Agilent 1290 Infinity II Multicolumn Thermostat

Data Sheet

Product Description

The Agilent 1290 Infinity II Multicolumn Thermostat (MCT) allows precise column thermostatting over a broad temperature range: from cooling down to 20 degrees below ambient temperature up to 110 °C, providing infinite flexibility for optimized speed and selectivity of LC separation. Ultrahigh pressure valves enable a wide range of applications such as column selection from 8 columns in a single MCT, sample preparation for analyte enrichment or matrix removal, alternating column regeneration — and many more. The MCT fits perfectly with all 1290 Infinity II modules and can also be combined with modules of the Agilent 1260 and 1290 Infinity Series.

Features

- Superior usability with flexible flap positions: open door to 90° (desk function), 180° or even remove door for accessibility.
- Efficient, fast and most convenient column exchange through new quick-connect fittings.
- Advanced column capacity for up to 8 columns in a single MCT.
- Next generation Quick-Connect Heat Exchanger for pre-column solvent thermostatting — easily mounted for each of up to 8 columns and optimized for lowest internal volume contribution.
- Maximum application flexibility through Peltier cooling and heating with two independent temperature zones from 20 degree below ambient up to 110 °C.
- Optional valve drive for use of 1200 Infinity Series Quick-Change high pressure valves.
- High temperature precision for reproducible retention times and peak areas.

Specifications

Table 1 Physical Specifications

Type	Specification	Comments
Weight	12.5 kg (27.6 lbs)	
Dimensions (height × width × depth)	160 x 435 (472) x 436 mm (6.3 x 17.1 (18.6) x 17.2 inches)	
Line voltage	100 – 240 V~, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	
Power consumption	150 VA, 150 W	
Ambient operating temperature	4–55 °C (39–131 °F)	
Ambient non-operating temperature	-40 – 70 °C (-40 – 158 °F)	
Humidity	< 95 % r.h. at 40 °C (104 °F)	Non-condensing
Operating altitude	Up to 2000 m (6562 ft)	
Non-operating altitude	Up to 4600 m (15092 ft)	For storing the module
Safety standards: IEC, EN, CSA, UL	Installation category II, Pollution degree 2	For indoor use only.

Table 2 Agilent 1290 Infinity II Multicolumn Thermostat (G7116B) Performance Specifications

Feature	Specification
Operating principle	Dual, independent Peltier-element thermostatted column compartment. Solvent pre-heating and still-air operation for reduction of chromatographic band-broadening under UHPLC-conditions. Up to three devices can be clustered and controlled by a single user interface for additional flexibility*.
Temperature range	4 °C to 110 °C, (minimum 20 °C below ambient)
Temperature stability	±0.03 °C
Temperature accuracy	±0.5 °C (with calibration)
Temperature precision	0.05 °C
Independent Temperature zones	2 (in single device) up to 6 in clustered configuration[1]

Table 2 Agilent 1290 Infinity II Multicolumn Thermostat (G7116B)
Performance Specifications

Feature	Specification
Column capacity	8 columns of 100 mm length plus Quick-Connect fittings or pre-columns 4 columns of 300 mm length plus Quick-Connect fittings or pre-columns Selection of columns by single optional integrated 8-column selection valve (1300 bar) Maximum of 24 columns of 100 mm length plus Quick-Connect fittings or pre-columns 12 columns of 300 mm length plus Quick-Connect fittings or pre-columns with clustering[1] of three devices.
Heat-up/cool-down time	5 min from ambient to 40 °C 10 min from 40 °C to 20 °C <30 min from 25 °C to 100 °C
Solvent heat exchangers	Individually quick-installable for every column. Available at 1 µL (ultra-low dispersion), 1.6 µL (standard) and 3 µL (high-flow) volume.
Valve options	1x integrated valve drive as option 2x external valve drives as option to host user-exchangeable Quick-Change valve heads of different formats, materials and pressure ratings (up to 1300 bar): 2-position/6-port, 2-position/10-port, 6-column selection (6-pos/14-port), 8-column selection (8-pos/18-port). Equipped with tags, valve heads are automatically identified by SW
Communications	Controller-area network (CAN).
Safety and maintenance	Extensive diagnostics, error detection and display (through Instant Pilot control module and Agilent LabAdvisor), leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in main maintenance areas. Door-open sensor.
GLP	Valve heads carrying tags with serial number, pressure rating, number of switches and valve type.

[*] Availability 2015

Ordering Details

Description	Part Number
1290 Infinity II Multicolumn Thermostat	G7116B
Add option for valve drive	G7116B #058
Add option for 1 standard flow quick-connect heat exchanger and 4 column clips	G7116B #062
Add option for 1 high flow quick-connect heat exchanger (2.5 mL/min and higher) and 4 column clips	G7116B #063
Add option for 1 ultralow-disperison quick-connect heat exchanger and 4 column clips	G7116B #064
8-column selector valve head, 1300 bar, for use in G7116B MCT	G4239C
Add option for low dispersion capillary (0.12 mm id) kit for valve G4239C	G4239 #005

Agilent Technologies