



Thermo Scientific Vanquish—Dual Split Sampler HT/FT

# Separate your productivity from the status quo

## Vanquish platform benefits

- Unsurpassed retention time and peak area precision
- High detector sensitivity and low baseline noise
- Less maintenance and easy set-up with Thermo Scientific™ Viper™ fingertight fittings
- Dedicated solutions for exceptional LC-MS performance

## Keywords

Vanquish Flex, Vanquish Horizon, Vanquish Duo, Dual LC, autosamplers, fluidics, productivity, throughput

Experience uncompromised UHPLC—with no trade-offs in performance, robustness or ease-of-use. Operators of the Vanquish platform have all they need to solve their toughest analytical challenges with confidence.

## Dual sample injection for highest productivity and fastest return on investment

The Thermo Scientific™ Vanquish™ Dual Split Sampler HT/FT perfectly combine maximum injection precision with huge sample capacity. As part of the Thermo Scientific™ Vanquish™ Duo system for Dual LC, the Vanquish Dual Split Samplers double the number of injection units for the highest possible throughput in a single instrument bench space.

The fully biocompatible fluidics are optimized for the highest ruggedness and uptime even under tough system pressure and eluent conditions.

- Double your application flexibility with two independent injections units
- Unsurpassed sample dosage precision
- Maximum sample integrity as a result of the innovative air stream cooling, even in challenging environments
- Easy method transfer and unlimited application flexibility with customizable gradient delay volume
- Eliminate tedious sample configuration through automated barcode reading

## Specifications

Specification	Value
Number of Injection Units	2
Operating Principle	Split loop injection
Pressure Range	VH-A40-A-02: 5–151 MPa (50–1517 bar, 700–22,000 psi) VF-A40-A-02: 2–103 MPa (20–1034 bar, 290–15,000 psi)
Injection Volume Range	0.01–25 µL, min. step = 0.01 µL; Optional: 0.01–100 µL
Injection Volume Accuracy	Typically ±0.5% for 10 µL water
Injection Volume Precision	<0.25% area RSD for 1 µL (caffeine in water) Typically <0.5% area RSD for 0.5 µL (caffeine in water)
Injection Linearity	$r > 0.99999$ (caffeine in water)
Injection Cycle Time	Down to 8 s depending on separation conditions
Minimum Sample Required	2 µL at 1 µL injection volume
Carry Over (UV)	<0.002% with caffeine (typically: <0.0004%)
Needle Wash (external)	1 solvent per injection unit, dip rinse and continuous rinse
Sample Compartment Temperature Range	4–40 °C (≥23 K below ambient at <80% RH)
Sample Temperature Accuracy	-2 °C/+4 °C
Sample Temperature Stability	±1 °C
Dwell Volume	110 µL with 25 µL sample loop (default configuration); 83 µL with sample loop of 10 µL
Sample Capacity	Any four of the following (SBS footprint) <ul style="list-style-type: none"> <li>• 54 × 12 mm OD vials (≤1.5 mL)</li> <li>• 96 × 6, 7 and 8 mm OD vials (≤1.2 mL)</li> <li>• 24 × 15 mm OD vials (≤4 mL)</li> <li>• well plates (96 and 384, deep and shallow)</li> </ul> + capacity of 12 × 22.5 mm OD vials (≤10 mL) in the carousel
Automation Features	Barcode reading: <ul style="list-style-type: none"> <li>• Empty segment detection</li> <li>• Rack/well plate verification</li> <li>• Inventory management</li> </ul>
GLP	Predictive performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the sampler. All system parameters logged in the Thermo Scientific™ Chromeleon™ Chromatography Data System Audit Trail.
PC Connection	USB 2.0; 3-port-HUB to connect further Vanquish modules
I/O Interfaces	2 × 6 pin Mini-DIN connectors each having functionality: 1 input, 1 relay out
Safety Features	Leak detection and safe leak handling
Wetted Parts	Sample flow path: Titanium, Ceramics, PEEK, MP35N, DLC Eluent flow path: MP35N, Titanium, Sapphire, PEEK, PTFE, Ceramics, DLC Wash liquid flow path: Silicone, PP, FFPM, PEEK, PA
Biocompatible	Yes, pH range 2–12, chloride concentration up to 1 mol/L
Power Requirements	100–240 VAC, 50/60 Hz, max. 525 W/550 VA
Environmental Conditions	Operation: 5–35 °C; 20–80% RH (non condensing), max. 2000 m above sea-level, Storage: -20–45 °C max. 60% RH (non condensing)
Dimensions (h × w × d)	290 × 420 × 620 mm (11.4 × 16.5 × 24.4 in.)
Weight	29 kg (63.9 lbs.)

## Ordering information

Description	Part Number
Vanquish Dual Split Sampler HT	VH-A40-A-02
Vanquish Dual Split Sampler FT	VF-A40-A-02
Sample loop, 10 µL, MP35N, left	6850.1915
Sample loop, 10 µL, MP35N, right	6850.1919
Sample loop, 25 µL, MP35N, left (default)	6850.1911
Sample loop, 25 µL, MP35N, right (default)	6850.1917
Sample loop, 100 µL, MP35N, left	6850.1913
Sample loop, 100 µL, MP35N, right	6850.1918
Sample rack, 54 pos, 12 mm OD vials	6850.1023
Sample rack, 96 pos, 6 mm OD vials	6850.1026
Sample rack, 96 pos, 7 mm OD vials	6850.1030
Sample rack, 96 pos, 8 mm OD vials	6850.1034

Find out more at [thermofisher.com/VanquishDuo](https://thermofisher.com/VanquishDuo)

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