

# Color, Oil & Haze Measuring Instrument

# COH 400

## for Color & Turbidity Simultaneous Measurements

By simultaneously measuring color and turbidity, visual appreciation characteristics of a sample to be measured can be figured out at a time.

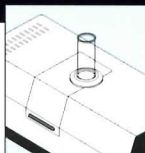
This simultaneous measurement is now made possible in a moment of time even for such samples as are changing in color and turbidity with passage of time, which were thought very difficult to be measured until now.



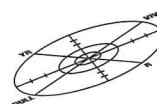
**Three roles by  
one unit**

### OPTION

*TURB* measurement (mg/L) is also available for polystyrene or kaolin turbidity standard solution.



Measurement of sample in a test tube is possible as it is.



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

### 3 measuring functions

Thanks to its 3 types of measuring functions equipped with this model, COH 400 displays its force in measuring transparent samples.

- Measuring color and color difference of films, resins, glasses and liquids, etc.
- Measuring haze, total light transmittance, diffuse transmittance, and parallel transmittance of films, resins, glasses and liquids, etc.
- Petroleum product color testing methods such as Saybolt color, ASTM color, APHA and Gardner color.

### 3 types of measuring methods

Color and turbidity can be simultaneously measured by a combination of 3 types of measuring methods.

### Measurement of liquid of low to high concentrations

Liquid samples of low to high concentrations can be measured as a liquid cell of 1 to 100mm can be set in place.



ISO 9001 certificate: Obtained in 2000

Three roles by one unit

for Color, Oil and Haze Simultaneous Measurements

# COH 400

## 3 measuring functions

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## Measurement of liquid of low to high concentrations

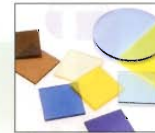
As a liquid cell of 1 to 100mm can be set in place, liquid samples of low to high concentrations can be measured.



Measuring color and turbidity of film products



Measuring color and turbidity of river and tap water



Measuring color and turbidity of resins such as acrylic



Measuring color and turbidity of petroleum products

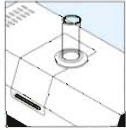


Measuring color and turbidity of glassware



Measuring color and turbidity of liquid products

◆ Type F Specifications for film measurement	
Optical conditions	Color: Conforming to JIS Z 8722, 0° -d method Turbidity: Conforming to JIS K 0101, Integrating sphere method Haze: Conforming to ASTM D 1003(JIS K 7105)
Light source	Halogen lamp, 12V50W
Measuring method	Color glass filter, Direct reading of tristimulus values of X, Y, and Z
Light receiving element	Silicon photocell quick response type
Standard light	C/2
Measuring accuracy	0.1% against full scale (Y=100.00), by 10 consecutive measurements, 30 minutes after the power is turned on.
Display	Fluorescent display tube: 256×64 dots Display area: 166.15×41.35mm Luminescent color: Bluish green
Display items	Lab, ΔLab, ΔE, L*a*b*, ΔL*a*b*, ΔE*, XYZ, xy, YI, W, WB, Haze, total light transmittance, diffuse transmittance, and parallel transmittance
Print items	XYZ, Lab, ΔLab, ΔE, L*a*b*, ΔL*a*b*, ΔE*, xy, YI, ΔYI, W, WB, LCh, ΔLCh, L*C*h*, ΔL*C*h*, HVC, Haze, total light transmittance, diffuse transmittance, and parallel transmittance
Printer	Thermal printer: Thermal serial dot printing, Total dots: 258×8 dots Print speed: 1.1 seconds/line
Averaging	99 times
External standard value	Setting by input from keyboard or from Lab or L*a*b*
Clock function	Measured time(year, month, day, hour and minute) is printed every time measurement is made.
External output	RS-232C output
Power supply	100VAC, 50/60Hz
Power consumption	Optical unit: 100V, 0.75A Measuring unit: 100V, 0.35A
Standard accessories	10mm square cell for liquid measurement(1), halogen lamp(1), printer roll paper roll(1), fuse(2), plastic cover(1), film clamp(1), warranty and instruction manual
Option	Employment of an optional liquid measuring attachment enables to use various types of liquid cells (1 to 100mm). · Saybolt, ASTM, APHA and Gardner colors can be measured. · TURB(mmg/l) of a polystyrene or kaolin turbidity standard solution can be measured.

◆ Type C Specifications for liquid measurement	
Optical conditions	Color: Conforming to JIS Z 8722, 0° -d method Turbidity: Conforming to JIS K 0101, Integrating sphere method Haze: Conforming to ASTM D 1003(JIS K 7105) Color test for petroleum products: Conforming to JIS K 2580 (Saybolt, ASTM, APHA and Gardner colors)
Light source	Halogen lamp, 12V50W
Measuring method	Color glass filter, Direct reading of tristimulus values of X, Y, and Z
Light receiving element	Silicon photocell quick response type
Standard light	C/2
Measuring accuracy	0.1% against full scale (Y=100.00), by 10 consecutive measurements, 30 minutes after the power is turned on.
Display	Fluorescent display tube: 256×64 dots Display area: 166.15×41.35mm Luminescent color: Bluish green
Display items	Lab, ΔLab, ΔE, L*a*b*, ΔL*a*b*, ΔE*, XYZ, xy, YI, W, WB, Haze, total light transmittance, diffuse transmittance, parallel transmittance, Saybolt color, ASTM color, APHA and Gardner color
Print items	XYZ, Lab, ΔLab, ΔE, L*a*b*, ΔL*a*b*, ΔE*, xy, YI, ΔYI, W, WB, LCh, ΔLCh, L*C*h*, ΔL*C*h*, HVC, Haze, total light transmittance, diffuse transmittance, parallel transmittance, Saybolt color, ASTM color, APHA and Gardner color
Printer	Thermal printer: Thermal serial dot printing Total dots: 258×8 dots Print speed: 1.1 seconds/line
Averaging	99 times
External standard value	Setting by input from keyboard, or from Lab or L*a*b*
Clock function	Measured time(Year, month, day, hour, and minute) is printed every time measurement is made.
External output	RS-232C output
Power supply	100VAC, 50/60Hz
Power consumption	Optical unit: 100V, 0.75A Measuring unit: 100V, 0.35A
Standard accessories	100mm & 33mm square cells for liquid measurement (1 each), halogen lamp(1), printer roll paper roll(1), fuse(2), plastic cover(1), warranty and instruction manual.
Option	 <ul style="list-style-type: none"> <li>Sample in a test tube can be measured as it is.</li> <li>TURB(mmg/L) of a polystyrene or kaolin turbidity standard solution can be measured.</li> <li>By attaching an optional film clamp, such samples as glass and film can be measured.</li> </ul>

\*Specifications are subject to change due to technical improvement of this product.



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