### **thermo**scientific





## Thermo Scientific<sup>™</sup> UltiMate<sup>™</sup> 3000 RSLCnano system with ProFlow<sup>™</sup> technology

The leader in precision performance for all your nano flow needs

Flow Meter Specification Summary	Classic	ProFlow
Flow measurement	Indirect	Direct
Flow rate range (nL/min)*	50–1000	50*–1500
Pressure range (bar/psi)	20-800 (300-11,600)	20-900** (300-13,000)
Retention time RSD (for 300 nL/min and 30 minute gradient)	<0.3%	<0.2%
Flow meter equilibration time from power-up to first injection	1 hour	30 minutes
Recommended system equilibration time to obtain ultimate reproducibility	24 hours	1 hour
Solvent calibration required	After solvent refresh/change	No***
Biocompatible	Yes	Yes
Chromatographic alignment Selected 35 minute window showing 4 overlays of the base peak chromatogram for repeated injections of human plasma samples on a 75 µm x 50 cm column with a 180 minute gradient comparing a Classic and a ProFlow flow meter	1.40E+00 1.00E+00 1.00E+00 4.00E+00 1.00E+	4.506.00 4.006.00 3.006.00 3.006.00 1.506.00 1.506.00 0.006.00 1.5

<sup>\*</sup> Recommended \*\* Maximum pressure of pump \*\*\* ProFlow is pre-calibrated with 4 default solvent types



Seamless LC-MS control with single software operation using Standard Instrument Integration (SII).

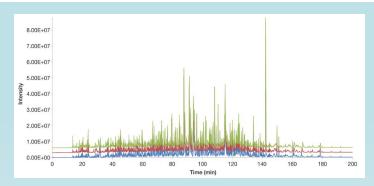
Unsurpassed chromatographic alignment.
Ideal for label-free quantification and
applications requiring long and shallow gradients.



# The UltiMate 3000 RSLCnano system with ProFlow technology—the ultimate proteomics powerhouse

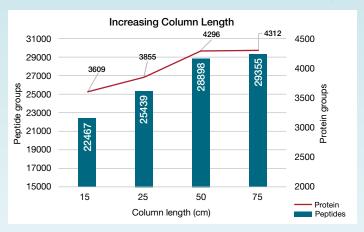
#### The ultimate in productivity and performance

- Enhanced reproducibility through uncompromised retention time precision for more confident identification and accurate quantification in large sample cohorts
- Fast and simple system start-up and operation for longer system uptimes and robust nano LC-MS data acquisition
- Seamless LC-MS control with single software operation using Standard Instrument Integration (SII)
- Full compatibility with all RSLCnano platforms: upgrade kits for all existing RSLCnanos available on request

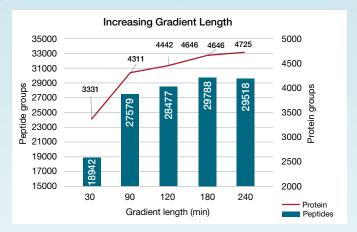


Three overlaid base peak chromatograms of a 200 minute separation showing repeated injection of 1  $\mu$ g of HeLa protein digest on a 75  $\mu$ m × 75 cm column.

## Increase your proteome coverage with RSLCnano ProFlow technology and our latest 75 cm Thermo Scientific<sup>™</sup> PepMap<sup>™</sup> columns—there's no place left to hide



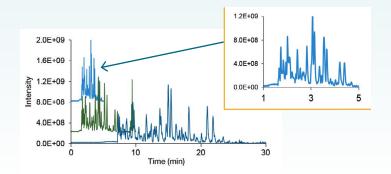
Number of peptide (blue bars) and protein (red line) groups identified from 1 µg HeLa protein digest on 75 µm I.D. columns of lengths ranging from 15–75 cm using a 90 minute gradient. A Thermo Scientific™ Q Exactive™ HF mass spectrometer operated in DDA mode was used to identify peptides and proteins at a 1% false discovery rate.



Number of peptide (blue bars) and protein (red line) groups identified from 1  $\mu$ g of HeLa protein digest on 75  $\mu$ m × 75 cm columns using different gradient lengths. A Q Exactive HF mass spectrometer operated in DDA mode was used to identify peptides and proteins at a 1% false discovery rate.

## From the most comprehensive "deep dive" analyses, to high-throughput applications—go pro with ProFlow

Wide nano flow—pressure footprint for better resolution with longer columns or UHPLC focused high-throughput applications. Base peak chromatograms for HeLa Cell lysate Digest measured using 5, 10 and 30 minute gradients at a flow rate of 1500 nL/min.



#### Find out more at www.thermofisher.com/nanoLCMS

