

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 $\mu\text{L}/\text{min}$, (gas flow at 1.80 L/min at 25 psi)
Optional low-flow rate	50 to 500 $\mu\text{L}/\text{min}$, (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 to 100 $^{\circ}\text{C}$; 0.1 $^{\circ}\text{C}$ increments

Optional external column heater	Ambient +5 to 150 $^{\circ}\text{C}$; 1 $^{\circ}\text{C}$ increments
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Gas supply	Nitrogen, to be supplied at least 65 psi
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Filter time constant	Hamming, 0.0 to 5.0 s
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Measurement range	0.1 to 2000.0 LSU
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Sampling rate	Up to 80 points/s
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OPTICAL COMPONENT

Optics	Heated optics bench (constant 50 $^{\circ}\text{C}$)
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Light source	Tungsten halogen polychromatic front mounted, pre-aligned, user installable Warranty: 2000 hours or 1 year (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, and polyurethane
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ELECTRICAL

Power requirements	100 to 240 VAC
Line frequency	50 to 60 Hz
Power consumption	200 VA (nominal)
Inputs	Four event inputs
Outputs	Four outputs (2 analog and 2 event)

PHYSICAL/ENVIRONMENTAL

Dimensions	Width: 28.4 cm (11.2 inches)
	Height: 20.3 cm (8.0 inches)
	Depth: 52.1 cm (20.5 inches)
Weight	14.7 kg (32.5 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 ELSD with high-flow nebulizer and ICS CD	176002424
Low-flow nebulizer	205000459
Column heating compartment	WAT038040

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