




Agilent InfinityLab LC Series Variable Wavelength Detectors

Preperative Flow Cells

This note describes the prep flow cells for Agilent InfinityLab LC Series Variable Wavelength Detectors (G7114X).

Flow Cells for Preparative HPLC

Table 1 InfinityLab LC Series VWD Flow Cells for Preparative HPLC

	InfinityLab LC Series VWD preparative flow cells			
Options for G7114 VWD	#022	#024	#026	#082
Part Number	G1314-60024	G1314-60025	G1314-60023	G7114-60024
Path length	3.0 mm	0.3 mm	0.06 mm	3.0 mm
				
Capillary connections	Inlet ST 0.5 mm	Inlet ST 0.7 mm I.D. Outlet PTFE-ESD 0.8 or 1.0 mm		
Cell volume	2 µl	Not applicable (bypass design)		
Maximum pressure	120 bar (12 MPa)	50 bar (5 MPa)	50 bar (5 MPa)	50 bar (5 MPa)

NOTE See information on the maximum flow rate page 10.

NOTE **G7114-60024:** Due to its design, the optical bandwidth at 254 nm is wider than 6.5 nm.

Parts Identification

- “Special Accessories” on page 3,
- “Prep Flow Cells - G1314-60023/25 and G7114-60024” on page 5,
- “Prep Flow Cell - G1314-60024” on page 9.

Special Accessories

The tools below mentioned tools may be helpful for your work with the preparative flow cells.

Table 2 **Special Accessories**

Description	Part Number
Plastic tubing cutter, see Figure 1	8710-1930
Back pressure regulator, see Figure 1 keeps the system pressure at 7 bar (100 psi), used for low flow rates to remove air bubbles from the flow cell (e.g. MeOH/H ₂ O gradients). Comes with two 50 cm PTFE tubings, 1/16” o.d. and 0.8 mm i.d. and fittings	5042-6443

Parts Identification

Figure 1 **Special Accessories**

Plastic tubing cutter



Back pressure
regulator



Parts Identification

Prep Flow Cells - G1314-60023/25 and G7114-60024

There are no maintenance parts for the prep cells. A leaking flow cell has to be replaced completely.

Table 3 **Prep Flow Cells G1314-60023/25**

Item	Description	Part Number
Figure 2	Prep Flow Cell, 0.3 mm, 50 bar (5 MPa) completely assembled, includes G1314-68706	G1314-60025
	Prep Flow Cell, 0.06 mm, 50 bar (5 MPa) completely assembled, includes G1314-68706	G1314-60023
	Prep Flow Cell, 3 mm, 50 bar (5 MPa) completely assembled, includes G1314-68706	G7114-60024
Figure 3	Prep Cell Kit contains below items	G1314-68706
1	Tubing Assembly ID 6 mm, OD 9 mm	5063-6527
2	Outlet Tubing PTFE-ESD 2 m length, 1.0 mm i.d., o.d. 1.6 mm with fittings for flow cell assembled (see notes on page 8) for 100 - 300 mL/min	G1315-67304
3	Outlet Tubing PTFE-ESD 2 m length, 0.8 mm i.d., o.d. 1.6 mm with fittings for flow cell assembled (see notes on page 8 for up to 100 mL/min	G1315-67305
4	Capillary ST 0.7 x 1000 mm	5067-5748
5	Cell Waste Tubing 70 mm	5063-6527
6	L-Tube Connector 90 degree	5500-1155
7	T-Tube Connector	5500-1156

Parts Identification

Table 3 **Prep Flow Cells G1314-60023/25**

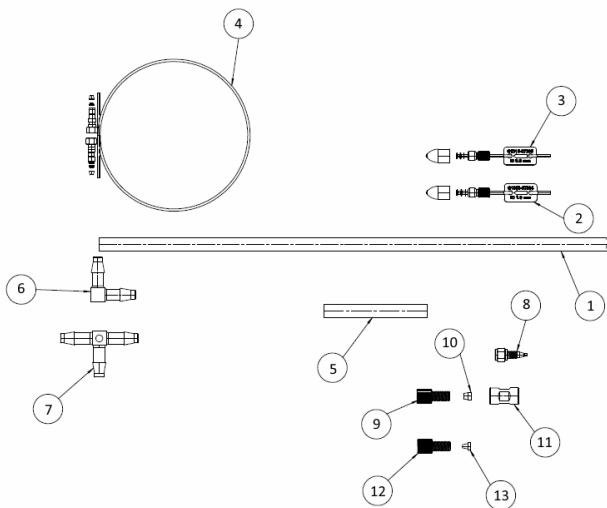
Item	Description	Part Number
8	Adapter 1/4" - 10/32"	5023-2512
9	Nut Flangeless ESD 1/4" for 1/8" OD	5023-2509
10	Ferrule Flangeless ESD for 2.0 mm OD	5023-2510
11	Union Flat Bottom ESD 1/4"	5023-2508
12	Nut Flangeless ESD 1/4" for 1/16" OD	5023-2268
13	Ferrule Flangeless ESD for 1/16" OD	5023-2269

Parts Identification

Figure 2 **Prep Flow Cells - G1314-60023/25, G7114-60024**



Figure 3 **Prep Cell Kit - G1314-68706**



Parts Identification

NOTE

The flow cell comes with two outlet tubings (0.8 mm i.d. and 1.0 mm i.d.) so that the combination at the flow cell could be either 0.7/0.8 or 0.7/1.0 (inlet/outlet)

At flow rates above 100 mL/min use the 1.0 mm i.d. tubing.

Use the plastic tubing cutter, described under “Special Accessories” on page 3, to shorten the tubings as needed.

Parts Identification

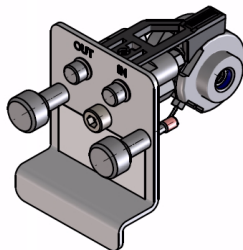
Prep Flow Cell - G1314-60024

For internal maintenance parts for the prep cells refer to the Parts section “Micro Flow Cell G1314-60187” in the G7114 VWD User Manual.

Table 4 **Prep Flow Cells G1314-60024**

Item	Description	Part Number
	Prep Flow Cell, 3 mm, 120 bar (12 MPa) completely assembled, shipped without capillaries	G1314-60024
	Gasket VWD Prep 3 (replaces gaskets mentioned in Micro Flow Cell G1314-60187.	G1314-20052
	Capillary SST, 250 mm length, 0.5 mm i.d., o.D. 0.9 mm (to flow cell IN)	G1315-87305

Figure 4 **Prep Flow Cell - G1314-60024**



Using the Prep Cells

Installing G1314-60023/25 and G7114-60024 Prep Cells

- Connect the leak tube from the Prep Cell kit as shown in Figure 5.

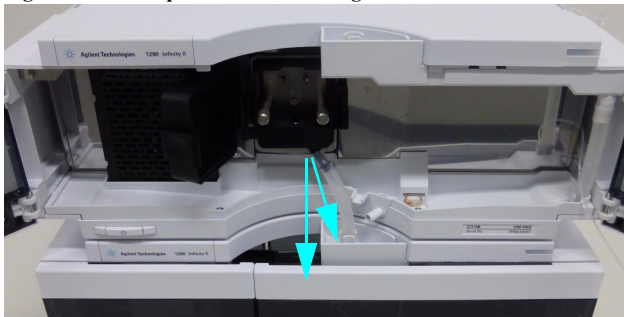
NOTE Refer to chapter “Leak and Waste Handling” of your G7114 InfinityLab LC Series VWD or the InfinityLab LC Series system manuals for further information on leak handling.

NOTE When used in InfinityLab LC Series systems the maximum flow rate is 300 mL/min (maximum leak handling capability). In mixed systems (G7114 VWD plus 1100/1200/1200 Infinity modules) the waste tube should be routed to the waste container directly.

NOTE If the module below the G7114 VWD is a G7116 Multi Column Thermostat (MCT), route the waste tubing to the module below the MCT or directly to the waste container.

Using the Prep Cells

Figure 5 Prep Flow Cell - Routing of Leak Tube





G7114-90120

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2014-2017, 2018

Rev.B

Printed in Germany

Edition 05/2018