

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.

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**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 compatible¹ 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	4.26"
Number of nozzles (per row)	640 (320)
Nozzle spacing (within row)	1/150" (1/75")
Maximum colours ²	2
Viscosity range ³	10 - 14mPa.s
Compatible fluids ⁴	Oil, UV, Solvent, Others
Nozzle-plate material	Stainless steel
Weight	185g (no barbs)
Grey levels ⁵	3
Print resolution ^{6,7}	150x600dpi
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

