

RICOH MH5420/5440

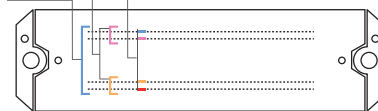
This is a print head with 600 dpi native resolution.
Also capable of jetting up to 4 colors.



Single-pass 600dpi high-resolution printing and support for multiple ink colors

With 1,280 nozzles configured in 4 x 150dpi rows, this head achieves high-resolution 600dpi printing. Additionally, the ink paths are isolated, enabling a single head to jet up to four ink colors.

One color : 150dpi x 4 rows/color → 600dpi
Two colors : 150dpi x 2 rows/color → 300dpi
Four colors : 150dpi x 1 row/color → 150dpi*



* Where MH5440 is used.

Support for grey-scale

Achieves excellent gray-scale rendering with up to 6 scales per dot.

*Although controls for up to 6 scales are provided, actual jetting depends on ink characteristics.

Excellent durability and extended service life

Ricoh inkjet print heads are made of stainless steel. These heads are highly robust and offer excellent anti-corrosion properties for multiple inks, resulting in excellent durability and extended service life.

Support for different inks

With its built-in heater, these heads are capable of jetting high-viscosity inks. Additionally, the ink path is isolated from the actuator (piezo elements), i.e. no ink contact.

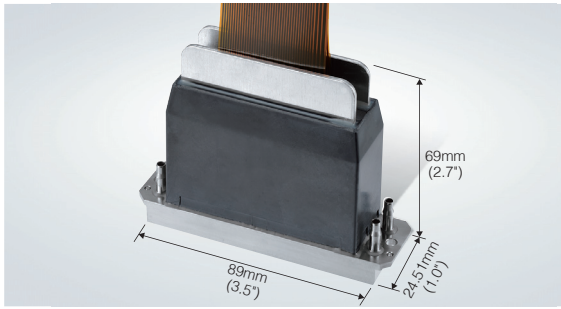
Variable drop volume capability

The multi-drop capability allows the creation of a range of drop sizes enabling grey-scale printing.

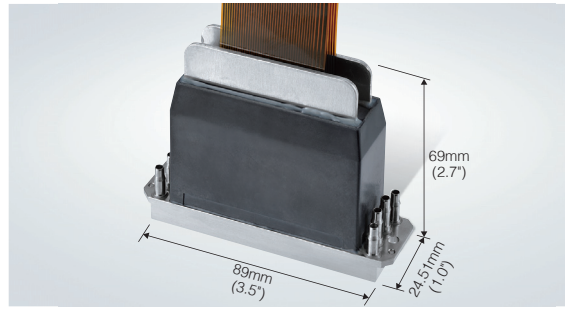
Inkjet head with support for multiple nozzles and colors

Choose from two-color or four-color models to suit your application.

MH5420 (two-color model)



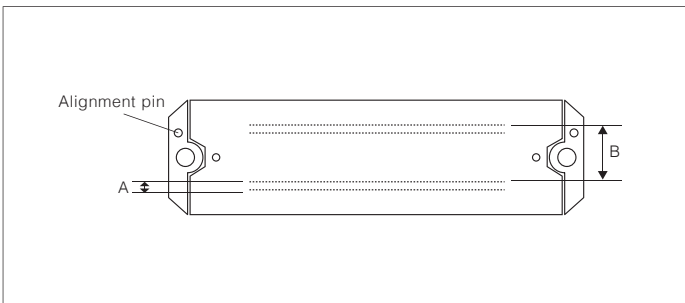
MH5440 (four-color model)



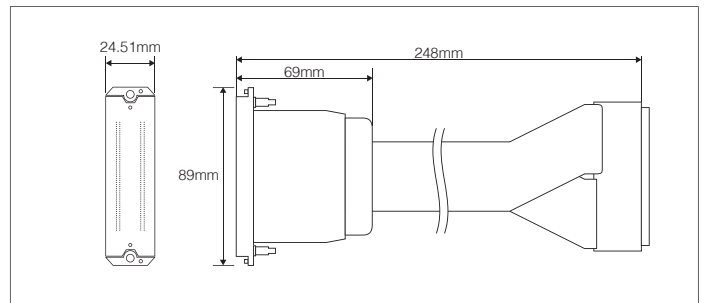
MH5420/5440	
Method	Piston pusher with metallic diaphragm plate
Print Width	54.1 mm(2.1")
Number of nozzles	1,280 (4 x 320 channels), staggered
Nozzle spacing (4 color printing)	1/150"(0.1693 mm)
Nozzle spacing (Row to row distance)	0.55 mm
Nozzle spacing (Upper and lower swath distance)	11.81mm
Compatible ink	UV, Solvent, Aqueous, Others.
Total printhead dimensions	89(W) x 69(D) x 24.51(H) mm (3.5" x 2.7" x 1.0") excluding cables & connectors
Weight	155 g
Max.number of color inks	MH5420 : 2 colors / MH5440 : 4 colors
Operating temperature range	Up to 60°C
Temperature control	Integrated heater and thermistor
Life	100 billion actuations per nozzle
Jetting frequency	Binary mode : 30kHz / Grey-scale mode : 20kHz
Drop volume	Binary mode: 7pl / Grey-scale mode : 7-35pl *depending on the ink
Viscosity range	10-12 mPa·s
Surface tension	28-35mN/m
Grey-scale	6 levels
Total Length	248 mm (standard) including cables
Ink port	MH5420 : Yes (standard), No (Optional) / MH5440 : Yes (standard)
Number of ink ports	MH5420 : 2 x dual ports / MH5440 : 4 x dual ports
Alignment pin direction	Front (standard)

* Results obtained from continuous jetting test using standard Ricoh test ink.

■ Nozzle



■ External dimensions



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