

Quantech™ Fluorometer

A Family of Five High Sensitivity Filter Fluorometers for Specific Needs!

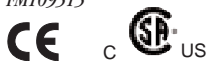
- Quantitation with a single standard or multiple standards
- Simple to use
- Automatic gain setting
- ★ 24 Month Warranty

Product Description

- Sensitivity Levels:
25 pg/ml dsDNA in 2 ml assay volume (PicoGreen®)
30 ppt QSO4 in square cuvettes, 20 ppt FITC in square cuvettes.
- Large, versatile sample compartment accommodates a wide variety of cells or cuvettes.
- Ergonomic, low profile design facilitates quantitative analysis of multiple samples.



FM109515



PRODUCT SPECIFICATIONS

Selection Guide

Base Unit

The Quantech Base Unit is a single-tube, high-sensitivity laboratory fluorometer suitable for most analysis. It includes on-board diagnostics, filter guide and 30-day memory protection for standard curves.

Infra Red

Replaces the photo-multiplier of the Base Unit with an even more sensitive red-sensitive photo multiplier. Suitable for chlorophyll, porphyrin and environmental analysis.

Wide Band

Adds ultraviolet capability with the addition of a mercury line source.

Chromatography Detector

Adds an 8 ul quartz flow cell and analog 0-1 volt output for those monitoring HPLC eluents or low pressure chromatography.

Protein/Aromatic

Replaces mercury-line source of the Wide Band with mercury phosphor source for those monitoring protein concentration or aromatics without derivatation at 280 nm.

Model #	Volts	Light Source	Excitation	Detector	Emission	Sample Compartment
FM109515 Base Unit	120	Quartz Halogen	340-750	Visible PMT	300-650	Round/SQ Cuvettes
FM109510-33 Base Unit	230	Quartz Halogen	340-750	Visible PMT	300-650	Round/SQ Cuvettes
FM109525 Infra Red	120	Quartz Halogen	340-750	Red Sensitive PMT	185-870	Round/SQ Cuvettes
FM109520-33 Infra Red	230	Quartz Halogen	340-750	Red Sensitive PMT	185-870	Round/SQ Cuvettes
FM109535 Wide Band	120	Quartz Halogen Mercury Line Lamp	254-750	Red Sensitive PMT	185-870	Round/SQ Cuvettes
FM109530-33 Wide Band	230	Quartz Halogen Mercury Line Lamp	254-750	Red Sensitive PMT	185-870	Round/SQ Cuvettes
FM109545 Chromatography Detector	120	Quartz Halogen Mercury Line Lamp	254-750	Red Sensitive PMT	185-870	8 ul Quartz Flow Cell
FM109540-33 Chromatography Detector	230	Quartz Halogen Mercury Line Lamp	254-750	Red Sensitive PMT	185-870	8 ul Quartz Flow Cell
FM109555 Protein/Aromatic	120	Quartz Halogen Mercury Phosphor	265-300 340-750	Red Sensitive PMT	185-870	Round/SQ Cuvettes

All models measure (W) 11.5 in (29.2 cm) x (H) 6.7 in (17 cm) x (D) 15.5 in (39.4 cm). Shipping weights for Base Model and Extended Range models are 10.9 kg (24 lb.) All other models weigh 12.7 kg (28 lb.)

Protein/Aromatic units include 280NB and 340NB filters, all other units include NB360 and SC415 filters.

ORDERING INFORMATION

Model #	Electrical 50/60 Hz Volts	Excitation Range	Emission Range
FM109515 ¹	120 V	340-750 nm	300-650 nm
FM109525 ¹	120 V	340-750 nm	185-870 nm
FM109535 ¹	120 V	254-750 nm*	185-870 nm
FM109545 ¹	120 V	254-750 nm*	185-870 nm
FM109555 ¹	120 V	254-750 nm**	185-870 nm
FM109510-33 ^{1,2}	230 V	340-750 nm	300-650 nm

Model #	Electrical 50/60 Hz Volts	Excitation Range	Emission Range
FM109520-33 ^{1,2}	230 V	340-750 nm	185-870 nm
FM109530-33 ^{1,2}	230 V	254-750 nm*	185-870 nm
FM109540-33 ²	230 V	254-750 nm*	185-870 nm

*UV wavelengths provided by Mercury Line Lamp: 254, 297, 313, 360 nm

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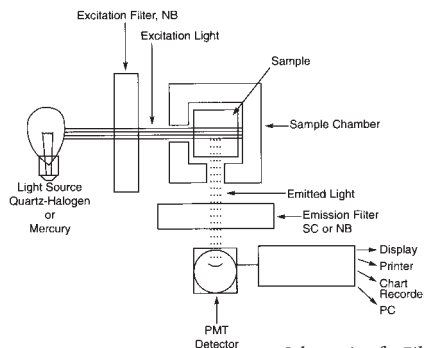
¹ CSA/NRTL

² CE

Quantech™ Accessories

Operation

- Navigation through menu-driven software guides operator through setting up standard curves for quantitative analysis.
- Unknown sample concentrations are calculated based upon linear regression analysis of standard curve data.
- Store up to nine multi-point (2 to 9 point) standard curves.
- Automatic gain adjustment optimizes linear range.
- RS-232 serial interface for data output to printer or computer.



Schematic of a Filter Fluorometer

Filter Selection

Narrow Band (NB) filters may be used as Excitation or Emission Filters. The Sharp Cut (SC) filters are to be used as Emission Filters only. The number following NB is the center wavelength of the filter in nanometers (nm). With the exception of the NB360 filter and the NB430 filter which have a 40 nm and 90 nm bandpass, respectively, the narrow band filters (NB) listed have a 10 nm nominal bandpass. The number following SC is the wavelength in nm at which the filter has a transmittance of 37%. Sharp cut filters typically have a transmittance greater than 80% at wavelengths that are at least 10 nm greater than the SC number.

Configuration	Single Beam Filter Fluorometer
Display	2 x 24 LCD
Bandwidth	5-200 nm (depends on filters selected)
Wavelength Accuracy	1.5-10 nm (depends on filters selected)
Sensitivity	25 pg/ml dsDNA; w/ PicoGreen® Reagent, 30 ppt QSO4, 20 ppt FITC, 30 pg/ul ATP Luminescence
Concentration Range	0.00-9999.99 (ppt, ppm, ppb, ug/dl, ug/ml, ng/ml, pg/ml, ng/ul)
Gain and Range Select	Automatic, 6 Orders
Menu Driven Software	Std. Curve Storage, 2 to 9 point Std. Curves, Store up to 9 Curves, Blank/Zero Set, Raw Fluorescence, Discrete Signal Averaging, Diagnostic Menus, Injector Pump Option, Filter Selection Help Guide, Diagnostics/Status Menus
Languages (Selectable)	English, Spanish, French, German
Data Output	RS-232 Serial Interface for Printer or Computer (ASCII format, 9 pin connector), Optional Analog (0-1 VDC), with RCA connector on Chromatography Detector.
Sample Holders	12.5 x 12.5 x 45 mm sq. cuvettes (adj. z dim. 8.5 or 15mm), 12 x 75 mm round, Flow Cell Option
Operating Temp. Range	20° to 38° C
Regulatory	CSA/NRTL/C; -33 models are CE marked
Lamp Life	Quartz Halogen Lamp (6 V, 20 W = 10,000 hours) Mercury Line Lamp (12 V, 0.4 A = 2,000 hours) Mercury Phosphor (12 V, 0.4 A = 1000 hours)

QSO4 = Quinine Sulfate Dihydrate, NIST SRM 936

FITC = Fluorescein Isothiocyanate

ACCESSORIES

Excitation and Emission Filters	Description
LE1095X1	NB254 Filter
LE1095X34	NB280 Filter
LE1095X3	NB297 Filter
LE1095X4	NB313 Filter
LE1095X33	NB340 Filter
LE1095X30	NB360 Filter
LE1095X6	NB365 Filter
LE1095X7	NB390 Filter
LE1095X8	NB405 Filter
LE1095X9	NB420 Filter
LE1095X31	NB430 Filter
LE1095X10	NB440 Filter
LE1095X11	NB450 Filter
LE1095X12	NB460 Filter
LE1095X13	NB490 Filter
LE1095X14	NB520 Filter
LE1095X15	NB540 Filter
LE1095X32	NB568 Filter
LE1095X16	NB590 Filter

Excitation and Emission Filters	Description
LE1095X17	NB680 Filter
LE1095X18	SC415 Filter
LE1095X19	SC430 Filter
LE1095X20	SC450 Filter
LE1095X21	SC475 Filter
LE1095X22	SC500 Filter
LE1095X23	SC515 Filter
LE1095X24	SC535 Filter
LE1095X25	SC550 Filter
LE1095X26	SC585 Filter
LE1095X27	SC605 Filter
LE1095X28	SC635 Filter
LE1095X29	SC665 Filter
Printers	
AY1095X1	Epson™ serial dot matrix printer with serial cable (120V)
AY1137X1	Epson serial dot matrix printer with serial cable (240V)
WHX18	RS-232 serial cable for computer connection