

HPLC & UHPLC

Vanquish Column Compartments

LC that takes your productivity to new heights

Vanquish LC platform benefits

- Precision and reproducibility to meet every application demand
- Widest portfolio of detection technologies
- Reduced maintenance, and easier set-up with Thermo Scientific™ Viper™ TQ UHPLC Fittings
- Dedicated solutions for exceptional LC-MS performance
- Increased longevity and sustainability of the Thermo Scientific Vanquish™ HPLC and UHPLC Systems using lifespan extending accessories



Hosting the LC column means more than simply “Hold and heat”

Temperature determines retention, selectivity and efficiency in your chromatography performance. Thermo Scientific™ Vanquish™ HPLC and UHPLC systems pave the way to maximum efficiency and resolution by delivering exceptional temperature control.

- Perfectly align your eluent and column temperature with unique active pre-heating
- Reduce cost-of-ownership and enhance sustainability with the Active pre-heater TQ featuring replaceable outlet capillaries.
- Boost your separation speed and resolution with still air thermostating for utmost efficiency
- Enjoy seamless method transfer by choosing between forced air and still air thermostating to mimic other column thermostats
- Extend your workflow capabilities with up to three independent column compartments and multiple switching valves
- Track your column records with a column ID system that is fully integrated into Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) software

Specifications

	Column Compartment H	Column Compartment C
Operating principle	Still air and forced air	
Temperature range	5–120 °C in 0.1 °C increments (max. 18 °C below ambient)	5–85 °C in 0.1 °C increments (max 18 °C below ambient)
Temperature stability	±0.05 °C	
Temperature accuracy	±0.5 °C (up to 80 °C)	
Heating performance	From 20 °C to 50 °C (±1 °C) in <15 min From 25 °C to 40 °C (±1 °C) in 5 min	
Cooling performance	From 50 °C to 20 °C (±1 °C) in <15 min	
Capacity	2 column slots	
Column slot dimension	387 mm × 25 mm	
Temperature zones	1 per device (up to 3 zones in stacked configuration)	
Column capacity	4 columns of 100 mm length w/ passive preheater TQ 2 columns of max. 250 mm length w/ guard column and active preheater TQ or passive preheater TQ 2 columns of 300 mm length with passive preheater TQ 1 column of 300 mm length w/ active preheater TQ Max. column i.d.: 10 mm	
Column ID	Up to 4 column ID tags	
Valves	Up to 2 valves: 2-position/6-port, 6-position/7-port	
Pre-heater	Yes, active and passive	Yes, active (optional) and passive
Post-column cooler	Yes	No
Pressure range	5–151 MPa, (50–1517 bar, 700–22,000 psi)	2–70 MPa (20–700 bar, 290–10100 psi)
Wetted parts	Titanium, Ceramics, MP35N	Titanium, Ceramics, SST
Biocompatible	Yes; pH range 1.5–12, chloride concentration up to 1 mol/L	No; pH range 1–13, chloride concentration up to 0.1 mol/L
Normal-Phase compatible	Yes. Column switching with normal-phase compatible valves (see below)	
Safety features	2 doors, fluid leak sensors, fast-cool button	
PC connection	USB 2.0	
GLP	Predictive Performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the column compartment. All system parameters logged in the Chromeleon CDS audit trail.	
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)	
Power requirements	100–240 V AC, 50/60 Hz, max. 310 W/330 VA	
Dimensions (h × w × d)	700 × 111 × 422 mm (27.6 × 4.4 × 16.6 in.)	
Weight	14 kg (30.9 lbs)	
	Active pre-heater	Post-column cooler
Operating principle	Active	Passive
Temperature range	40–120 °C (5 °C above ambient)	40–80 °C
Temperature stability	±0.5 °C	
Temperature accuracy	±2 °C (up to 80°C)	±2 °C (up to 80 °C)
Heating performance	80 °C at 2.5 mL/min 120 °C at 1 mL/min (water/acetonitrile (50/50, v/v))	–
Cooling performance	–	Down to 50 °C at 2 mL/min and 120 °C column temperature (water/acetonitrile (50/50, v/v))
Capacity	2 for each column compartment	1 for each Column Compartment H

Ordering information

Description	Part number
Optional modules	
Column Compartment H	VH-C10-A-03
Column Compartment C	VC-C10-A-03
Accessories	
Conversion Kit for left or mid installation of Vanquish TCC	6732.0007
Biocompatible 2-position/6-port column switching valve (150 MPa)	6036.2520
Biocompatible 6-position/7-port column switching valve (150 MPa)	6036.2530
Biocompatible 2-position/6-port column switching valve (70 MPa)	6230.1520
Biocompatible 6-position/7-port column switching valve (70 MPa)	6230.1530
Normal-Phase compatible 2-position/6-port column switching valve (70 MPa)	6230.2520
Normal-Phase compatible 6-position/7-port column switching valve (70 MPa)	6230.2530
Column-ID Tag, 2 pcs.	6732.0610
Column holder kit	6732.1904
Accessories with Viper TQ UHPLC Fittings	
Active pre-heater TQ 0.100 × 380 mm, MP35N	6732.0700
Active pre-heater TQ 0.100 × 610 mm, MP35N	6732.0720
Active pre-heater outlet capillary Viper TQ, MP35N, 3 pcs.	6732.0809
Active pre-heater outlet capillary Viper, MP35N, 3 pcs.	6732.0829
Passive pre-heater TQ 5µL 0.250 x 580 mm, SST	6732.0750
Passive pre-heater TQ 3µL 0.180 x 580 mm, SST	6732.0740
Passive pre-heater TQ 1µL 0.100 x 580 mm, MP35N	6732.0760
Passive pre-heater TQ 1µL 0.100 x 730 mm, MP35N	6732.0780
Post-column cooler TQ 1 µL, 0.100 × 240 mm, MP35N	6732.0540
Post column cooler TQ 1 µL, 0.100 × 590 mm, MP35N	6732.0560
Accessories with Viper Fingertight Fitting Systems	
Active pre-heater 0.100 × 380 mm, MP35N	6732.0110
Active pre-heater 0.100 × 610 mm, MP35N	6732.0150
Passive pre-heater 0.25 x 580 mm, SST	6732.0180
Passive pre-heater 0.18 × 530 mm, SST	6732.0170
Passive pre-heater 0.1 × 530 mm, MP35N	6732.0174
Passive pre-heater 0.1 × 680 mm, MP35N	6732.0184
Post-column cooler 1 µL, 0.1 × 240 mm, MP35N	6732.0510
Post-column cooler 1 µL, 0.1 × 590 mm, MP35N	6732.0520

For more information on Vanquish Column Compartments click [here](#)

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