
Pharmaceutical Solution Colorimeter

T-COL-001 - Measures solution colour and colour difference by spectral analysis, with software comparison against a Chinese Pharmacopoeia reference-colour database.



Key features

- 400-700 nm spectral measurement at 10 nm intervals
- D65 and C illuminants; selectable 2°/10° observer
- Software displays measurement data and colour charts
- Permission management, operation logs and PDF report generation

Core specifications

Wavelength range	400-700 nm
Wavelength interval	10 nm
Minimum sample volume	1.5 mL
Measurement aperture	≈10 mm
Measurement time / interval	0.5 s / 2 s
Repeatability	±2%
Illumination geometry	0/0
Illuminants	D65, C
Observer angle	2° / 10°
Sensor	Dual-path array sensor
Pure-water X/Y/Z absolute error	≤0.1
Stability over 6 hours	≤2%
Linearity, reference colours 0.5-10	ΔE*ab: r >0.999
Colour resolution	1/10 of the difference between adjacent reference-colour numbers
Data interface	USB ↔ RS232
Operating temperature	0-40 °C
Relative humidity	≤80%, non-condensing
Power supply	220 V, 50 Hz
Instrument dimensions	475 ×340 ×150 mm
Approximate weight	7 kg

Configuration and ordering

Standard Configuration

Power cable, data cable, laptop with colour software and Chinese Pharmacopoeia reference-colour database, licence dongle, black calibration plate, 1.5 mL quartz cuvette with 10 mm optical path, and microcuvette holder.

Optional Accessories

European Pharmacopoeia and USP reference-colour databases are paid options; confirm edition and licence scope.

Selection / Ordering Information

Specify solution type, reference standard and edition, database licences and report needs. Confirm computer/software language, electrical supply and accessory quantities.

Operation logs and permission management are documented; validated audit-trail compliance, electronic signatures and certification are not established. The software database edition must be confirmed.