

## SQ Detector 2

The Waters™ SQ Detector 2 is an advanced bench top single quadrupole mass detector designed for high performance LC-MS applications. With a wide range of ionization options including UniSpray™ and the Atmospheric Solids Analysis Probe (ASAP), the SQ Detector 2 is ideally suited to a wide range of qualitative and quantitative applications.

The system includes IntelliStart™ Technology, for automated optimization and status monitoring, ensuring that the highest quality of data is routinely available to all levels of operators.



### SYSTEM HARDWARE CAPABILITIES

API Sources and ionization modes	High performance ZSpray™ dual-orthogonal API sources: <ol style="list-style-type: none"> <li>1) Multimode source – ESI/APCI/ESCI™ (standard) NB – Dedicated APCI requires an additional probe (optional)</li> <li>2) Dedicated APCI (optional)</li> <li>3) UniSpray source (optional)</li> <li>4) Atmospheric Solids Analysis Probe (ASAP) (optional)</li> </ol> Vacuum isolation valve Tool free access to customer serviceable elements Plug and play probes De-clustering cone gas Software control of gas flows and heating elements
Ion source transfer optics	High efficiency stacked ring ion guide
Mass analyzer	Single high resolution quadrupole analyzer, plus pre-filter to maximize resolution and transmission while preventing contamination of the main analyzer
Detector	Low noise, off axis, long life photomultiplier detector
Vacuum system	Single, split-flow air-cooled vacuum turbomolecular pump evacuating the source and analyzer  One rotary backing pump
Dimensions	Width: 36.0 cm (14.2 in.) Height: 59.3 cm (23.4 in.) Depth: 74.1 cm (29.2 in.)
Regulatory approvals/marks	CE, CB, NRTL (CAN/US), RCM



## SYSTEM SOFTWARE CAPABILITIES

Software	Systems supported on MassLynx™ and Empower™
IntelliStart Technology	<p>System parameter checks and alerts</p> <p>Integrated sample/calibrant delivery system + programmable divert valve</p> <p>Automated mass calibration</p> <p>Automated sample tuning</p> <p>Automated SIR method development</p> <p>LC-MS system check – automated on-column performance test</p>
Automated SIR scheduling* (acquisition rate assignment)	<p>Dwell time, inter-channel delay time, and inter-scan delay time for individual channels in a multiple SIR experiment can be automatically assigned (using the Auto-Dwell feature) to ensure that the optimal number of SIR data points per chromatographic peak is acquired. The Auto-Dwell feature can dynamically optimize SIR cycle times to accommodate retention time windows that either partially or completely overlap. This greatly simplifies SIR method creation, irrespective of the number of compounds in a single assay, while at the same time ensuring the very best quantitative performance for every experiment</p>
Automated SIR scheduling* (acquisition window assignment)	<p>Multiple SIR experiments can be scheduled (manually or automatically using the Quanpedia™ database) using retention time windows to optimize the cycle time for each SIR channel monitored. If required, SIR retention time windows can overlap partially or completely. This ensures that SIR data acquisition rates will be optimal for the quantification of all analytes in a given assay</p>

## PERFORMANCE CAPABILITIES

Acquisition modes	<p>Full scan MS</p> <p>Selected Ion Recording (SIR)</p>
RADAR	<p>An information-rich acquisition approach that allows you to collect highly specific quantitative data for target compounds while providing the ability to visualize all other components</p>

*For more detailed instrument performance specifications, please contact your local sales representative.*

*\* Feature is only available on systems controlled by MassLynx.*

For patent information, please see [waters.com/patents](https://www.waters.com/patents)

# Waters™

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