

IDI - CYBOR

The IDI M310 POD Pump



The IDI M310 POD Pump The Multiple Output Dispense System

The IDI-M310 Series Pressure-On-Demand Pump, POD, technology pump provides automated dispense control for the develop, Edge Bead Removal, (EBR), and Solvent Pre-wet process. The IDI-CYBOR patented POD provides bubble free, uniform flow rates that far exceed any results from a pressurized canister. The units have no mechanical displacement and are engineered to dispense a variety of photolithography chemicals.

The IDI-M310 pump is configurable with one to three outputs. The outputs can be operated sequentially or simultaneously. The volumes are independently programmable.

The IDI-M310 pump uses Pulse Width Modulation to control the pressurization of the driver gas that displaces the photo chemical. The pressure "servo loop" provides a constant photochemical flow regardless of the number of outputs valves open or filter loading. The pump system will not allow itself to run out of photo chemical making it impossible to introduce air into the dispense lines.

The user friendly controller can control operations of up to four IDI-M310 pumps. Each M310 series pump can dispense up to three dispense points simultaneously. Chemistry is supplied to each M310 from up to two sources, depending on user specification. The controller offers a flexible software interface for specifying parameters and monitoring and controlling operations. All dispense parameters are digitally controlled and have access code protection.



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The Multiple Output Dispense System

The IDI Model 310 POD Pump

Dispense System Features:

- Only one moving part in the fluid path
- Float style liquid level sensors ensure that the filter is not exposed to the driver gas.
- Point of use filtration
- Auto Venting to prevent air bubble from entering the process lines and to reduce the effects of out gassing.
- Flare fittings on all fluid path connections
- Purge Vent or Purge Back to source lines to reduce chemical waste
- Independent drawback control valves provide a clean shut off and controllable shut off.
- Delta P servo loop pressure control compensates for filter loading.
- The all Teflon® fluid path is compatible with develops solvents and other photolithography chemicals.
- Photoresist specific Model 300 available.

Dispense System Features:

- Operates up to four IDI-M310 POD pumps.
- Operates up to 12 dispense points
- Monitors Source and Filter conditions.
- Provides superior maintenance features
- Simple equipment interface.
- RS232, 422, and 485 communications options.



M300 Controller

Model 310 POD Pump DATA SHEET

Reliability	MTBF > 1,000,000 dispenses
Repeatability	1-10 ml: <.01 sigma > 10 ml: +/- .1%
Dispense Volume	M300 0.05-100cc M310 0.05-500cc 1 liter M310 0.05-1000cc (programmed in 0.01 sec. increments)
Dispense Rate	1 cp = 25 cc/sec., 300 cp = 1 cc/sec* (programmed in .1 psi increments 0.25)
Differential Pressure	0-35 psi
Viscosity Range	1-300 cp
Filter Size	.05, .1u or .2u 2" / 4"
Controller	Ambient, pressure or vacuum
(a) Size:	9"L x 10"W x 5"H
(b) Power:	110V, 1 amp minimum
Dispense Unit	
(a) Size:	M300 5.5"W x 9.5"L x 12.5"H
(b) N2	M310 5.5"W x 9.5"L x 14.5"H Regulated 70 psi @ .75 cfm

*Will vary depending on line size and type of filter used.

**The Easy Choice...
For Chemical Management Solutions**



CYBOR

by

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