HORIBA

Explore the future

GLOSS CHECKER

IG Series

IG-320
IG-331

High-precision measurements with an integral light source and detector lets the user gather and view averaged data.

IG-320

Digital display brings pinpoint accuracy to gloss evaluation.

High-efficiency and flexibility utilizing a separate detector and light source offers the ability to switch between 60 and 20 degree measuring angles.

IG-331

CE marking compliant

Handy Digital Gloss Checkers Allow Objective, Quantified Gloss Measurements

Designed for greater ease of operation, maintain clean surfaces and improve quality control inspection in various industrial applications.

High-Efficiency Measurements Enables Easy Switching of Measuring Angles (60° and 20°)

The flexible, remote connection of the probe to the display unit ensures greater work efficiency and safety in all applications.

IG-331

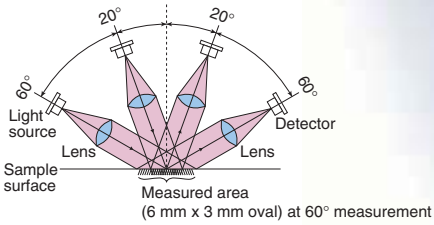
One-Touch Calibration

Just press the calibration key (CAL) to start automatic, sequential zero-span calibration.

Selectable Measuring Angle (60° or 20°)

Choose 60° for standard gloss measurements. For high-gloss surfaces with gloss values over 70, simply switch to the 20° measuring angle. The selectable angle feature makes it easy to measure glossy surfaces.

■ **Gloss Checker IG-331 Optical System**

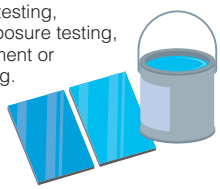


CE marking compliant

Versatile applications

●Quality control of paint and ink

For quality testing, outdoor exposure testing, hue adjustment or luster testing.



●Check and diagnosis of coated surfaces

Check external coating, cleaning or waxing condition of vehicles, shops, aircraft, bridges, iron/steel frames, and structures or prefabricated structures, etc., and diagnosis of deterioration.

●Checking printed matter

Evaluation of embellishing properties in varnishing stage (lamination, endless processing, etc.); evaluation of time-induced change and uniformity of surface after drying process; checking paper surface condition.

Guaranteeing uniform production quality and standards for gloss mesurement. HORIBA's IG Series Gloss Checkers display gloss measurements as numerical data, eliminating ambiguity and ensuring objective evaluation of a product's quality. Compact in design and ready when powered on, all the user needs to do is hold the portable gloss checker against the surface being evaluated for quality control of paints, polishes, floor maintenance and many other industrial applications.

High-Precision Measurements Lets Users Gather Data or View Averages with a Single Key Operation

The compact, lightweight design is ideal for production line and outdoor applications.

IG-320

High-Precision Measurements with ±0.5% Full-Scale Reproducibility

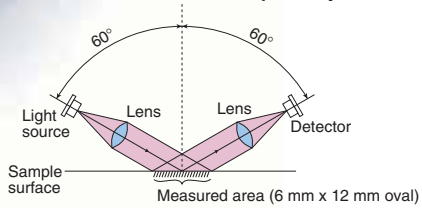
The combination of the near infrared ray pulse system, virtually unaffected by ambient lights or colors, and HORIBA's proprietary measuring system provides a high-precision gloss checking system compatible with JIS standards.

Gather Data or View Averages with a Single Key Operation

Up to 99 measurements can be taken with a simple key operation and averaged using another key. Up to 99 averages can be stored for later use. Easy data management promises smooth inspection work.

Up to 99 averages (AVERAGE No. 99) can be stored by repeating two simple steps.

■ **Gloss Checker IG-320 Optical System**



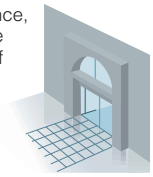
Measured area (6 mm x 12 mm oval)

●Checking external appearance of plastic molding

For checking external appearance of molded resin products and evaluating weather resistance.

●Checking building and masonry finishes

Inspection of external appearance, completed product test and site finish test in production stage of enamel, sash, floor materials, stone materials, furniture, etc.



●Floor maintenance needs

Inspection of waxed floor finishes in hotels, office buildings and stores.

●Other uses

For checking quality and external appearance of film, tape, rubber, leather, etc.

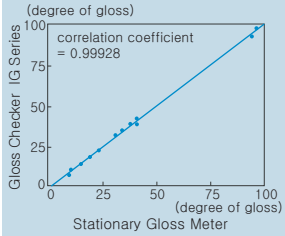
■ Specifications

	IG-331	IG-320
Optical system	60° measurement: Incident angle 60° Reception angle 60° 20° measurement: Incident angle 20° Reception angle 20°	Incident angle 60° Reception angle 60°
Measuring area	60° measurement: 3 x 6 mm oval 20° measurement: 3 x 4 mm oval	12 mm x 6 mm oval
Light source	LED (wavelength: 890 nm)	LED (wavelength: 880 nm)
Detector	SPD (silicone photodiode)	SPD (silicone photodiode)
Measuring range	0–100	0–100.0
Display range	0–199 (resolution: 1)	0–199.0 (resolution: 0.1)
Reproducibility	±5% F.S.±1 digit	±0.5% F.S.±1 digit
Power source	A3 dry-cell battery x 4 Not rechargeable	S-006P dry battery (9VDC) for operation, CR-2025 lithium battery (3VDC) for memory
Continued use time	50 hours or more	15 hours or more
Ambient conditions	10–40°C	0–40°C
Dimensions	Main body: 140 (W) x 75 (H) x 34 (D) mm 5.5 (W) x 3.0 (H) x 1.3 (D) in Optical system: 88 (W) x 30 (H) x 45 (H) mm 3.5 (W) x 1.2 (H) x 1.8 (H) in	78 (W) x 189 (H) x 58 (D) mm 3.1 (W) x 7.4 (H) x 2.3 (D) in
Mass	Approx. 350g (with battery)	Approx. 400g (with battery)
Additional Functions	Automatic calibration Automatic power cut-off Display hold Overrange display Battery life display	Automatic calibration Automatic power cut-off Display hold Overrange display Battery alarm Built-in data memory (max. 99) Computation of averages Keystroke confirming tone

Note: Use the 20° measurement mode of the IG-331 when the gloss value in the 60° measurement mode exceeds 70.

Accessory Protective cap (with standard surface for calibration)

■ Example of measurement of ceramic tile gloss



The above graph shows the results of measuring ceramic tiles, widely used as the standard surface for the medium-gloss range (secondary standard surface) because of the stability of surface conditions. The IG Series produces extremely precise values.

●What is Glossiness?

Gloss is a quantity that expresses the degree of reflection when light hits a surface. It is determined by comparing the strength of reflected light from the area being measured with that from the standard surface.

Award of Certification
ISO 14001 JQA-E-90039 (Head Office/Factory)
ISO 9001 JQA-0298

Horiba continues contributing to the preservation of the global environment through analysis and measuring technology.

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

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Bulletin:HRE-0000A

Printed in Japan ZM-N(SK)83