Online Chromatography

Enhance Process Understanding

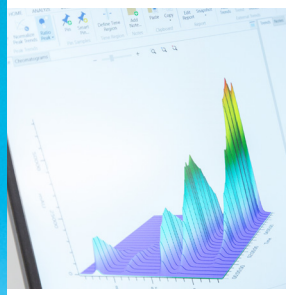
With Online HPLC Analysis

HPLC for Reaction Analysis

With DirectInject-LC, HPLC can now be used for near real-time reaction and crystallization understanding. Fully automated rapid reaction sampling and injection transforms HPLC into a powerful new technology for online reaction monitoring.

Effortless In-Situ Sampling

Hands-free and reproducible reaction sampling, preparation, and injection. Continuously collect representative samples, quenched at reaction conditions, with proven EasySampler™ technology that enables analysis of complex, multiphase, and challenging chemistry.



Fewer Trials, More Discoveries

Collect HPLC data that is representative of the reaction at the time of sampling. Analysis of the data with world-leading iC Software, specifically designed for reaction analysis and modeling, enables deeper reaction insight and accelerated development.

PAT is Our DNA

Thousands of PAT installations around the world and four decades of experience are built into DirectInject-LC with iC LC™. iC Software seamlessly incorporates multiple orthogonal data streams that drive comprehensive reaction understanding.

DirectInject-LC™

Transform HPLC into an online technique for reaction analysis and gain the data required to understand complex processes in near real-time.

DirectInject-LC bridges the gap between offline methods and real-time, in-situ process analytical technologies (PAT), such as ReactIR™, ReactRaman™, and EasyViewer™, by effortlessly sampling a wide range of chemical reactions, with automated sample quench, dilution, and delivery to a chromatography instrument. Combine DirectInject-LC with world-leading reaction analysis and modeling software to gain near real-time insight into quantitative reaction concentrations and kinetics, crystallization processes, and impurity profiles.

METTLER TOLEDO

Enhance Process Understanding
With Online HPLC Analysis

Developed in collaboration with:

TELESCOPE INNOVATIONS

Developed in Collaboration with ETC®

Technical Data: DirectInject-LC

Power	85 VAC to 264 VAC, 47 Hz to 63 Hz
Operating Temperature Range	4 °C to 55 °C
Weight	S-100: 1.0 kg [2.2 lb] D-100: 3.2 kg [7.1 lb] I-100: 2.8 kg [6.2 lb]
Wetted Materials	I-100: 316 SS, ETFE, PEEK, PAEK, PTFE D-100: 316 SS, ETFE, PTFE, Sapphire, PAEK, PEEK, Viton
Certification	CE, NRTL-C
Instrument PC Specifications*	Microsoft® Windows® 10/11 Intel® Core® i5 3 GHz 16 GB or more RAM
Software Required	iC LC Instrument CDS Connection Application Microsoft Edge® / Google® Chrome®
Supported CDS	Agilent OpenLab® ChemStation® Agilent OpenLab® WorkStation Waters® Empower® 3 Shimadzu® LabSolutions™ Thermo Scientific™ Chromeleon™

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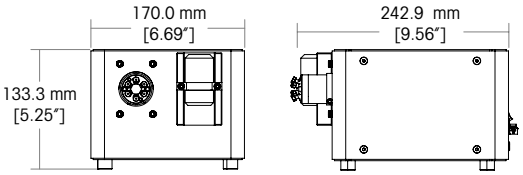
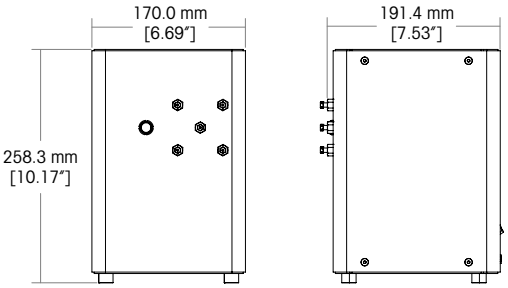
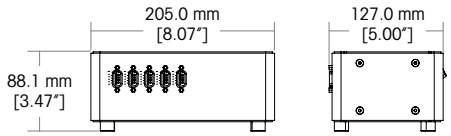
DirectInject-LC Instrument Module I-100



DirectInject-LC Delivery Module D-100



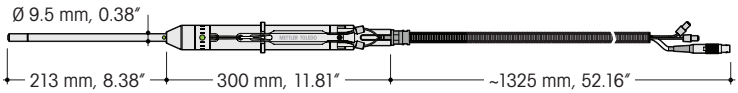
DirectInject-LC Server Module S-100



Technical Data: Sampling Technology

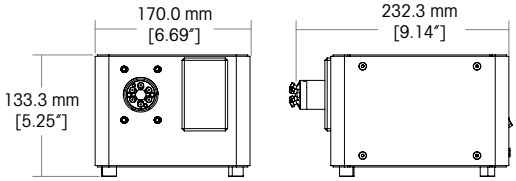
	EasySampler Probe 210	Flow Sampler Module
Weight	0.8 kg [1.76 lb]	2.4 kg [5.3 lb]
Wetted Materials	Alloy C-22, PTFE	Nitronic 60, Valcon H
Reaction Temperature Range	–20 °C to 140 °C (at 1 bar) 20 °C to 100 °C (at 10 bar)	20 °C to 75 °C
Reaction Sampling Volume	20 µL ± 10%	Any loop volume
Reaction Pressure Range	1 bar to 10 bar	1 bar to 340 bar

EasySampler Probe 210** – for EasyMax 102 and 402 using reactors from 10 mL up to 400 mL



**Additional EasySampler Probe lengths and accessories are available. SMART tool is not included. Please refer to the EasySampler datasheet for detailed information.

DirectInject-LC Flow Sampler Module F-100



www.mt.com/DirectInject-LC

For more information

METTLER TOLEDO Group
Automated Reactors and In-Situ Analysis
Local contact: www.mt.com/contacts