



Thermo Scientific
EASY-Spray Technology

Plug-and-spray with
State-of-the-art performance

Thermo
SCIENTIFIC

Effortless nano electrospray ionization

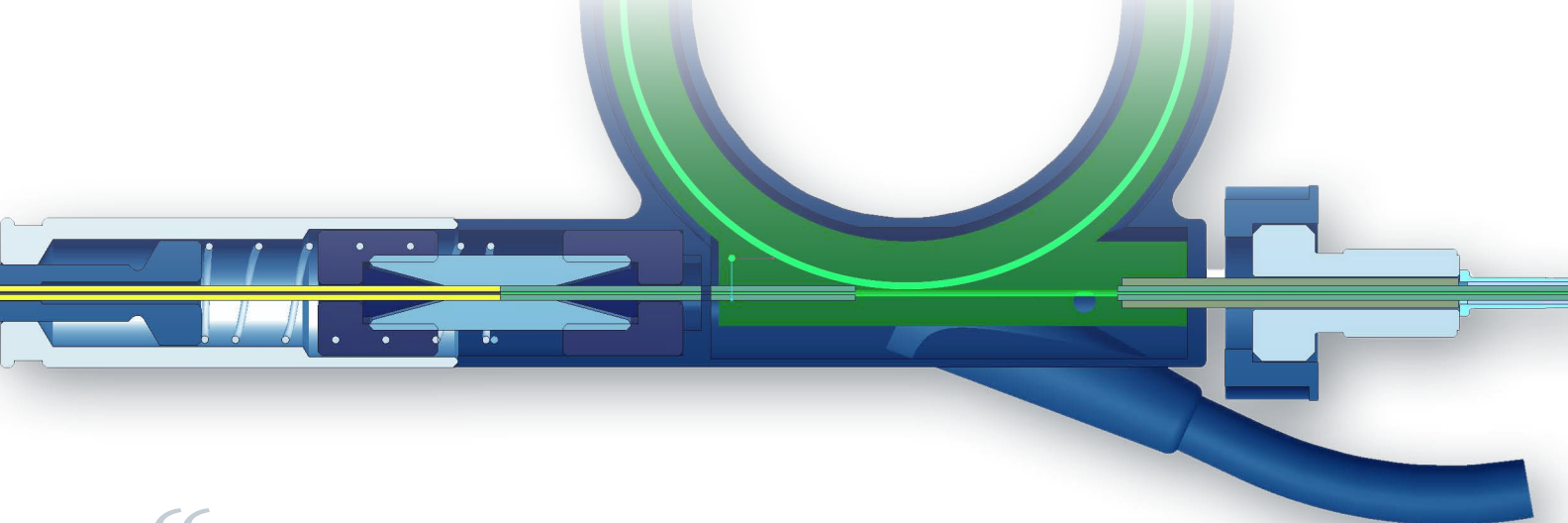
Integrated design



EASY-Spray source

Nano-flow LC-MS relies critically on perfect connections between several pieces of nano-bore tubing and high-voltage electrodes for the spray ionization. Thermo Scientific EASY-Spray technology provides an integrated and temperature-controlled column-emitter design using a single Thermo Scientific Dionex nanoViper connection between the LC and the EASY-Spray™ source to remove the most error-prone and difficult connections.

Plug-and-spray nano-electrospray ionization combined with industry-proven columns: the Thermo Scientific EASY-Spray.



“The optimization and reproducibility achievable by years of nanospray experience are built into the device. Heated UHPLC 50 cm column chromatography was not easy until now!”

—Paul Taylor, PhD Hospital for Sick Children, Toronto, Canada.

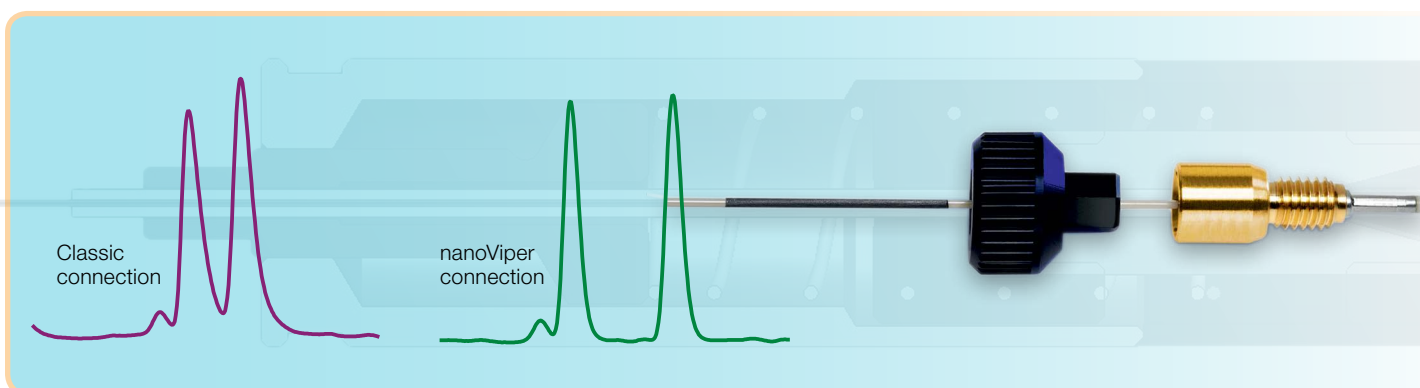
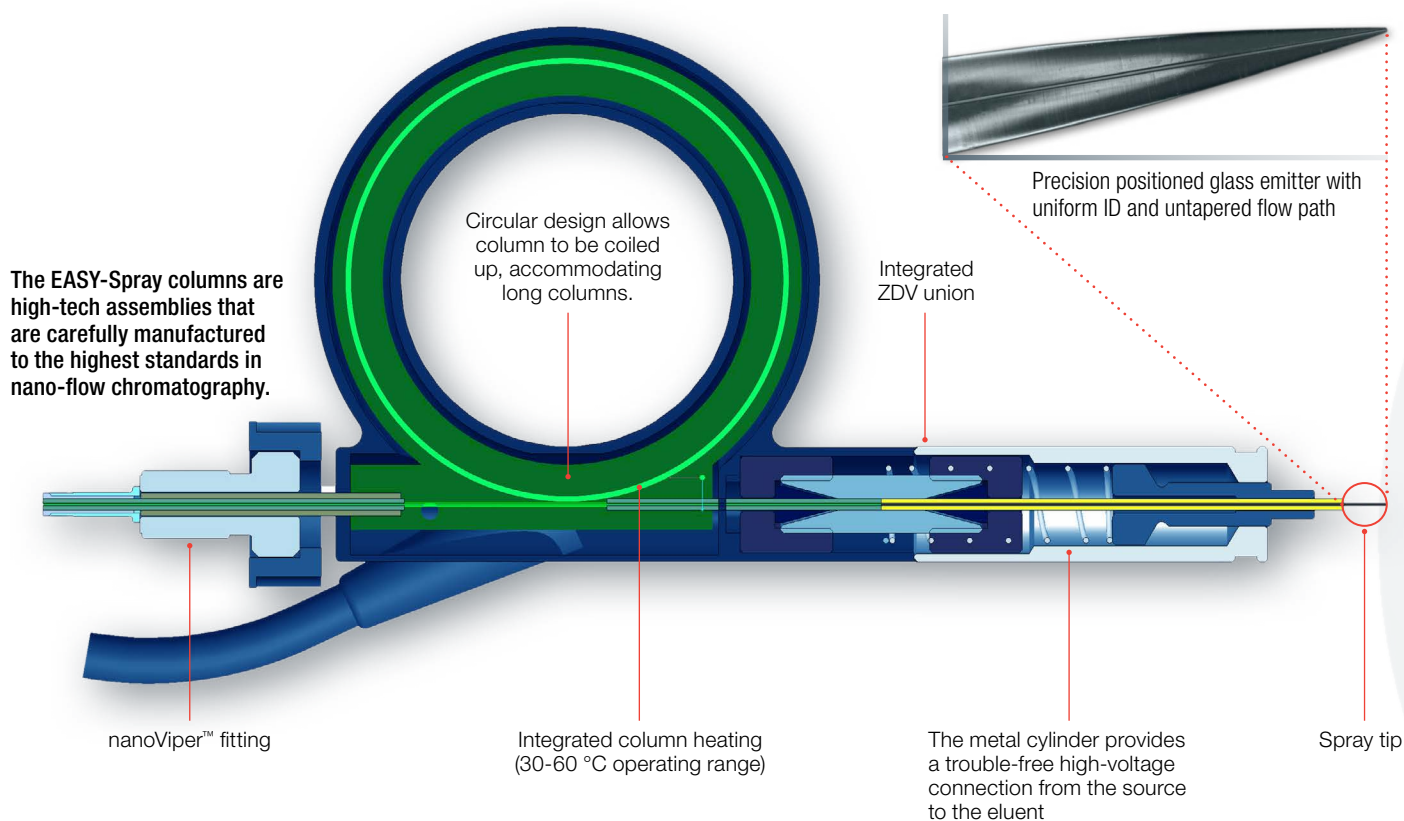
More than ever before

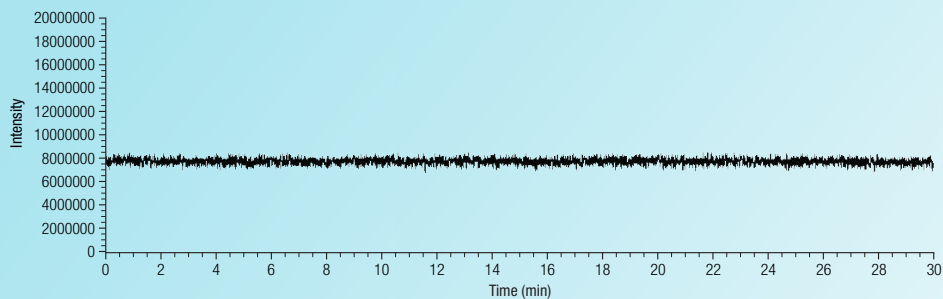
Thermo Scientific proteomics solutions are designed to give you more than ever before:

more throughput, more sensitivity, more separation power and more ease of use.



Plug-and-spray nano-electrospray ionization





Camera provides light and a convenient, magnified view of the emitter tip

Excellent Spray Stability

Sample: Singly charged polytyrosine peptide
MS: Thermo Scientific LTQ Velos
Source setup: EASY-Spray source direct infusion emitter

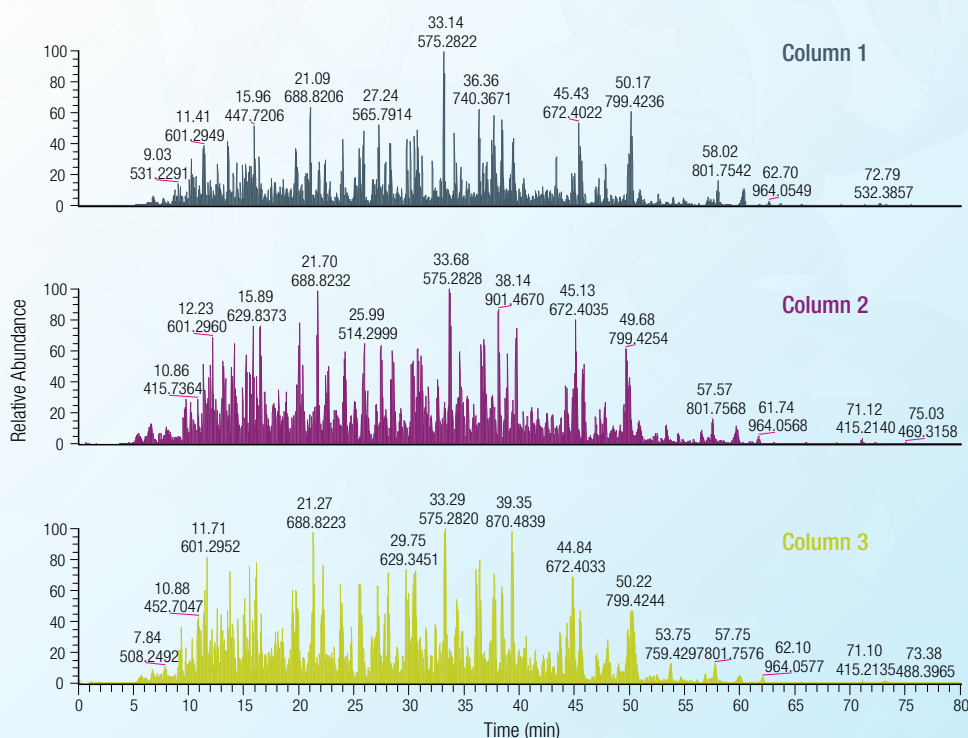
Simply press until it clicks into place

Forward/backward adjustment knob

Power and sensor cable for EASY-Spray columns

Temperature control display

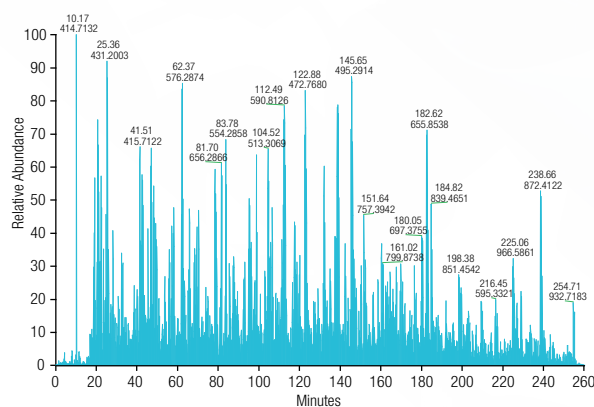




Excellent inter-column reproducibility

Column-to-column reproducibility is extremely important in proteomics, particularly when running big experiments or multi-site collaborations. The exacting assembly precision of EASY-Spray columns ensures class leading performance on these parameters.

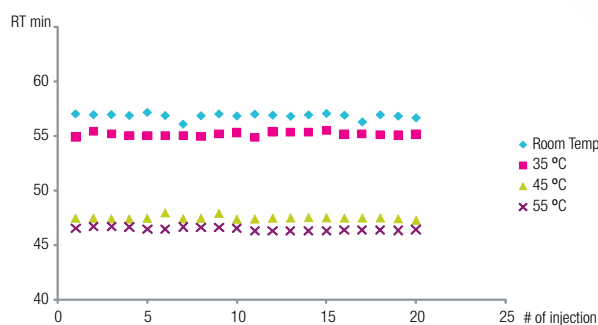
4,087 unique proteins were identified from a single HPLC separation of a 1000 ng human cell digest with a 50 cm EASY-Spray column.



Amazing peak capacity

The entire assembly is designed for heavy use so you can utilize the full pressure range of your UHPLC front-end (up to 1000 bar) and benefit from small particles and long columns. Longer columns and longer gradients both contribute to more identifications.

RT reproducibility of peptide EAVNQVIALDLSGALR from 500 ng *E.coli* complex sample for 20 repeat runs in different temperature ranges.



Temperature control

Column temperature control immediately before the MS inlet increases run to run reproducibility and allows the use of even longer columns and/or smaller particle sizes since elevated temperatures lower eluent viscosity and reduce the overall backpressure.

Full compatibility

EASY-Spray source is fully compatible with the following Thermo Scientific instrument families:



Thermo Scientific EASY-nLC 1000

For effortless sample introduction.



Thermo Scientific Dionex UltiMate 3000 RSLCnano

for versatile and flexible chromatography.



EASY-Spray Source

Order No. ES081



Discovery

The ultra-high resolution capability of the Thermo Scientific Orbitrap Elite mass spectrometer creates new possibilities in research and discovery.



Quantification

The benchtop Thermo Scientific Q Exactive mass spectrometer is a powerful HR/AM instrument to identify, quantify, and confirm.



Analysis

The Thermo Scientific Velos Pro is the pinnacle of ion trap mass spectrometry that delivers enhanced performance for complex sample analyses.



Targeted

The Thermo Scientific TSQ Vantage triple stage quadrupole mass spectrometer delivers the highest sensitivity with the lowest noise for the quantitative analysis of small molecules, peptides, biosimilars, and biologics.

www.thermofisher.com/easyspray

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