

Megnajet manufactures an easy to integrate external inline heater suitable for use with all of our fluid delivery systems. The high efficiency heater is capable of heating fluids up to 65°C as standard (higher temperatures are available depending on the application).

For many of our customers, the ability to heat fluids is necessary for the perfect print. Although the HV and CIMS II range of products contain heating elements as standard, heat loss through the pipework and print head can lead to an unsatisfactory result. By fitting the Megnajet high efficiency heater close to the print head, fluid is flash heated to the required temperature before

### Why is an external inline heater needed?

Due to the complex rheology of modern inkjet fluids, it is essential that they are delivered to the print head at the correct temperature; thus ensuring the best jetting performance.

Whilst some of Megnajet's ink delivery systems already incorporate internal heaters, due to the heat losses on longer pipe runs it is sometimes necessary to augment these heaters with an inline heater.

The Megnajet LC and LCLFR systems do not have internal heaters fitted and therefore the Megnajet external inline heater is offered as an option for those who require temperature controlled fluid delivery.

### About the external inline heater

The heater is available in with a choice of material- aluminium (typically for oil based and UV fluids) and 316 stainless steel (typically for use with water based and FDA fluid applications), The heater is manufactured with a complex internal structure which gives a large internal surface area. This means that the heating element is able to efficiently heat the fluid even when high flow rates are being used in recirculating systems. The heaters are fitted with a precision thermocouple to measure the temperature.

### Controlling the external inline heater

All of Megnajet's controllers are able to control the external heaters by reading the temperature from the thermocouple and using a PID control system which in turn switches the heating element on and off as required. This ensures the temperature is controlled to 0.5 °C of the setpoint.

The controllers incorporate a safety setting that disables the heater until fluid recirculation has started. This prevents temperature ageing of the fluid held within the heater block.

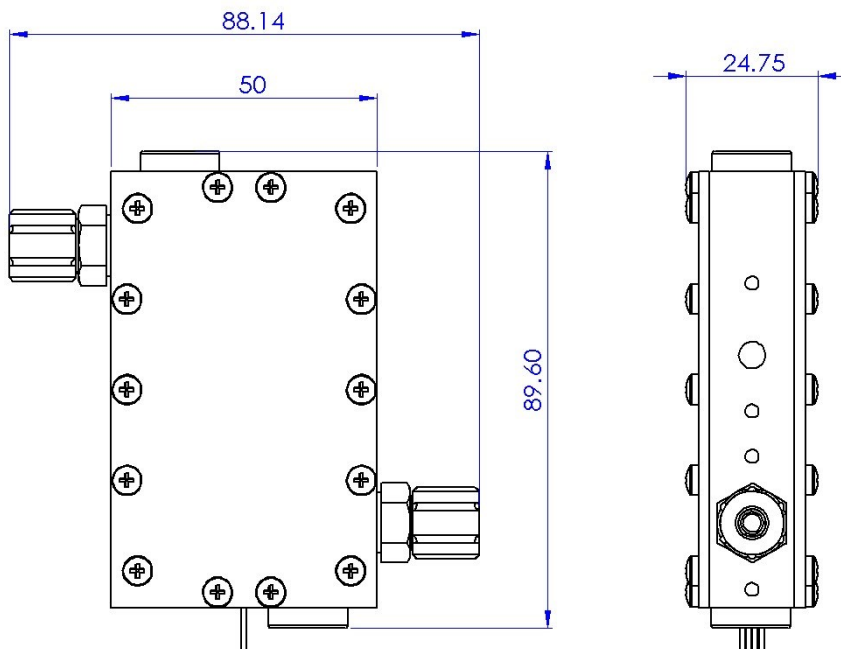
## Technical Specification

Physical	
Weight	0.290kg
Failsafe chamber-maximum volume	30ml
Physical dimensions	190mm x 55mm x 55mm
Fluid connections	8mm OD 6mm ID standard

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

Compliance	
CE compliant	
RoHS compliant	
WEEE compliant	

Electrical and control	
Supply voltage	24 V
Supply current	4A (100W version for HV or CIMS II) 3A (75W version for LC or LCLFR)



For further details, please contact us via our website or the email address below.

[www.megnajet.com](http://www.megnajet.com)

[enquiry@megnajet.com](mailto:enquiry@megnajet.com)