

# RICOH MH3820

Industrial Inkjet Printhead



Ricoh's next-generation, ultra-compact printhead enables cost-effective coding and marking with high uptime and a long life.

### Maximising up-time and maintaining print quality.

A powerful piezo delivers drop speeds of over 10 m/s, enabling printing gaps of more than 10 mm. Combined with its stainless-steel design, this delivers long life and industrial robustness, reducing downtime caused by maintenance and replacement. The enhanced print capability of the printhead allows print quality to be optimised across a wide range of print modes, covering printing requirements from small 6 pt text to large 1D and 2D codes, as well as graphics spanning the full print height.

### Great flexibility and optimisation possibilities.

At only 13 mm deep and 74 mm tall, the compact size enables easy integration into compact printers, making it suitable for use in a wide range of challenging production lines. The 108 mm print height is ideal for standard label replacement and is delivered through two closely packaged nozzle rows. Each nozzle row can support a different colour, providing two-colour printing capability from a single printhead. The nozzle rows are continuous and closely aligned to maximise print quality, eliminating stitching zones and the print errors commonly associated with such arrangements.

## RICOH MH3820

Up to 108mm  
print height

Stainless steel metal  
construction

High gap 300dpi  
print modes

Delivering high performance and durability, with print flexibility at its core, the MH3820 is built on proven, market leading and next generation technologies.



### Electrical compatibility

The electrical interface is electrically compatible<sup>1</sup> with Ricoh MH52/53/54 printhead models, enabling the reuse of electronics and a wide selection of vendor options.

### Fluid flexibility

MH3820 is compatible with a wide range of inks, including oil-based inks for porous materials and UV and solvent inks for non-porous materials. Inks and fluids developed for Ricoh MH24/26/28xx printhead models are also compatible.

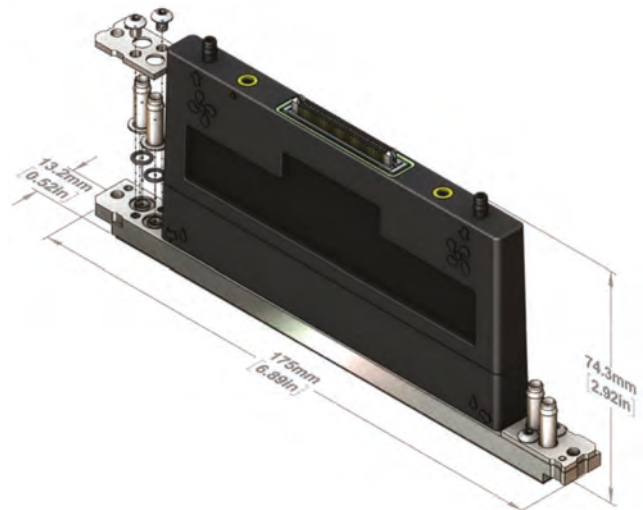
### Multi-zone heater

To ensure consistent print quality across all applications, four internal heaters maintain a uniform printhead temperature.

## RICOH MH3820 Specifications

Print height	108.2mm (4.26")
Number of nozzles (per row)	640 (320)
Nozzle spacing (within row)	1/75" (0.339mm)
Maximum colours <sup>2</sup>	2
Viscosity range <sup>3</sup>	10 - 14mPa.s
Compatible fluids <sup>4</sup>	Oil, UV, Solvent, Others
Nozzle-plate material	Stainless steel
Weight	185g (no barbs)
Grey levels <sup>5</sup>	3
Print resolution <sup>6,7</sup>	300dpi at up to 60m/min
Ink recirculation	Optional manifold

1. Excluding the requirement for temperature control via the heaters
2. Use of second colour will half the native resolution of the printhead
3. Ink and waveform dependant
4. Specific fluids may vary and must be individually tested
5. Line speed and print modes may limit or extend the number of grey levels
6. Print resolution given is determined by an asymmetric printing resolution of 150 x 600dpi
7. Print speed is ink and waveform dependant



For more information, visit:



**RICOH**  
imagine. change.

[www.ricoh-europe.com](http://www.ricoh-europe.com)

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The images in this brochure are not real photographs and slight differences in detail might appear, including in relation to colour. Not all services and solutions are available to all customers. Copyright © 2026 Ricoh Europe PLC. All rights reserved. This brochure, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of Ricoh Europe PLC.