



**NIPPON**  
Advanced Technology In Color and Brightness.  
**DENSHOKU**

# COLOR METER FOR PETROLEUM PRODUCTS

## OME 2000

- **S**ample evaluation at high accuracy is possible thanks to its measuring capability equivalent to a color difference meter.
- **T**here is no need to adjust by a calibration plate since this instrument has been traced by the standard liquid conforming to the relevant specification.
- **S**ample evaluation is available under various industrial standards such as JIS, ISO and ASTM by making use of its highly accurate measuring capability.

ASTM

Saybolt

APHA

Gardner



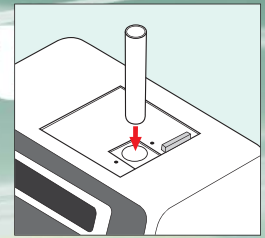
**An Industry-First!**  
**Each unit capable of color measurement to**  
**ASTM, Saybolt, APHA(Pt-Co) and Gardner.**  
**Can also handle Test Tube Measurement.**



ISO9001:2000

# COLOR METER FOR PETROLEUM PRODUCTS

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## Standard

JIS K 0071, JIS K 2580  
ISO 2211, ISO 6271  
ISO 4630, ASTM D 6045,  
ASTM D 1209, ASTM D 156,  
ASTM D 1500, ASTM D 1544

## Measuring range

ASTM : 0 ~ 8  
Saybolt : 35 ~ 16  
APHA(Pt-Co) : 0 ~ 500  
Gardner : No.1 ~ No. 18



**Traced to all Standard Samples specified in JIS K 2580 - 1993.**

## Features

### 1 High-Accuracy Measurement Capability

A high-speed 16-bit A/D converter (internally calibrated to 18-bit accuracy with built-in self-calibration function) and a low-drift, high-speed, high-accuracy amplifier are used to achieve measurement to 0.002% accuracy FSD (full-scale deflection)(Y=100.00). This ensures adequate discriminating performance not only for low-density but also for high-density samples.

### 2 Easy-to-See Screen Display

The use of a fluorescent display tube has both eliminated the problem of viewing difficulties from certain angles and provided clear visibility of the screen display even in a dark environment. The display also highlights important data in enlarged characters. Further, the display screen has a message display capability for interactive dialogue-style measurement.

### 3 Data Printout

The thermal printer with two stepping motors is built for long-life durability and extremely low printing and drive noise. Selective printout is available to print only the selected necessary data items.

### 4 Averaging Function

Averaging frequency can be set up to 99 times.

### 5 Traceability

The colorimeter is traced to all standard samples specified in JIS K 2580 · 1993.

### 6 Sample Name Input Function

Sample names can be entered in upper and lower case alphanumeric characters. These are printed out on the printer and transmitted from the RS-232C interface at the same time.

### 7 Clock Functions

The time of measurement (YY/MM/DD/HH/MM) is printed out with the measurement data. The measurement time is also sent from the RS-232C interface.

### 8 Memory Backup

The built-in lithium battery provides a backup for string the settings.

### 9 Computer Interface

RS-232C Specification

### 10 Test Tube Method (Option)

Test Tube method (option)  
Flow Cell (option) can be installed.

## Specification

|                              |  |
|------------------------------|--|
| Light Source for measurement | 12V 20W Halogen Lamp   |
| Light-Receiving Element      | Fast-response silicon photocell  |
| Tristimulus value filter     | Colored glass filter X-Y-Z   |
| Standard Light               | Standard color C/2° specified in JIS   |
| Electric Circuit             | Built-in stabilized power source, amplifying circuit, and microcomputer.   |
| Calibration                  | Automatic standard adjustment at the touch of a button.  |
| Cells Used                   | Saybolt color 100mm-ASTM color 33mm (other cells possible)   |
| Display                      | Fluorescent display : 256 × 64 dots<br>Display area : 166.15 × 41.35mm<br>Emitted colors : Blue-green  |
| Displayed Data               | Saybolt color, L*a*b*, ΔL*, Δa*, Δb*, ΔE*, ASTM color, X, Y, Z, DX, DY, DZ, ΣD, APHA (Pt-Co), Gardner Color and operating comment.   |
| Printer                      | Printing method : Heat-sensitive serial dot printer<br>Printing method : Bi-directional<br>Total number of dots : 256 × 8 dots<br>Printing speed : 1.1 sec / line<br>Paper width : 80mm<br>Total number of dots : 256 × 8 dots                                     |
| Printed Data                 | Saybolt color, L*a*b*, ΔL*, Δa*, Δb*, ΔE*, ASTM color, X, Y, Z, DX, DY, DZ, ΣD, APHA (Pt-Co), Gardner Color  |
| Sample Name Input Function   | Sample name input in upper and lower case alphanumeric characters. Sample names are printed out on the printer and transmitted from the RS-232C interface at the same time.  |
| External Output              | RS-232C (Standard)-Transmitted data : Measurement time (YY/MM/DD/HH/MM), sample number, averaged measurement display, ASTM Saybolt XYZ, DX, DY, DZ, ΣD, L*a*b*, ΔL*, Δa*, Δb*, ΔE*, APHA(Pt-Co), Gardner Color sample name of up to 10 characters can be keyed in. |
| Power Supply                 | AC Power Supply  |
| Power Consumption            | 130VA  |
| Dimensions                   | W 400 mm × D 400 mm × H 190 mm   |
| Weight                       | 12.2kg   |

\* As part of our ongoing policy of product improvement, these specifications are subject to change without prior notice.



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