

MURAKAMI COLOR RESEARCH LABORATORY
3-11-3 Kachidoki, Chuo-Ku, Tokyo, 104-0054 Japan
TEL: +81-3-3532-3011 FAX: +81-3-3532-2056

HAZE METER

HM-150



HM-65W



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The HM-150 and HM-65W are designed to measure total light transmittance, diffuse transmittance, and haze. They are ideally suited to make these measurements for light transmissible materials such as plastics, films, glass and liquid. Employing a double-beam system, highly accurate and repeatable transmittance and haze measurements can be realized.

Internal switchable filters tune the light source to the spectral characteristics of CIE standard photometric observer and CIE standard illuminant D65, but also the combination including CIE standard illuminant A. A personal computer is used for interface, calculation, and control. Several useful functions, such as average calculation and output by printer, are available.

The HM-150 and HM-65W conform to most national and international haze standards, including:

- ISO 14782 *Determination of haze for transparent materials*
- ISO 13468-1 *Determination of the total luminous transmittance of transparent materials*
- ASTM D1003 *Haze and Luminous Transmittance of Transparent Plastics* (D1003 is approximated)

Specifications

	HM-150	HM-65W
Measuring object	Light transmissive materials such as plastics, films, glass and liquid	Light transmissive materials such as plastics, films, glass and liquid
Sample size	Sheets and the like: 50×50mm up to 150×180mm	Sheets and the like-:up to 10mm diameter
Measuring Light flux	Incident port: 20mm dia. Light Flux: Dia.14mm	Incident port: 9mm dia. Light Flux: 6mm dia.
Resolution	0.1% in full scale	0.1% in full scale
Measurement Item	Total light transmittance {Tt(τt)}, Diffuse transmittance {Td(τd)} Haze(haze value) and Parallel light transmittance {Tp(τp)}	Total light transmittance {Tt(τt)}, Diffuse transmittance {Td(τd)} Haze(haze value) and Parallel light transmittance {Tp(τp)}
Optical System	Conforms to ISO14782, JIS K7136 for haze measurement ISO13468-1, JIS K 7361 for Total Transmittance (Approximating to ASTM D1003&JIS7105)	Conforms to ISO14782, JIS K7136 for haze measurement ISO13468-1, JIS K 7361 for Total Transmittance (Approximating to ASTM D1003&JIS7105)
Spectral Characteristics	CIE standard photometric observer and CIE standard Illuminant D65 as well as the combination including CIE standard illuminant A.	CIE standard photometric observer and CIE standard Illuminant D65 as well as the combination including CIE standard illuminant A.
	HM-150	HM-65W
Light Source	Halogen lamp with a mirror, 12V/50W	Halogen lamp with a mirror, 12V/50W

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	Lamp Life 2000 hrs. Nominal	Lamp Life 2000 hrs. Nominal
Filter	Switchable between A and D65	Switchable between A and D65
Detector	Silicone photodiode	Silicone photodiode
Integrating Sphere	150mm diameter with BaSO4 coating.	65mm diameter with BaSO4 coating.
Reading Accuracy	±0.1%	±0.1%
Computer Interface	RS-232C	RS-232C
Dimensions	L 230×W 560×H220mm	L 230×W 560×H220mm
Weight	Approximately 13 kg	Approximately 13 kg
Power Requirement	100V±10V AC, 50/60Hz	100V±10V AC, 50/60Hz
Power Consumption	Approx.150VA	Approx.150VA

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