

Spectroquant[®] Prove 300

Technical data sheet

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Spectroquant® Prove 300	
Measuring technology	Spectrophotometer with reference beam technology
Wavelength range	190 – 1,100 nm
Lamp type	Xenon flash lamp
Measuring modes	Concentration, absorbance, transmission, multi wavelengths, spectra and kinetics in absorbance and transmission mode
Spectral bandwidth	4 nm
Wavelength resolution	1 nm (scan 0.1 nm)
Wavelength reproducibility	± 0.2 nm
Wavelength accuracy	± 1 nm
Stray light	≤ 0.1 % transmission at 340 nm; ≤ 1 % transmission at 198 nm
Photometric range	± 3.0 Abs
Absorbance resolution	0.001 Abs
Absorbance reproducibility	± 0.003 absorbance at 1 absorbance between 200 nm and 900 nm
Absorbance accuracy	at 300 – 900 nm 1 absorbance: ± 0.005 absorbance 2 absorbance: ± 0.005 absorbance 2.5 absorbance: ± 0.008 absorbance
Scan	Limits freely selectable within the wavelength range Increment: 0.1/1/5 nm Recording duration for the complete wavelength range: < 7 min
Smart Screen Display	Resistive touch screen
Live ID barcode	Automatic 2-D barcode reading system for all Spectroquant® cell and reagent tests Barcode contains lot, expiry, and calibration data. Data stored with each measurement.
Cell size	16 mm round cells, 10, 20 and 50 mm rectangular cells with automatic recognition
Cell holder	Removable for easy cleaning
Methods	Programmed methods of all Spectroquant® cell and reagent tests, additional user defined methods: 99 concentration mode, 20 kinetic mode, 20 wavelength scans
Applications	Free preprogrammed applications: bromate, brewery packages (MEBAK/EBC methods), sugar (ICUMSA), oil (DOBI, olive oil)
Ambient light protection	Measurement with open shaft possible due to proprietary solution (patent pending)
AQA prime	Individual settings for all methods in AQA 1 mode: instrument check using PhotoCheck and/or Certipur® standards AQA 2 mode: system check using CombiCheck or CRM standard solutions
Monitoring functions	Instrument supported pipette check and sample matrix check
Ad hoc measurement	Direct access to absorption/transmission, kinetic and spectrum measurement
Software and method update	Free updates on Merck Millipore website via internet and USB stick
Communication interfaces	USB: 2 x USB-A (for printer, USB memory devices, keyboard or bar code reader), 1 x USB-B Ethernet: LAN connection
Data storage	2,000 single measured values from the measuring modes concentration, absorbance / % transmission and multi wavelengths. 20 measurement result records of spectra and kinetics methods each.
Languages	English, German, Spanish, French, Italian, Brazilian-Portuguese, Chinese (simplified and traditional), Japanese, Russian, Bulgarian, Czech, Danish, Dutch, Greek, Hungarian, Indonesian, Malay, Mazedonian, Norwegian, Polish, Romanian, Serbian, Slovenian, Swedish, Thai, Turkish, Vietnamese
Protection class	IP 31 for optics and electronics
Power supply	Power supply with 3 cables (1.2 m long) fitting US, EU and UK plugs Total cable length 3 m (1.8 and 1.2 m)
Power requirements	100 V – 230 V, 50 – 60 Hz
Power consumption	Standard working condition: 15 W; power save mode: 8.4 W
Temperature	Operation: 10 – 35°C; storage: -20°C to +60°C for 24 hours
Allowable relative humidity	Operation: 20 – 80 % rH, storage in ambient relative humidity conditions of 20 % to 95 %. Non-condensing
Dimensions	416 x 276 x 237 mm (width x depth x height)
Weight	approx. 6.8 kg
Warranty	12 months
EMC	Directive 2004/108/EC, EN IEC61326-1, IEC61326-1
Instrument safety	EN 61010-1, UL IEC61010-1