



CIMS II

Fluid Management System

The CIMS II is a robust and compact recirculating fluid management system, offering OEMs and integrators a highly compatible and well-rounded solution.

The CIMS II is ideal for laboratory to medium sized machinery

Designed for use with high flow rate and pressure feed technology printheads, with a flow rate of up to 450ml.

Usage



Laboratory



Medium Machine



Recirculating



Pressure fed

Highlights

Suitable for all applications

Small footprint and fully integrated components reduces time to market for a wide variety of set ups.

High compatibility

Works with all industrial pressure fed recirculating and through flow technology printheads.

Accelerate prototyping and production

Advanced levels of control and operation makes this an ideal choice for production and projects requiring rapid development.



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Technical specifications

Physical

Product dimensions (WxDxH)	• 223 x 121 x 191 mm
Tank volume	• 60 ml
Fluid connections	• 8 mm OD 6 mm ID standard • 6 mm OD and 4 mm ID option
Weight	• 2.7 kg

Electrical

Supply voltage	• 24V
Supply power rating	• 6 - 10 A (dependent on options supplied)
Communication interface	• 4 wire RS422 / RS485 interface (supports multi dropping of devices; maximum of 15 nodes) • Optional USB to RS422 communication gateway adapter. Supplied with Megnajet communication kit.

Operating conditions

Operating temperature	• 5 - 65°C (40 - 149°F)
Storage temperature	• 5 - 100°C (40 - 212°F)
IP rating	• IP50

Connectivity to printhead

Printhead type	• Pressure fed through flow
Number of printhead outlets	• 1 to 2 (dependent on jetting duty)
Maximum flow rate	• 450 ml per minute
Maximum in feed pressure	• 600 mbar
Maximum return pressure	• -200 mbar (-600 mbar version available)
Maximum purge pressure	• 950 mbar (standard 500 mbar)

Software

Integration	• Open source ASCII interface • Optional .NET DLL SDK available on request
Supported OS	• Win XP, Win 7, Win 8, Win 10 (Requires .NET 4 or higher)

Product customisation

Units can be customised to suit fluid type and application, including (but not limited to) the use of alternate body materials (e.g. FDA approved food grade acetal and aluminium); choice of gasket material (e.g. FKM, peroxide cured EPDM and FFKM); and customisations to user software.

Compatible system components

- Degassing Pump Assembly
- Inline Heater Assembly
- Remote Manifold
- Comms Kit.

Product information

- 950 mbar purge capability, allowing simple and controllable head maintenance
- Hydraulic meniscus measurement automatically adjusts meniscus pressure during use compensating for duty giving uniform delivery of fluid to the printhead
- System material options cater for more specialised fluids, such as food grade, aggressive solvents and high density particulates
- Integrated failsafe chamber automatically shuts down the system on tank overflow preventing wider system damage and also enables easy fault finding
- Internal closed loop heater for in-tank fluid temperature control plus support for external in-line heater up to 65°C ($\pm 1^\circ\text{C}$) allows tight control of viscosity to the printhead
- Single 24V system voltage makes for safer integration and usage plus low energy consumption
- Simple and robust communications interface (galvanically isolated RS422) allows monitoring by RS422 enabled devices with ASCII strings giving industrial, fast integration and machine development
- Opto-isolated PLC compatible I/O interfacing allowing traditional systems monitoring, giving flexibility in design
- System parameters are stored within the Fluid Management System allowing for standalone operation
- Open-source interface, libraries and example code allows simple integration into customer systems
- Fluid Management software supplied with the system allows a high level of control to meet application requirements
- Brand customisation for both the main body of the Fluid Management System and software enables a bespoke, more integrated feel to the product and bolsters customer servicing and spares channels.



Learn more at megnajet.com