

Thermo Scientific™ Orbitrap Eclipse™ Tribrid™ mass spectrometer

Specification

Orbitrap Eclipse Mass Spectrometer	
Mass Range	Standard mass range 50 to 2000 <i>m/z</i> ; mid-mass range 200 to 6000 <i>m/z</i> ; and optional HMR ⁿ mass range 500 to 8000 <i>m/z</i>
Type	Orbitrap LC-MS
Dynamic Range	> 5000 with a single OTMS spectrum
Mass Accuracy	Orbitrap mass accuracy: < 3 ppm RMS using external calibration < 1 ppm RMS using internal calibration
Polarity Switching	One Full Cycle in < 1.1 sec
Resolution	7500 to 500,000 (FWHM) at <i>m/z</i> 200
Scan Rates	OTMS ⁿ up to 40 Hz ITMS ⁿ up to 45 Hz

EASY nLC 1200 nanoLC	
Flow range (gradient)	20 to 2000 nL/min Recommended: 100 to 1000 nL/min
Flow while loading and equilibrating	Up to 25 µL/min
Pressure range	EASY-nLC 1200: 0 to 1200 bar
Retention time reproducibility (RT RSD)	Within the recommended flow range: 0.1 to 0.4% Outside the recommended flow range: typically better than 1%
Peak widths	Typically 3 to 5 seconds full width at half maximum (fwhm), using PepMap™ nano-bore columns as supplied at delivery
Carryover	Typically < 0,05% with Caffeine; < 0,5% with 100 fmol tryptic digest of BSA Conditions: Injection of 100 fmol tryptic digests of BSA on Pepmap columns as supplied at delivery and by using the standard wash procedure for the autosampler
Autosampler sample pickup volume range	0.1 to 18 µL with the standard 20 µL loop 0.1 to 48 µL with a 50 µL loop
Injection reproducibility (injection RSD)	0.2% at 5 µL pickup 3.0% at 0.1 µL pickup
Injection linearity	0.9985 at 0.5 to 10 µL injection volume