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**RHOPOINT** 



Disponible exclusivamente en Konica Minolta Sensing

KONICA MINOLTA

## Rhopoint IQ-S

- Brillómetro 20/60/85°
- Medidor DOI
- Medidor de neblina
- Goniofotómetro



# El Rhopoint IQ-S

El Rhopoint IQ-S está diseñado específicamente para adaptarse a los estándares de medición de brillo interior

El Rhopoint IQ-S cuantifica los problemas de calidad de la superficie que son invisibles para un brillómetro estándar.

El Rhopoint IQ-S mide la calidad de la imagen reflejada: es el único instrumento de mano que perfila cómo se refleja la luz desde una superficie. Los brillómetros se utilizan generalmente para medir el "brillo" de una superficie, pero no son sensibles a los efectos comunes que reducen la calidad del aspecto.

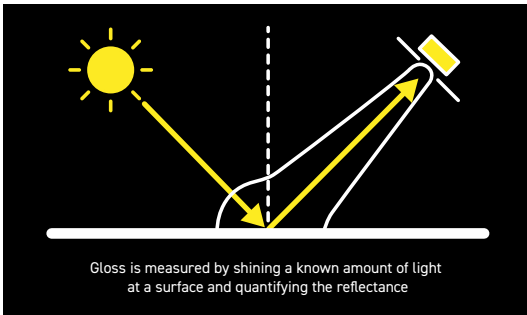
Las mediciones de brillo IQ-S son totalmente compatibles con los resultados de Micro-TRI-gloss - S existentes y vienen con una placa de calibración certificada ISO 17025 / UKAS.

El Rhopoint IQ-S  
puede medir:

- Brillo 20/60/85 °
- RSPEC
- Neblina de reflectancia
- Calidad de imagen reflejada
- Distinción de imagen (DOI)
- Curvas goniofotométricas



# What the Rhopoint IQ-S measures - in detail



## Gloss

A measurement proportional to the amount of light reflected from a surface.

**Geometry:** The correct measurement geometry should be used according to the sample finish – matt: 85°, mid gloss: 60°, high gloss: 20°



## RSPEC

The peak gloss measured over a very narrow angle.

**Usage:** It is very sensitive to surface texture and can be used to identify subtle differences in smooth surfaces.



## Distinctness of Image (DOI)

A measure of how clearly a reflected image will appear in a reflective surface.

*Orange peel dramatically reduces appearance quality without affecting gloss readings. These two test panels measure identically with a standard glossmeter. The Rhopoint IQ-S with RIQ/DOI measurement can quantify the differences.*





## Reflected image quality (RIQ)

RIQ is used to quantify effects such as orange peel and surface waviness. This new parameter gives higher resolution results compared to Distinctness of Image (DOI) measurement and better mimics human perception of surface texture, especially on high quality finishes such as automotive.

**Symptoms of Poor RIQ:** Orange peel, brush marks, waviness or other structures visible on the surface. Reflected images are distorted.

**Causes:** Application problems, incorrect coating flow, coating viscosity too high/low, sag or flow of coating before curing, incorrect particle size/distribution, overspray, improper flash/recoat time, inter coat compatibility, incorrect cure times and cure temperature.



## Reflectance haze

An optical effect caused by microscopic texture or residue on a surface.

**Visible Symptoms:** A milky finish is apparent on the surface with a loss of reflected contrast. Halos and patterns can be seen around reflections of high intensity light sources.

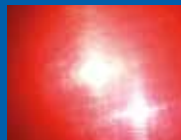
**Causes:** Poor dispersion, raw material incompatibility, additive migration, vehicle quality, stoving/drying/curing conditions, polishing marks, fine scratches, ageing, oxidisation, poor cleanliness/surface residue.

*Haze is a common problem associated with coatings and polished materials. Surfaces with haze have a "milky" finish with a "shallow" reflected image. This important characteristic is directly measured with the Rhopoint IQs.*

On surfaces with haze, halos are visible around the reflections of strong light sources



Low Haze



Higher Haze

## Reflectance haze compensation

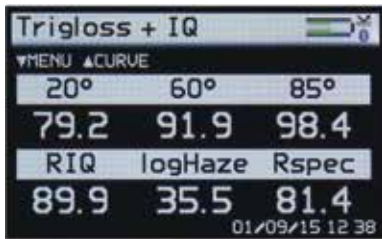
The instrument compensates for reflection from within the coating for highly reflective pigments, metallic coatings and speciality pigments, allowing the haze of any painted surface to be measured.



# Features

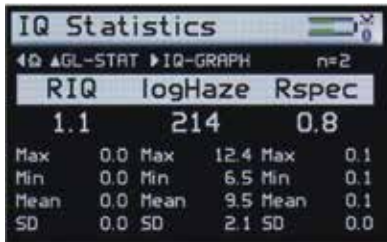
## Measurement

Fast measurement of all parameters. Full on-board statistics with graphical trend analysis and reporting.



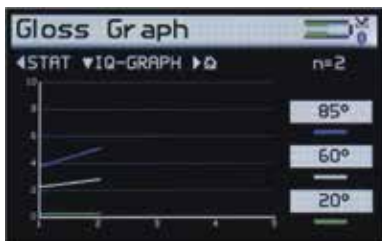
### Measurement

Simultaneous measurement of all parameters, results are date and time stamped.



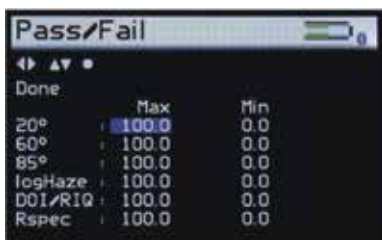
### Statistics

Displays full statistics for the number of readings in the current batch.



### Graphs

Graphical reporting for quick trend analysis.



### Parameters

Pass / fail parameters can be defined for instant identification of non-conformances.



## Goniophotometric Curves

Different types of surface textures produce identifiably shaped reflectance profile. This goniophotometric data can be downloaded to PC for further analysis and comparison via the USB cable or Bluetooth Data Widget.

### Easy Batching

User definable batch names and batch sizes for quicker and more efficient reporting.

### Rapid data transfer

Software-free data transfer. USB connection to PC instantly recognises the device as a drive location which facilitates the quick transfer of files using Windows Explorer or similar.

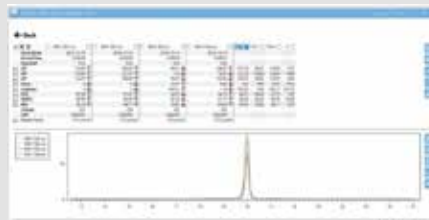
### Power

20,000+ readings per charge. The instrument is rechargeable via USB/PC or mains

### Direct data input via Bluetooth

Instantly transmit measured readings directly to programs such as MS Excel on your PC / tablet to greatly simplify the reporting process.

	1	2	3	4	5	6
DATE	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012
TIME	11:52:20	11:52:25	11:52:30	11:52:36	11:52:41	11:52:47
20°	87.2	87.3	87.1	87.1	87.2	87.2
60°	92.6	92.6	92.6	92.6	92.6	92.5
85°	98.1	98.1	98	98.1	98	98
HAZE	0	0	0	0	0	0
LogHaze	0	0.6	0	0	0.6	0.1
DOI/RIQ*	99.8	99.8	99.8	99.8	99.8	99.8
RSPEC	87.2	87.3	87.1	87.1	87.2	87.2
CDiode	250	250	250	250	250	250
Calibrated	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012
Serviced	12/09/2012	12/09/2012	12/09/2012	12/09/2012	12/09/2012	12/09/2012
S/N	1002322	1002322	1002322	1002322	1002322	1002322



### Statistical analysis via Novo-Gloss Multi Gauge Software

This software provides an easy means to measure, import and compare data and export the measurements into several other file formats, e.g. PDF, Excel® or CSV.

# Applications

The DOI, Haze and RSPEC values measured by the Rhopoint IQ-S allow the user to quantify and control the surface textures that reduce the perceived quality of manufactured products.

The meter is widely used throughout many industries to assess the reflective qualities of products, in particular automotive exteriors and interiors.



Automotive



Printed Cartons



Printing Ink



Powder Coating



Automotive Re-finish



Yacht Manufacturers



Paints and Coatings



Smart Devices, PC & Laptop Covers



Car Detailing



Aerospace



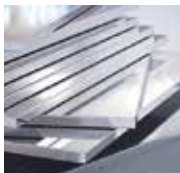
Plastics Industry



Textile



Furniture



Metal Polishers



Polished Stone



Polished Stone



# Specifications

## 20° Gloss

Range (GU)	0-100	100-2000
Repeatability	0.2 (GU)	0.2%
Reproducibility	0.5 (GU)	0.5%
Resolution (GU)	0.1	
Measurement Area	6.0 x 6.4 (mm)	

## 60° Gloss

Range (GU)	0-10	10-100	100-1000
Repeatability	0.1 (GU)	0.2 (GU)	0.2%
Reproducibility	0.2 (GU)	0.5 (GU)	0.5%
Resolution (GU)	0.1		
Measurement Area	9.0 x 13.5mm		

## 85° Gloss

Range (GU)	0-100	100-199
Repeatability	0.2 (GU)	0.2%
Resolution (GU)	0.1	
Measurement Area	4.4 x 44.0 (mm)	

## Gloss Standards\*

ISO 2813	ASTM D523	ISO 7668
ASTM D2457	DIN 67530	JIS Z 8741

## Haze

Range (Log HU)	0-500
Repeatability (Log HU)	1
Reproducibility (Log HU)	10
Resolution	0.1
Measurement Area (mm)	6.0 x 6.4
Standards	ASTM E430 ASTM D4039

	RSPEC	DOI	RIQ
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Range	0-2000 GU	0-100	0-100
Repeatability	0.2%	0.2	0.2
Reproducibility	0.5%	0.5	0.5
Resolution	0.1	0.1	0.1
Measurement Area	6.0 x 6.4 (mm)		
Standards	Rhpoint	ASTM E430	Rhpoint

\*Verified performance at 20°



# Specifications

## Instrument information

<b>Battery Type</b>	Rechargeable lithium ion
<b>Operation (hours)</b>	17+
<b>Readings per charge</b>	20,000+
<b>Memory</b>	8MB, 999 readings
<b>Operating Temperature</b>	15-40°C (60-104°F)
<b>Operating Humidity</b>	Up to 85%, non condensing
<b>Commodity Code</b>	9027 5000

## Dimensions & Weights

<b>Dimensions</b>	65mm x 140mm x 50mm (H x W x D)
<b>Weight</b>	390g
<b>Packed weight</b>	1.6kg
<b>Packed dimensions</b>	110mm x 280mm x 220mm (H x W x D)

## Included Accessories

<b>Certifications</b>	<ul style="list-style-type: none"> <li>• ISO 17025 / UKAS calibration certificate</li> <li>• Values at 20/60/85 = 100 GU</li> <li>• As recommended in ISO 2813 / ASTM D523</li> </ul>
<b>Cables</b>	<ul style="list-style-type: none"> <li>• USB data &amp; mains cable</li> <li>• Wrist strap</li> </ul>
<b>USB Contains:</b>	<ul style="list-style-type: none"> <li>• Instruction manual</li> <li>• Bluetooth data app</li> <li>• Example Excel spreadsheets</li> </ul>
<b>Novo-Gloss Multi Gauge software</b>	
<b>Instructional videos</b>	



Also available  
**Rhospoint IQ Flex 20 S**  
For gloss, haze and DOI  
measurement of curved  
or small surfaces.

**Free extended warranty:** Please register your product at [www.rhospointinstruments.com/instrument-registration](http://www.rhospointinstruments.com/instrument-registration)

**Free light source warranty:** Guaranteed for the life of the instrument

**Calibration and service:** Fast and economical service via our global network of accredited Calibration and service centres. For detailed information, please visit [www.rhospointinstruments.com/support](http://www.rhospointinstruments.com/support)



**Languages:**

