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Precision Optical Measurement
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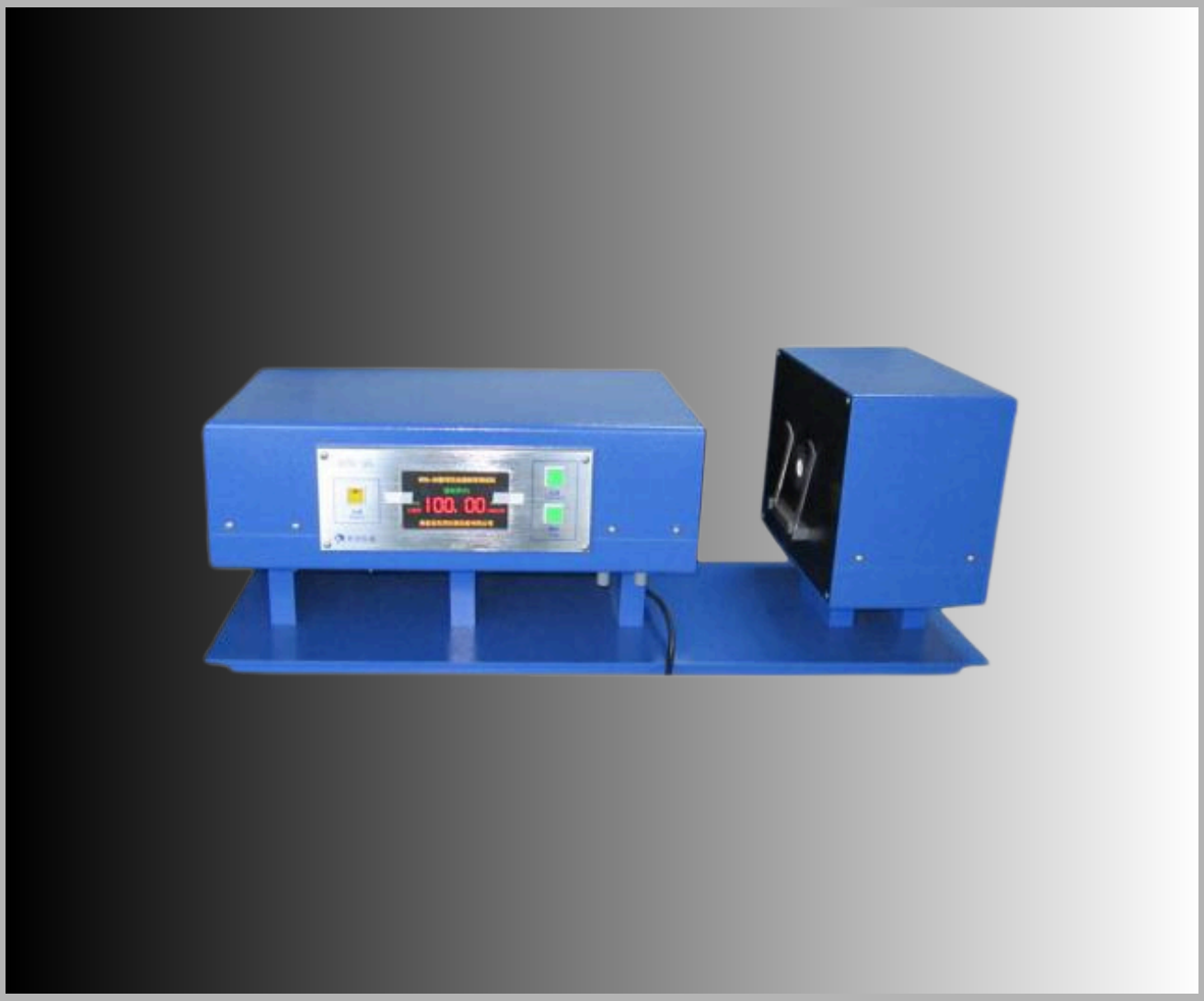

BTR 1-S

OPTICAL TRANSMISSION & HAZE MEASUREMENT SYSTEM

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Product Overview

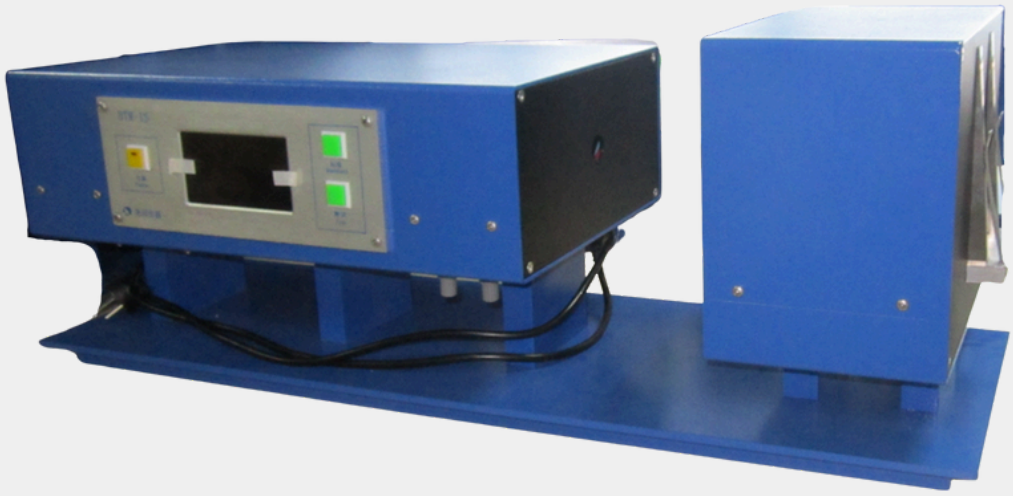
The BTR-1S Visible Light Transmittance, Reflectance and Haze Measurement Instrument is a specialized testing system designed to evaluate the optical performance of architectural and automotive glass.
Utilizing a standardized light source together with an integrating sphere measurement structure, the instrument enables stable, accurate, and quantitative testing of glass transmittance, reflectance, and haze.

Operating Principle

The instrument generates a stable light source using a tungsten halogen lamp. The light is collimated through an optical tube to form a parallel beam, which passes through the glass sample before entering the integrating sphere.
The system calculates the ratio of luminous flux before and after the sample and applies spectral correction to obtain measurement results that comply with relevant testing standards.

System Configuration

The system is composed of an optical measurement module, sample testing platform, control and data processing unit, and dedicated software, forming a complete testing solution for stable measurement of visible light transmittance, reflectance, and haze in glass.



Main Technical Specifications

Power Supply	AC 220V ±1V, 5A
Light Source	D65 or CIE Standard Illuminant A
Spectral Range	380–780 nm
Measurement Range	0–100%
Accuracy	0.01%
Repeatability	≤ 0.2%
Measurement Deviation	≤ 0.5%
Angle Between Optical Axis and Sample Normal	＜ 5°
Display	4.3-inch TFT LCD
Test Speed	1 s
Communication Interface	RS232（DB9）
Warm-up Time	10–15 minutes

Operating Environment

Ambient Temperature	10 ℃ – 40 ℃
Relative Humidity	≤ 98%（at 40 ℃）
Vibration Condition	No significant vibration.
Lighting Conditions	Avoid strong ambient light interference. Operation in a dim or controlled lighting environment is recommended.

Applications

- Architectural glass
- Float glass
- Insulating glass
- Tempered glass
- Laminated Glass
- Coated glass
- Automotive glass

Technical Support & Enquiries

For technical enquiries, installation support, or operational assistance, please contact:

Mobile: +44 7377366178 /+44 7939992902
Contact Person: Lu Lin
Email: Admin@luari.uk