

Clarity Control – Gilson Pumps 302–307



Clarity Chromatography Software allows for the direct control of the Gilson Pumps. The high-pressure gradient is created from up to four individual gradient components, where each component is delivered by an individual pump. The control of LC enables Clarity to provide integrated instrument control and to ensure complete automation for laboratories.

The LC control is compatible with the Gilson Pumps 302 through 307.

The LC Control is an optional software module for the Clarity Chromatography Station. Clarity is designed to acquire and evaluate data from up to four chromatographs at a time (multi-detector measurement).

Detailed description can be found at: <https://www.dataapex.com/product/controls-lc-gilson30x>

The user can easily create a gradient method from the LC control window. It is possible to set the percentage of each gradient component and the overall flow rate in the gradient table. All parameters, including idle pump behavior controls, are a part of the method. Therefore, it is possible to create various gradient profiles and choose the corresponding method each time via loading.

The actual flow rates of each gradient component and their overall sum and pressure can be monitored in the independent LC Monitor section of the Device Monitor.

The screenshot displays two windows from the Clarity software. The 'Method Setup Default1 (MODIFIED)' window shows a 'Gradient Table' with the following data:

Time [min]	MeOH [%]	H2O [%]	Flow [mL/min]	
1	Initial	10.0	90.0	10.000
2	10.00	30.0	70.0	10.000
3	15.00	40.0	60.0	15.000
4	30.00	50.0	50.0	15.000
5		0.0	100.0	

Below the table is a graph showing the flow rate (mL/min) and composition (%) of MeOH and H2O over time (min). The 'Standby Flow' is set to 1 mL/min, 'Time to Standby' is 5 min, and 'Standby Time' is 0 min. The 'Idle State' is set to 'Initial'. The 'Device Monitor' window shows real-time monitoring of the LC system, including flow rates for MeOH (1.000 mL/min) and H2O (9.000 mL/min), a total flow of 10.000 mL/min, and a pressure of 10.000 MPa. It also includes controls for 'Stop Flow', 'Set Flow...', 'Resume Idle', 'Hold', and 'Modify Gradient...'.

The setting of the instrument method as well as online monitoring, is seamlessly integrated within Clarity

The control is realized via a standard PC serial port using the cable supplied with the Gilson pump. A special GSIOC converter is required.

Specification and requirements

Controlled devices: Gilson 302, 303, 305, 306, 307

Communication interface: GSIOC

Purchasing: LC Control (p/n A24)

Related products: Clarity (p/n C50)
MultiCOM adapter (p/n MC01)
IGLN2 Adapter (p/n IGLN2)
The adapter cable can be used to connect additional pumps or other devices to the GSIOC converter
(Additional information is available at: <https://www.dataapex.com/product/hw-igln2>)

Cable: IGLN1 Converter RS232/GSIOC for Gilson (p/n IGLN1)
Optional accessory for Gilson 30x LC Control, the kit contains all the parts needed to control the binary gradient: RS232/GSIOC adapter and cables
(Additional information is available at: <https://www.dataapex.com/product/hw-igln1>)