

## 2424 Evaporative Light Scattering Detector

The Waters® 2424 Evaporative Light Scattering (ELS) Detector with its compact and innovative design offers nearly universal detection of non-volatile and semi-volatile sample components. The 2424 ELS Detector is compatible with both isocratic and gradient separations with nebulizer options to cover a wide range of analytical and microbore flow rates. By adding the orthogonality of ELS to your detection strategy, you increase peak detection confidence across a wide application space.



### OPERATING SPECIFICATIONS

#### Nebulizers

High-flow rate (standard with detector)	300 to 3000 µL/min, (gas flow at 1.80 L/min at 25 psi)
Optional low-flow rate	50 to 500 µL/min, (gas flow at 0.77 L/min at 25 psi)

#### Temperature control

Nebulizer heater power	0% to 100%
Nebulizer cooler	On/off
Drift tube	Ambient +5.0 to 100.0 °C; 0.1 °C increments
Optional external column heater	Ambient +5.0 to 150.0 °C; 1.0 °C increments

Gas supply	Nitrogen, to be supplied at least 65 psi
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Gain setting	0 to 1000
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Filter time constant	Hamming, 0.0 to 5.0 s
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Sampling rate	Up to 80 points/s
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Measurement range	0.1 to 2000.0 LSU
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### OPTICAL COMPONENT SPECIFICATIONS

Optics	Heated optics bench (constant 50 °C)
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Light source	Tungsten halogen polychromatic front mounted, pre-aligned, user installable Warranty: 2000 hours or 1 year warranty (whichever comes first)
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Detector	Photomultiplier tube
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Scattering angle	60 degrees
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Wetted materials	316 stainless steel, aluminum, viton, PTFE, FEP, silicone rubber, polyethylene, polyurethane
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**ELECTRICAL SPECIFICATIONS**

Power requirements	100 to 240 VAC
Line frequency	50 to 60 Hz
Power consumption	200 VA (nominal)
Inputs	4 event inputs
Outputs	4 outputs (2 analog and 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	18.6 kg (41.0 pounds)
Operating humidity range	20% to 80%, non-condensing
Operating temperature range	4 to 30 °C (39 to 86 °F)
Audible noise	<58 dBA

**ORDERING INFORMATION****PART NUMBER**

2424 Evaporative Light Scattering Detector for Alliance® HPLC Systems (high-flow nebulizer included)	176242401
2424 Evaporative Light Scattering Detector for ACQUITY® Arc™ Systems (high-flow nebulizer included)	176017010
High-flow nebulizer	205001124
Low-flow nebulizer	205001125
Column Heating Compartment	WAT038040