StarFire™ SG1024 1 Color Aqueous Printheads

1024-Channel Inkjet Printhead

StarFire SG1024 1C Aqueous Printheads

The StarFire SG1024 1C Aqueous printhead family is a breakout inkjet innovation for high performance printing and decorative applications. It is purpose-built for today's demanding high-speed scanning and single-pass industrial system designs. It is an easy to integrate, high performance, drop-on-demand printhead for single-color operation at resolutions up to 400 dpi. A robust and repairable construction makes it ideal for Textile, Wide Format and Commercial Printing and Decorating.

Combining superior jetting performance with a high nozzle packing density in a compact, self-contained unit, the StarFire SG1024 uses field proven materials to deliver a long service life with consistent and reliable output.

Each SG1024 printhead has 1024 independent channels arranged in 8 rows in a single nozzle plate for resolutions up to 400 dpi. All 1024 nozzles can be fired simultaneously or individually.

Equipped with a singular, durable, collar mounted, metal nozzle plate to withstand abrasion and resist damage, it is removable for cleaning or replacement. The printheads are available in extra small, small, medium and large drop sizes. Fujifilm Dimatix' breakthrough VersaDrop allows multiple fixed drop sizes in binary mode and grayscale capability from one printhead, with no loss to productivity. In binary operating mode, the SG1024 1C Aqueous printheads are designed to eject adjustable drop sizes from 6 up to 200 picoliters and can support grayscale levels as defined by the user's control electronics.

The StarFire SG1024 Aqueous printheads are compatible with solvent, UV-curable, and aqueous based inks and maintenance fluids. Using RediJet technology, the SG1024 continuously recirculates inks through the printhead at the nozzle and refill chamber to increase open time, reduce downtime and improve startup, especially for highly pigmented and fast drying inks. RediJet allows StarFire printheads to be quickly and easily primed with minimal ink waste thereby increasing the inherent productive capacity of the printing system by reducing maintenance times and associated costs.

The StarFire SG1024 printhead has simplified interfaces. The electrical interface consists of one 60-pin connector located topside for power, ground, data, control signals and fire pulse. Two fluid connections facilitate easy priming, flushing and continuous ink recirculation and connect to an ink supply via Luer fittings.

Heating configuration includes an internal heater/thermistor for precise control of ink viscosity at temperatures up to 50°C. Precise registration points enable drop-in alignment with customer provided mounting features, reducing set-up and alignment costs during printhead replacement and also allow multiple printheads to be accurately arrayed into print bars for wide width, higher resolution and multi-color printing devices.

Features:

- Single-color operation
- Robust and repairable construction
- Drop sizes ranging from 6 to 200 picoliters
- 1024 individually addressable jets
- Incorporates VersaDrop™ binary and grayscale jetting
- Continuous ink recirculation with RediJet™
- Removable/replaceable collar mounted nozzle plate

FUJIFILM Value from Innovation

Dimatix

FUJIFILM Dimatix is the world leader in the manufacture of drop-on-demand inkjet products and technologies with over 1,000 patents since its inception as Spectra Corporation in 1985. We provide exceptional products and customer support.

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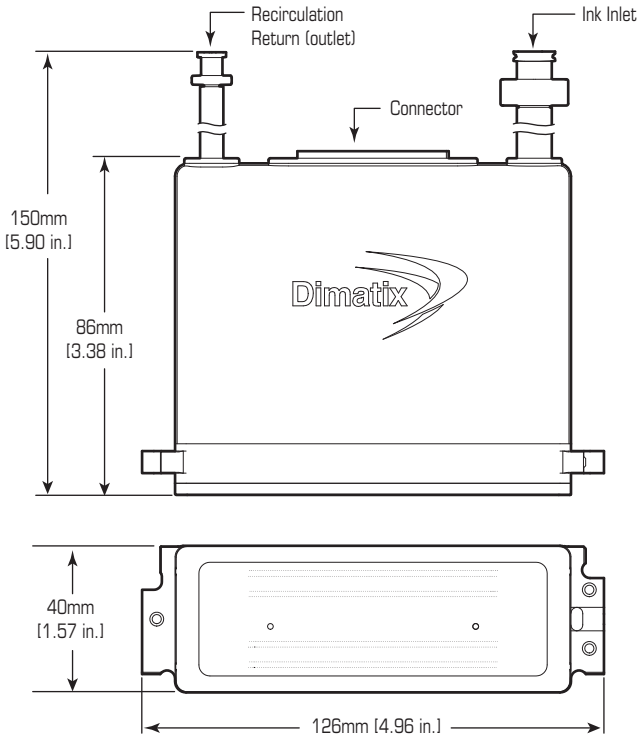
Product Data

Parameter	StarFire SG1024 1C Aqueous Printheads
Number of addressable Jets per module	1024
Print width	64.96 mm [2.55 in]
Native resolution	400 dpi
Native drop size/largest drop size	See chart below
Versadrop Max Productivity	See chart below
Firing frequency	See chart below
Inkjet operating temperature range	Up to 50 °C [122 °F]
Nominal fluid viscosity	8-20 cP (10-14 cP recommended)
Compatible jetting fluids	UV-curable, organic solvents, and aqueous inks
Nozzle Plate technology	Metal
Printhead heat type	Integrated heater, thermal transfer
OEM accessible non-volatile memory	64 byte rewriteable
Integral temperature sensor	Included

Physical Characteristics



StarFire SG1024 1C Aqueous Models

StarFire SG1024 1C Aqueous Models	XSA	SA	MA	LA
Native Drop Size	6 pl	12 pl	30 pl	80 pl
Largest Drop Size	20 pl	33 pl	80 pl	200 pl
VersaDrop Max Productivity	300 ng-kHz with drop sizes between 6 and 20 ng	600 ng-kHz with drop sizes between 12 and 33 ng	900 ng-kHz with drop sizes between 30 and 80 ng	1500 ng-kHz with drop sizes between 80 and 200 ng
Firing Frequency	Up to 50 kHz	Up to 50 kHz	Up to 35 kHz	Up to 20 kHz

Product data presented above are for guideline purposes only. For design and engineering work using this product, please contact Dimatix Technical Support for the appropriate Product Manual containing full Product Specifications.

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