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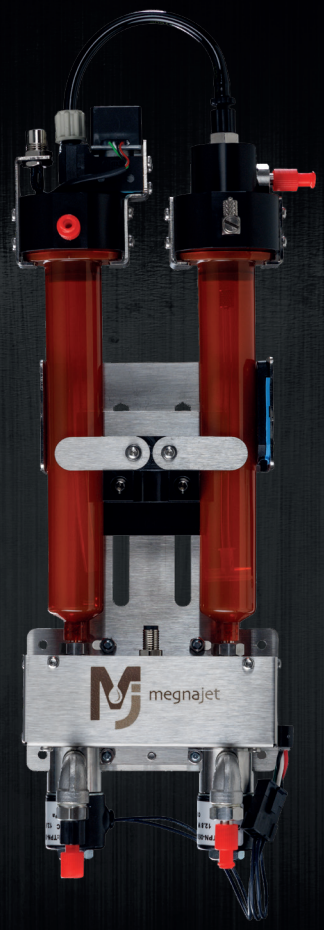

Labjet LFR

Fluid Management System

The Labjet LFR is a syringe-based low flow recirculating fluid management system. It is ideal for evaluating small volumes of fluids in a laboratory environment with industrial components.

The technology in the Labjet LFR automatically controls the printhead meniscus pressure as the fluid level changes. This enables accurate pressure control at the printhead and makes the system simple and repeatable in operation.

The Labjet LFR is compatible with all industrial low flow printhead types.

Usage

Laboratory

Recirculating

Highlights

Easy to maintain

Syringe-based design and simplified fluid path allows for easy cleaning, fast enabling and economical fluid changes.

Ideal for high value fluids

The low fluid volume and ease of maintenance reduces the cost and potential wastage of high value fluids.

Industrial components

Easily transfer to a larger Megnajet system using our common technology platform.

Learn more at **megnajet.com**

Issue 5 April 2023 English

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Technical specifications

Physical

Product dimensions (WxDxH)	• 123 x 58 x 296 mm
Syringe volume	• 25 ml
Fluid connections	• Luer connections
Main Unit weight (Man shut off)	• 0.75 kg
Main Unit weight (Auto shut off)	• 1.0 kg
Controller weight	• 0.5 kg

Electical

Supply voltage	• 24V
Supply power rating	• 1 - 3.5 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 adaptor. Supplied with Megnajet optional communication kit.

Operating conditions

Operating temperature	• 5 - 65°C (40 - 149°F) when supplied with additional heater
Storage temperature	• 5 - 100°C (40 - 212°F)
IP rating	• IP50

Connectivity to printhead

Printhead type	• Loe flow or pressure fed
Number of printhead supported	• 1
Maximum flow rate	• 150 ml per minute
Maximum in feed pressure	• -400 mbar (PV option 800 mbar)
Maximum return pressure	• -800 mbar
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
- Pressure fed option available for low duty testing.

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
- 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.

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