

## **Technical Data Sheet**

## Spectroquant<sup>®</sup> Prove Spectrophotometer 100 plus 1.73026

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.



1.73026.0001 - Spectroquant <sup>®</sup>	•
leasuring technology	Spectrophotometer with reference beam technology
Wavelength range	320 – 1,100 nm
.amp type	Tungsten halogen lamp
leasuring modes	Concentration, absorbance, transmission, multi wavelengths, spectra and kinetics in absorbance and transmission mode
pectral bandwidth	4 nm
Vavelength resolution	1 nm (scan 0.1 nm)
Vavelength reproducibility	± 0.2 nm
Vavelength accuracy	± 1 nm
Stray light	$\leq$ 0.1% transmission at 340 nm
hotometric range	± 3.0 Abs
Absorbance resolution	0.001 Abs
Absorbance reproducibility	$\pm$ 0.003 absorbance at 1 absorbance between 320 nm and 900 nm
Absorbance accuracy	at 340 - 900 nm 1 absorbance: ± 0.005 absorbance 2 absorbance: ± 0.005 absorbance 2.5 absorbance: ± 0.010 absorbance
Scan	Limits freely selectable within the wavelength range Increment: 0.1/1/5 nm Scan speed: up to 170 nm/min (depending on the increment)
Smart Screen Dicplay	Display p-cap glass touch screen
Smart Screen Display .ive ID barcode	Automatic 2-D barcode reading system for all Spectroquant <sup>®</sup> 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
Minimum filling volumes	16-mm round cells: 4 ml 10-mm rectangular cells (Standard): 2 ml (Semimicro): 1 ml 20-mm rectangular cells (Standard): 4 ml (Semimicro): 2 ml 50-mm rectangular cells (Standard): 8 ml (Semimicro): 4 ml
Cell holder	Removable for easy cleaning
1ethods	Programmed methods of all Spectroquant® cell and reagent tests, additional user-defined methods: 99 concentration mode, 20 kinetic mode, 20 wavelength scans
Applications	Free pre-programmed 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 AQA1 mode: instrument check using PhotoCheck and/or Certipur® standards AQA2 mode: system check using CombiCheck or standard solutions
Monitoring functions	Instrument-supported pipette check and sample matrix check
Ad hoc measurement	Direct access to absorbance/transmission, kinetic and spectrum measurement
Software and method update	Free updates on our website (www.sigmaaldrich.com/photometer-service) via internet and USB stick
Communication interfaces	USB: 2 × USB-A (for printer, USB memory devices, keyboard or bar code reader), 1 × USB-mini-B Ethernet: LAN connection
Data storage	7,000 single measured values from the measuring modes concentration, absorbance/% transmissior and multi wavelengths. 500 measurement result records of spectra, kinetics, AQA1, and AQA2 methods each
anguages	English, German, Spanish, French, Italian, Brazilian-Portuguese, Chinese (simplified and traditional), Japanese, Russian, Bulgarian, Czech, Danish, Dutch, Greek, Hungarian, Indonesian, Malay, Macedo- nian, Norwegian, Polish, Romanian, Serbian, Slovene, Swedish, Thai, Turkish, Vietnamese, Korean
Protection class	IP 31 for optics and electronics
ower supply	Power supply with 4 cables (1.2 m long) fitting US, EU, UK, and China plugs Total cable length 3 m (1.8 and 1.2 m)
ower requirements	100 V – 230 V, 50 – 60 Hz
ower consumption	Standard working condition: 12 W; power save mode: 8.8 W In regular measurement state: 55.2 W
emperature	Operation: 10 – 35 °C; storage: -20 °C to +60 °C for 24 hours
llowable relative humidity	Operation: 20 – 80% rH, storage in ambient relative humidity conditions of 20% to 95% Non-condensing
	418 $\times$ 278 $\times$ 169 mm (width $\times$ depth $\times$ height)
Dimensions	···· ···· ····· (······ ····· ·········
	approx. 6.8 kg
Veight	
Dimensions Neight Narranty EMC	approx. 6.8 kg

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