

2475 Multi- λ Fluorescence Detector

The Waters® 2475 Fluorescence Detector offers unsurpassed sensitivity for quantifying low concentrations of target compounds, whether naturally fluorescent or derivatized with a fluorescent tag. The 2475 Detector sets the standard for fluorescence method development with 3D and “on-the-fly” spectral scanning for determining the optimal emission and excitation wavelengths, with the ability to monitor up to four independent wavelength pairs.



OPERATING SPECIFICATIONS¹

Excitation wavelength range	200 to 890 nm
Emission wavelength range	210 to 900 nm
Bandwidth	20 nm
Wavelength accuracy	±3 nm (via patented ² Erbium filter)
Wavelength repeatability	±0.25 nm
Sensitivity	S/N, Raman peak of water ≥1000
Measurement range	0.001 to 100,000.000 emission units (default)
Filter time constant, single λ mode	0.1 to 5.0 s Hamming (default) 0.1 to 99.0 s (optional RC)
Filter time constant, dual λ mode	1.0 to 50.0 s Hamming (default) 1.0 to 99.0 s (optional RC)
Data channels	Up to four 2D channels or one 3D channel
Sampling rate	Up to 20 points/s in single (wavelength) mode 1 point/s in 3D mode

OPTICAL COMPONENT SPECIFICATIONS

Light source	Xenon lamp, 150 W Warranty: 2000-hour or 1-year (whichever comes first)
Flow cell design	Axially illuminated
Flow cell volume	13 μ L
Pressure limit	145 psi (10 bar)
Wetted materials	316 stainless steel, fused silica, Teflon

ELECTRICAL SPECIFICATIONS

Power requirements	100 to 240 VAC
Line frequency	50 to 60 Hz
Power consumption	280 VA (nominal)
Inputs	Four event inputs
Outputs	Four outputs (2 analog, 2 event)

PHYSICAL/ENVIRONMENTAL SPECIFICATIONS

Dimensions	Width: 34.3 cm (13.5 inches) Height: 20.8 cm (8.2 inches) Depth: 61.0 cm (24.0 inches)
Weight	18.1 kg (40.0 pounds)
Operating temperature range	4 to 40 °C (39 to 104 °F)
Operating humidity range	20% to 80%, non-condensing
Audible noise	<58 dBA

ORDERING INFORMATION

PART NUMBER

2475 Multi- λ Fluorescence Detector for Alliance® HPLC Systems
(analytical flow cell included)

186247500

2475 Multi- λ Fluorescence Detector for ACQUITY® Arc™ Systems
(low-dispersion analytical flow cell included)

176017009

Optional flow cells:

Analytical

13 μ L

205001034

Low-dispersion analytical

13 μ L

205001554

1. All performance specifications are measured following a warm-up period of one hour with ambient $\Delta T \leq \pm 2.0^\circ\text{C}$
2. U.S. Patent Numbers: 6,423,249 and 6,783,705

Waters

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