Matthews Marking Systems™

MARKTEC™
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DATASHEET

VIAjet™ L1 SERIES 1

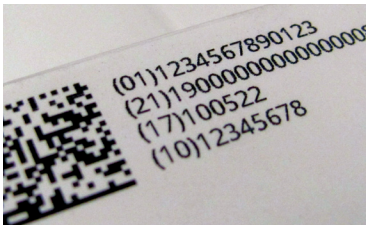
The VIAjet™ L1 high-resolution thermal ink jet printhead is a compact, high performance printhead offered by Matthews Marking Systems, making it ideal for primary coding and high speed commercial printing applications such as mailings, promotional coding, lottery coding and serialization.

Each L1 printhead prints a 1/2" (12.5mm) mark up to 600 dpi, allowing customers to mark and code at high speeds without sacrificing print quality or resolution. Due to its small footprint, the L1 integrates into OEM machinery with ease and is ideal for web applications.

The VIAjet™ L1 printheads connect to an L-Link, a compact, low profile and fully networkable control module. Capable of controlling up to four L1 printheads, each L1 can be remotely mounted up to 6 feet (2 meters) from the L-Link, making it easy to add printheads as needed.

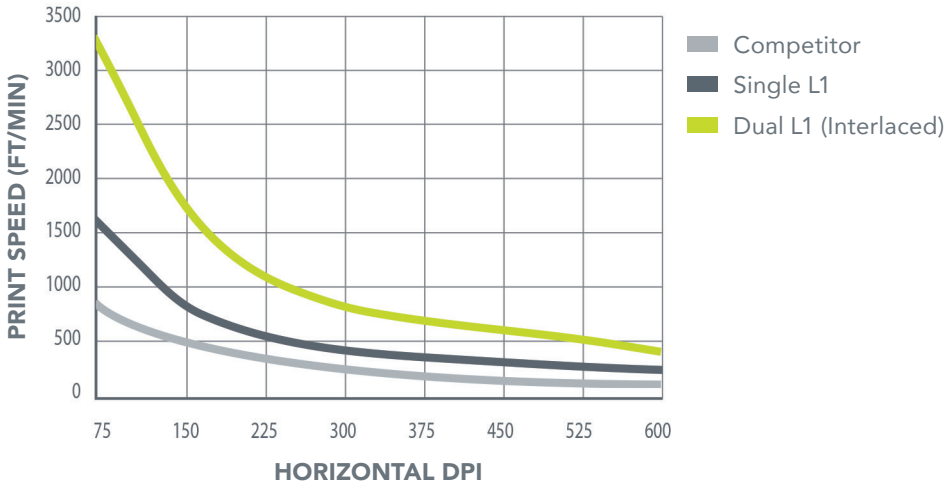
The L1/L-Link system is controlled by MPERIA®, Matthews' universal print controller, capable of networking and controlling multiple L-Links from a single location. The MPERIA® controller manages messages and settings for multiple printers across one or several production lines or packaging locations. MPERIA® can process large databases of dynamic data (up to 10 million unique entries) and print more than 500 unique 2D codes per second from one single controller.

MPERIA® is scalable, allowing for the addition of other printheads or print technologies, including competitor printers. One controller to control all of your marking requirements on primary, secondary and tertiary packaging.

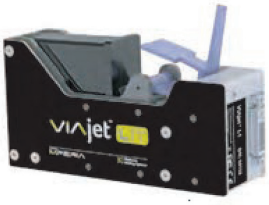


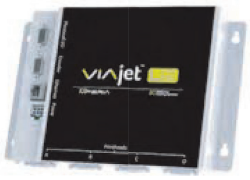
- Very high print speed, twice as fast as similar industry controllers
- Capable of stitching and interlacing printheads for increased resolution and speeds
- Cutting-edge water-based and fast-drying solvent-based ink for porous and non-porous surfaces
- Available in single use 40ml cartridges or large volume bulk

Print Speed VS DPI



VIAjet™ L1-Series Technical Specifications





Printhead (L1)

- Maximum Print Height: 12.5 mm (1/2")
- Print Resolution: 75W x 600H dpi to 1,200W x 600H dpi
- Print Speed 75 dpi: 488 m/min* (1600 ft/ min)
- Print Speed 150 dpi: 244 m/min* (800 ft/min)
- Print Speed 300 dpi: 122 m/min* (400 ft/min)
- Print Speed 600 dpi: 61 m/min* (200 ft/min)
- Prints Per Second: Over 500 unique QR codes per second with an MPERIA® Standard controller
- Print Direction: Horizontal to down
- Dimensions: 143 x 92 x 42 mm (5 5/8"L x 3 5/8"W x 1 5/8"H)
- Weight: 440 g
- Cable Length: Up to 2 m (6' 5 3/4")

Distributed Controller (L-Link)

- Dimensions: 33 mm x 172.5 mm x 256 mm (1 5/16"L x 6 3/4"W x 10 1/16"H)
- Weight: 1,400 g
- Number of Printheads: 1 to 4 per L-Link
- Interface to MPERIA™ controller: Ethernet
- Print Activator Inputs: 1 to 2 PNP/NPN for controlling up to 2 production lines
- Speed Encoder Inputs: 1x quadrature or 2x single channel RS422/TTL for controlling up to 2 production lines
- Electrical: 96-264VAC, 50/60Hz, 0.5-1A via adapter or 24VDC 90W
- Operating Temperature and Humidity: Ink dependent. Approximately 50–100°F (10–40°C), 10–95% RH (non-condensing) for water-based inks

Inks

- Ink Types: Multi-color water-based and alcohol/water-hybrid inks for porous substrates, alcohol- and MEK-based inks for non-porous substrates
- Cartridge Types: Single Use (SU) 40 ml cartridge or Quick Disconnect (QD) for 1 Liter Bulk Ink System

Connectivity

- Up to four L1 printheads can be connected to a single L-Link and multiple L-Links can be connected to a single MPERIA® controller over Ethernet for ultimate flexibility and scalability. Each L1 printhead can be designated as its own marker group in MPERIA® unique network encoder functionality ensuring synchronized data and accurate positioning of the marks. MPERIA® can connect to virtually any ERP, MRP or database system as well as control multiple printer technologies (TIJ, hi-res Piezo, DOD as well as third party CIJ, TTO and Print and Apply systems) on single or multiple production lines.

Unique Cost Saving Features

- Grayscaling of individual objects and TrueType, ink-saving fonts with individual settings for character width, letter and line spacing
- Up to 2 liters of ink per QD bulk ink cartridge compared to 400 ml for other TIJ systems
- High-contrast inks requiring less volume for the same readability compared to other TIJ inks

* Multiple printheads can be stitched together to achieve higher print speeds, effectively multiplying the speed/resolution for each additional printhead. NOTE: This feature require the Commercial Printing License enabled on the MPERIA® Controller.

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matthewsmarking.com

ABOUT MATTHEWS MARKING SYSTEMS
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