2-layer column of activated carbon and aluminum |
| OCMA-550  + Standard Accessory | | Simple type  | |

Dimensional Outline (Unit: mm)

OCMA-500



OCMA-550



■ Specifications

| | OCMA-500 | OCMA-550 |
|---------------------------------------|---|--|
| 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 | |
| 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 | 0 mg/L to 9.9 mg/L: ±0.4 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 320×240 dots Backlight color graphic LCD | |
| Calibration method | Select each optionally zero calibration and span calibration. | |
| Amount of test sample required | 2:1 (Sample water : Solvent) | — |
| Extraction solvent | S-316 *Do not use any other solvent than S-316. | |
| Amount of extraction solvent required | 8 mL (possible to measure even at 10mL) | Approx. 6.5 mL (Amount of extraction solvent required) |
| Extraction method | Built-in extractor | Using the extraction solvent, and extracted manually outside the product |
| 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 | AC 100 V - 240 V: Approx. 60 VA |
| External dimensions | 342 (H) X 200 (W) X 313 (D) mm | 195 (H) X 253 (W) X 293 (D) mm |
| Mass | Approx. 7 kg | Approx. 5 kg |
| External output | Output to an USB memory stick | |
| Measurement flow | Automatic measurement (automatic switching sequence) and manual measurement after injection of liquid | — |
| Cell length | — | 20 mm |
| Cell material | — | Quartz |
| Functions | 300-item data memory (measurement history) Self-error determination Stabilized measurement value display Clock function With backlight for stirred batch tank Unit conversion function | 300-item data memory (measurement history) Self-error determination Stabilized measurement value display Clock function Unit conversion function |



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

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