

**COLORIMETER
FOR
PETROLEUM
PRODUCTS
model
ACL-2**



Model **ACL-2** was designed for automatic measurement of **Saybolt/ASTM color** of petroleum products utilizing the Tri-Stimulus method as prescribed in ASTM D6045, which correlates with the conventional D156 and D1500 respectively. Just set up a sample and press the START key; the test result will be displayed on the fluorescent display module in just a few seconds, and since all the subjective judgment is eliminated, a perfect traceability is attained.

TRACEABILITY: No subjective judgment plus a full capability of easy and precise calibration assure high level of traceability that is required by modern quality assurance programs such as ISO-9000 series.

ACCURACY: Combination of a high-speed 16 bit A/D converter and low drift/high precision amplifier assures an extremely high accuracy. No more guess work, especially for the tricky Saybolt color measurement.

QUICKER THAN SPECTROPHOTOMETER: A typical measurement takes a mere 9 seconds, which is considerably shorter than the time a spectrophotometer would require. (typically 25 seconds)

USER FRIENDLY DESIGN:

-A dialogue type operation plus dedicated design for color measurement of petroleum products assure the easy operation. Just select the desired color scale from the menu, pour a sample in the sample cell, set it in cell compartment, and press START key; accurate test result will be ready in 7-10 seconds.

-The new design sample cell takes a smaller sample volume (1/3 of the conventional rectangular cell's) because of its cylindrical design. Also featured is plastic caps, which prevents sample spill when the sample cell is set in the instrument.

-Capabilities of Platinum-Cobalt color scale for solvents and Gardner color scale for varnish have been added.

WIDE SELECTION OF OPTIONS:

-Flow-through cells for easy connection to automated sample handling systems.

-Calibration Fluid Samples made to the Appendix of ASTM D6045 for easy/accurate calibration.

-Rectangular sample cells for easy pouring of wax samples.

SPECIFICATIONS:

TYPE:

Transmittance colorimeter for petroleum products by tri-stimulus method

CONFORMING STANDARDS:

ASTM D6045, JIS K2580

COLOR SERIES:

Saybolt color (ASTM D6045/D156),
ASTM color (ISO 6271, ASTM D6045/D1500),
Platinum-Cobalt color (ISO 6271, ASTM D1209)
Gardner color (ISO 4630, ASTM D1544)

LIGHT SOURCE:

Halogen bulb (12V 20W)

LIGHT RECEIVER:

Fast response silicon photo cells

TRI-STIMULUS FILTERS:

Colored glass filters

DISPLAYED PARAMETERS:

Saybolt color, L^*a^*b , ΔL^* , Δa^* , Δb^* , ΔE^* ,
ASTM color, X, Y, Z, DX, DY, DZ, ΣD ,
Pt-Co color, YI, Gardner color

AUTOMATIC CALIBRATION:

Single point or multi point calibration using calibration samples.

SAMPLE CELLS:

Cylindrical glass cell with caps
100mm pass length for Saybolt color
33mm pass length for ASTM, Pt-Co, Gardner color

DISPLAY MODULE:

Fluorescent display module, 256 x 64 dots

PRINTER:

Thermal printer with 80mm paper width

DATA OUTPUT:

1 set of RS-232C port (standard)

SIZE AND WEIGHT:

400W(mm) x 400D(mm) x 190H(mm), 12.2Kg

POWER CONSUMPTION:

AC 100-240V, 130VA

Specifications are subject to change without prior notice.

ORDERING INFORMATION:

STANDARD ACCESSORIES:

2x Glass sample cells with caps for Saybolt color
2x Glass sample cells with cap for ASTM, Pt-Co
and Gardner colors
2x Printer paper rolls
1x Spare halogen bulb
1x Spare fuse

OPTIONS:

1. Calibration Fluid Samples (set of 11 samples)
2. Cylindrical Glass Cells (set of 11)

NOTE:

*To attain a high degree of traceability, it is highly recommended that ACL-2 be verified/calibrated on a regular basis.

*To avoid contamination and for convenience, it is highly recommended that each Calibration Fluid Sample be kept in a dedicated sample cell.

*The Calibration Fluid Samples are manufactured in accordance with ASTM D6045, Appendix X1.

*Each Calibration Fluid Sample comes with a certificate.

3. Flow-through cell for Saybolt color
4. Flow-through cell for ASTM, Pt-Co, Gardner color
5. Square glass cell with open top for wax samples



Optional flow-through cell installed in the sample compartment

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