Coding & Marking Solutions

Inkjet Printer

UX Series

For over 40 years, Hitachi has developed and produced high-performance inkjet printers based on the well-proven Continuous InkJet (CIJ) principle for industrial marking.

Hitachi Industrial IJ printers are high-speed printers adopting a non-contact printing method, ideal for a wide range of applications. They are capable of applying best before dates, logos, barcodes, lot numbers and data matrix codes, which makes the new UX-Series the perfect solution for both complex and standard applications.

High Reliability

Hitachi Products are renowned for being extremely reliable in harsh environments. All functionally critical parts are manufactured in-house. The use of Hitachi's own components reinforces the high quality levels, reliability and excellent value for money.

Cost-Effective

The new economical ink recovery technique achieves industry-leading levels of make-up consumption and the very low maintenance costs minimize the total cost of ownership.

Global Sales & Service Network

Are you looking for a proven global company that can work with you at a local level? Hitachi offers a global sales and service network when marking, coding and traceability challenges demand a coordinated answer. For each of your locations, and across your entire organization we will champion your goals by providing international consistency, global perspective, broad expertise and coordinated service with dedicated contacts. Our global team applies its worldwide technical expertise to your unique challenges in a consistent way. Tangible deliverables and proven solutions are results of our business analysis and project implementation. In addition, cross-border project management and coordination between suppliers, OEM's and end-users are part of our deliveries. You gain more visibility and save time and money.

About the UX Series

EFFICIENT INK RECOVERY

INTUITIVE PRINT CONTROL

INTELLIGENT FLUID CARTRIDGES

DURABLE PRINTHEAD

RELIABLE CIRCULATION SYSTEM

SIMPLE FLUID MANAGEMENT

The Hitachi UX Series is the clear leader for your non-contact printing needs

The UX Series improves the existing, reliable Hitachi continuous inkjet products and is versatile enough to provide industry-leading marking on food, beverage and dairy products, health and beauty products and a variety of containers from lip balm tubes to bag printing and oversized PVC piping.

Simplicity

The Hitachi UX Series come with the possibility of two fluid management systems:
Cartridge or pour-in option allows to customize your inkjet printer to fit your business' needs.

Mess-free, Mistake-proof Fluid Refills

Intelligent fluid cartridges reduce the possibility of hazardous fluid spills during refill. Shaped differently, the ink and make-up cartridges are easily identifiable as well as sized to fit in each respective receptacle.

Simple Economical Disposal

Ink and makeup cartridges are good to the last drop, and drain fully into their respective reservoirs. Complete fluid evacuation allows ink and makeup containers to be disposed of easily instead of incurring costly hazardous disposal expenses.

Stay informed

On-screen icons provide simple, visual feedback to an operator. Ink and makeup solution level gauges show the current fluid level and indicate when it's time to replace ink. This allows for more efficient ink usage, reduces waste and further contributes to cost reduction.

Flexible filling options

In addition to the clean and safe cartridge systems, in some regions a pour-in printer configuration is available.
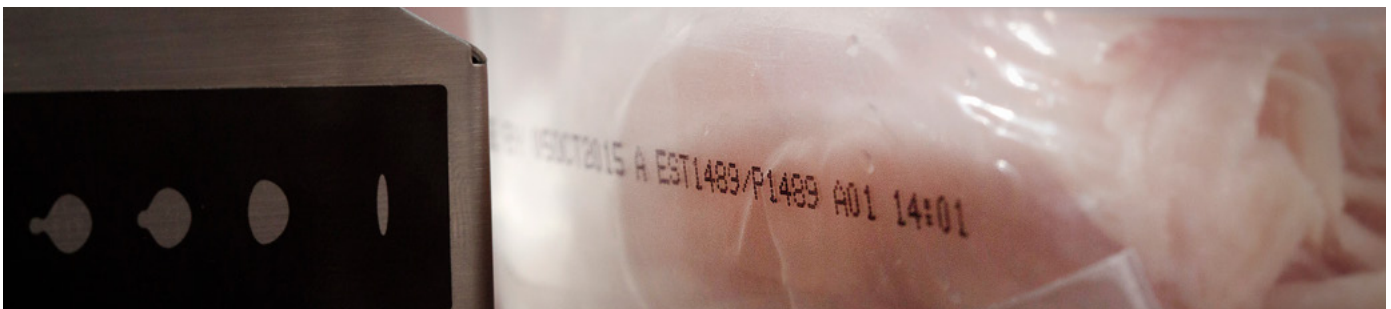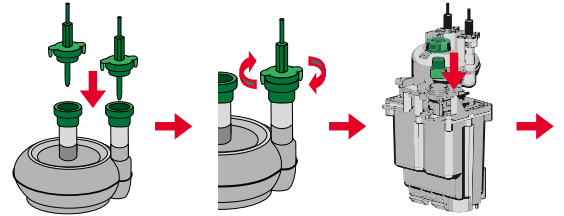
Tool-less Filter Replacement

Ink filters can be replaced without the use of tools or a technician, resulting in virtually zero downtime for easy maintenance. In comparison to traditional printers, no more mandatory time based failure due to machine operation.

(Original Hitachi patent: EP 226 1037 A1 / EP 230 5470 A1)

RFID Recognition**

Error reduction is key to increased uptime and that's why the UX Series now features RFID* recognition for ink and make-up replacement.
Use RFID recognition to scan each bottle of ink and makeup solution to reduce errors as well as dreaded downtime for your printer.

* Radio-frequency identification
** Not available in some countries

IC Card with RFID Function

With the new Hitachi IC Card* any login information and print data can be managed fast, easy, and safely.
User Login
By scanning the IC Card, only the registered user can login quickly without entering a password. Each user operation can be limited to prevent human error.
Print data selection
By scanning the IC Card the print data can be quickly called up. Prevent calling up incorrect data which may happen with manual operation.
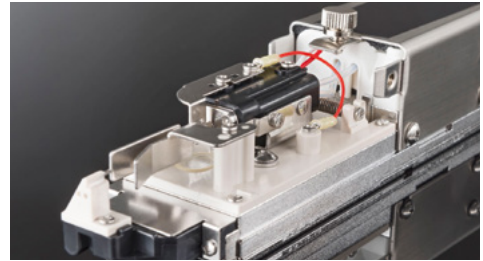* Option

Versatile Durable Print Head

High Quality Components

HQ The UX Series printhead is built to last, keeping your marking and coding up and running. Open up the printhead and you'll see high-quality Hitachi parts that stand up to the harsh environments your printer runs in reducing your downtime and increasing your printer's efficiency.

Durable Ni-Cr Printhead

Ni-Cr The UX Series printhead is ready to work wherever you need it most. The UX Series features a new nickel-chrome* finish, giving it exceptional corrosion resistance and increasing the printhead's lifespan in demanding environments including wash-downs and exposure to caustic chemicals.
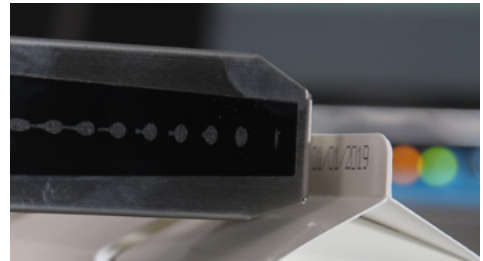
* partly Ni-Cr

Versatile Tapered Print Head

Getting the printhead as close as possible to the product it is marking is the name of the game in non-contact printing and the UX series' tapered printhead design allows it to get millimeters away from products - helping it achieve a higher quality print than ever before.

Flexible Six-line Print

A single UX printhead can now print up to six lines of text by employing an innovative print control system. Also available in the UX Series is Hitachi's industry-first interlaced drop control system, resulting in the highest quality code available regardless of print height.

Reliability

Worry-free Integration —
Designed for harsh Environments

The UX model printer is IP-65, so it can be integrated into a variety of production environments without modifying current production processes such as wash-down procedures. The UX can operate in temperatures as low as 32° F (0° C) and up to temperatures as high as 113° F (45° C) which means that the UX model is able to tolerate marking in a wide variety of environments - making it an ideal choice for most facilities.

High temperature
up to 113°F (45°C)

Wash-down

Durability

Low temperature
down to 32°F (0 °C)

Dusty
environment
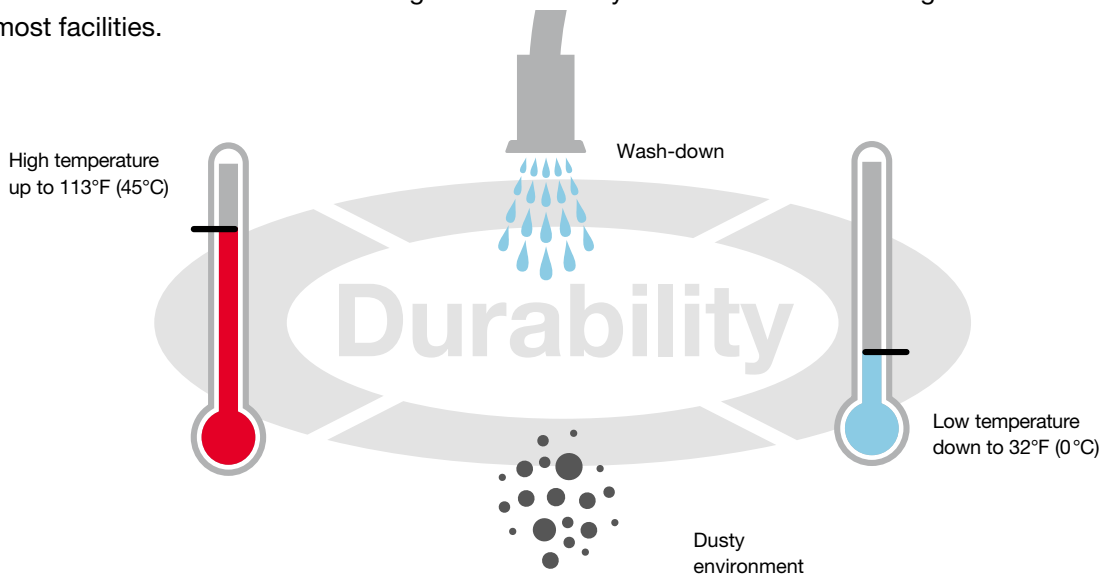
Accessories

Hitachi offers a wide variety of high-quality accessories for its UX Series, including brackets and mounting options to help integrate your UX Series continuous inkjet printer into your existing work environment seamlessly.

Intuitive Machine Interface

Intuitive User Interface

A 10.4-inch TFT LCD touch-panel screen provides a wide, easy-to-see viewing angle and intuitive operation. In addition, when changing print messages, a preview function allows the operator to verify on-screen what message will be changed to help avoid erroneous printing.

On-Screen Guidance

The UX Series features an integrated, easy to access troubleshooting guide, helping operators easily find answers to common issues and reducing downtime due to simple problems.

Keep and Collect your Message

Messages can be easily backed up onto a USB flash drive for convenient transferring to multiple printers.

Convenient Remote Management

Ethernet is a standard feature on UX machines.* In addition, open network is supported, allowing easier system integration. Collective management via a host system enables two or more devices to be easily networked.

*UX-B excluded

Network

UX Series   *UX Series*   *UX Series*   *UX Series*
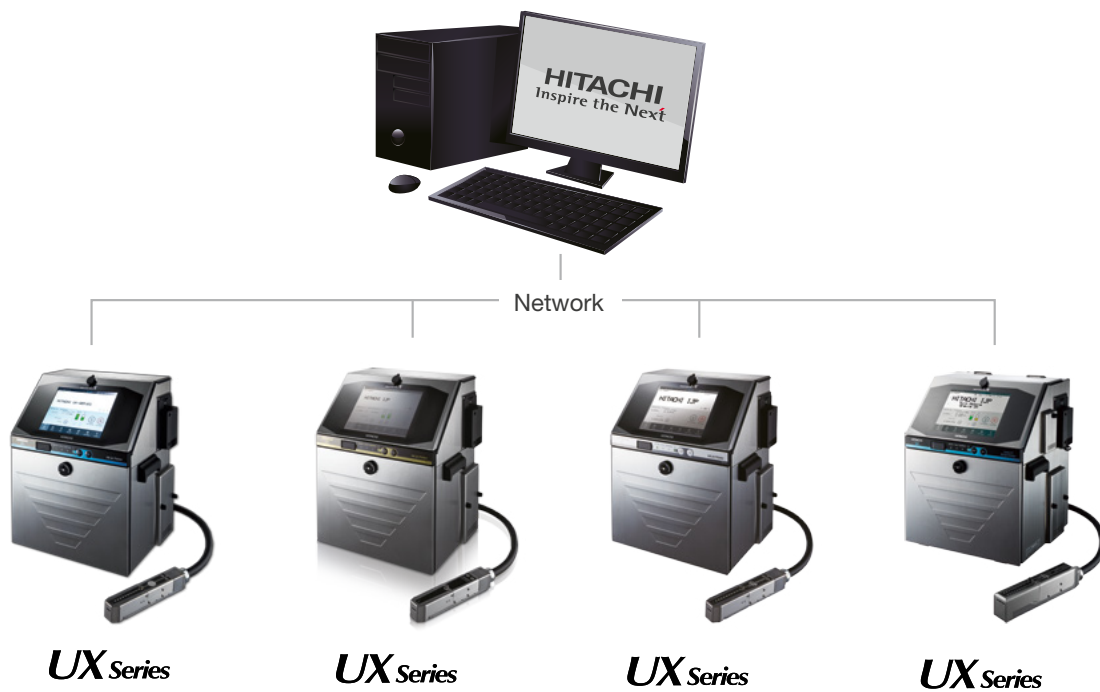
Connecting To The Future - Industry 4.0 Ready

Software Defined Controller

In effect SDC adds a new, intuitive way for our customers to communicate with our printer. SDC has the ability to build a bridge directly to your corporate ERP or other business management system. In traditional production environments, connecting the IT business systems with the factory floor poses many challenges. This often results in a complicated mix of proprietary systems with significant performance and support issues. However now with SDC, Hitachi is providing a direct bridge between the IT layer and the factory floor operation.

Examples of this: An IT professional could easily mine data necessary for business management from printers located on the factory floor without having intimate knowledge of the printers internal processes. In short, SDC can be used to seamlessly implement business logic.

Immediate HMI Response

Upgraded processing power allows the printer* to react to operator inputs instantly, giving the user a lightning fast experience. The intuitive guided interface will feel familiar from the first use.

*Available for UX-D (D161W, D151W) and UX-P (UX-P161W)

Modern Communication Protocols

By employing modern open protocols such as OPC-UA, Hitachi's printers are ready for the upcoming Industry 4.0/IoT revolution. This open style data connectivity enables our printer to be compatible with virtually any networked platform regardless of OS. In addition, the latest UX printers* come equipped with Ethernet/IP, OPC-UA, Modbus, and Serial RS-232. Hitachi is currently the first CIJ manufacturer to gain ODVA approval for Ethernet/IP.

ODVA is a trade and standards development organization, Michigan USA

Improve Operations, Quality, and Transformation with IoT Analytics

Hitachi is one of the few companies in the world with decades of experience and deep expertise in both OT (operational technology) and IT. In the industrial arena, we're developing data-driven smart manufacturing and maintenance solutions that are rapidly displacing traditional processes.
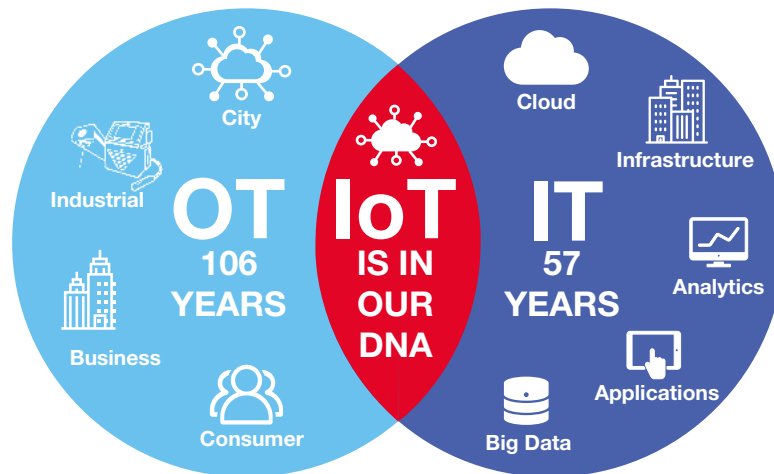
*Available for UX-D (D161W, D151W) and UX-P (UX-P161W)
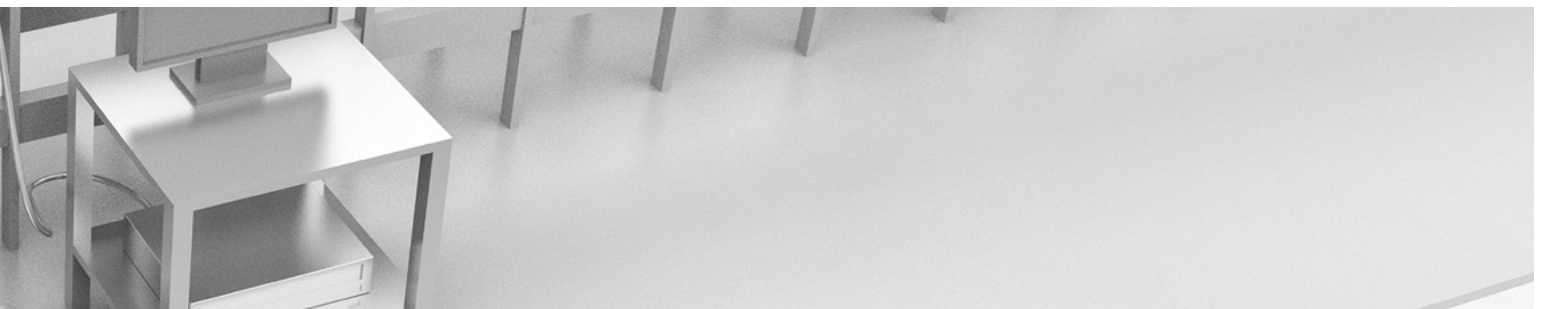
Case Studies

Learn how companies like yours are benefiting from Hitachi innovation:

BAKER CHEESE:

THE CHALLENGE: When you run as much product as Baker Cheese does, consistency and reliability become essential in keeping the sticks of string cheese coming down the conveyor. Baker Cheese produces nearly 3 million sticks of string cheese per day which means the costs of downtime are enormous. Their previous coding equipment wasn't able to deliver the print consistency needed to complement their high-quality cheese, so they found themselves needing an easy-to-use printing solution to produce high value prints within the small print window that's part of the Baker Cheese intermittent motion production process.

THE SOLUTION: A two-week head-to-head trial with multiple competitive printers proved that Hitachi's continuous inkjet printers were able to meet and exceed Baker Cheese's printer needs the best. Baker Cheese chose IMS Partners to supply RX Series Continuous Inkjet Printers and IMS was able to assist Baker Cheese in developing a print solution that flawlessly fit into their current production processes, allowing Baker Cheese to decrease downtime while increasing consistency of printing.

THE RESULTS: Not only did Hitachi Continuous Inkjet Printers decrease downtime, but they virtually eliminated it. With the improved output, the new Hitachi printers reduced printer costs while lifting the average into the exceptional. This increased business efficiency helped fortify Baker Cheese's position as one of the top string cheese producers in the US.

ROCKY MOUNTAIN SPICE COMPANY:

THE CHALLENGE: Due to the variety and volume of products that are packaged at Rocky Mountain Spice, the efficiency of their daily operations is closely monitored. One area that caused a lot of downtime was their marking and coding equipment. The interface was difficult to use when switching over a product line and repairs were often needed following continuous usage of the equipment. Paul Courtright, the maintenance manager, had worked with many inkjet manufacturers over the years, and was determined to find a better solution.

THE SOLUTION: After continued trouble with their inkjet printers, Paul reached out to their local Hitachi distributor, Colorado Scale Center, who he had worked with previously on other equipment. The Hitachi RX2 Series Continuous Inkjet Printers were highly recommended and a demo unit was made available. Rocky Mountain Spice quickly realized how easy the Hitachi was to operate, even on the production floor. During the two weeks of testing, the Hitachi RX2 required zero cleaning or maintenance, a huge step up from their previous printers.

THE RESULTS: The Hitachi RX2 Continuous Inkjet Printers helped to decrease downtime in a number of ways. Setting up each line before production is quick and easy with the intuitive user interface of the RX2 printers. Repairs and maintenance costs have virtually been eliminated due to the printer's durability and reliability. Since switching over to the Hitachi Printers, Rocky Mountain Spice has been able to focus on other priorities - delivering fresh, quality spices.

Print Samples

The Hitachi UX Series continuous inkjet printers represent the pinnacle of innovation in marking and coding technology, all while showcasing the Hitachi reputation for Reliability, Efficiency, and Ease of Use.
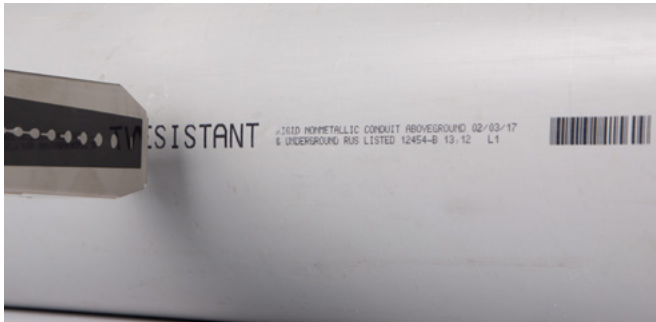
UX-B Model / UX-D Model
65μm — (Basic / Standard)

Font (Horizontal x Vertical)	UX Series			UX-D161W/WP (Standard)
5 x 5	1 LINE: 0123456789ABCDEFGH / 012345678	2 LINE: 012345678 / ABCDEFGHI	3 LINE: 012345678 / ABCDEFGHI / JKLMNOPQR	6 LINE: 0123456789 ...
5 x 7	1 LINE: 0123456789ABC / 0123456	2 LINE: 012345679 / ABCDEFGHI	3 LINE: 012345678 / ABCDEFGHI / JKLMNOPQR	4 LINE: 012345678 / ABCDEFGHI / JKLMNOPQR / STUVWXYZA
7 x10	1 LINE: 0123456789 / 012345	2 LINE: 01234567 / ABCDEFGH	3 LINE: 0123456789013456 / ABCDEFGHIJKLNOPQ / TUVWXYZABCDEGHIJ	
10 x 12	1 LINE: 0123456789ABC / 0123456789	2 LINE: 01234567890 / ABCDEFGHIJK		
12 x 16	1 LINE: 0123456789ABC / 0123456 01 ▒		2 LINE: 012 / ABC ▒	
18 x 24	1 LINE: 0123456789 / 0123456ABC			
24 x 32	1 LINE: 012345ABCD			
30 x 40	1 LINE: 012345ABCDEF			
36 x 48	1 LINE: 012345ABCD			

Standard Specifications

Item	Model	
	UX-B160W/WP (Basic)	**UX-D161W/WP (Standard)**
Nozzle Size	65µm	
Maximum number of print lines	Up to 3 lines	Up to 6 lines
Maximum number of print characters	Up to 240 characters	Up to 240 characters (Option: Up to 1,000 characters)
Font (Horizontal x Vertical) 4 x 5	-	✓
5 x 5	✓	✓
5 x 7(8), 9 x 7(8)	✓	✓
7 x 10	✓	✓
11 x 11	✓ (Chinese only)	✓ (Chinese only)
10 x 12	✓	✓
12 x 16	✓	✓
18 x 24	✓	✓
24 x 32	-	✓
30 x 40	-	✓
36 x 48	-	✓
Character height	2 - 10 mm	
Display & input device	WYSIWYG design display: TFT LCD (10.4" color), backlight provided input device: Touch panel, input sound provided	
Screen language (2 languages selectable)	English, Chinese, Korean, Thai, Vietnamese, German, French, Dutch, Italian, Spanish, Portuguese, Swedish, Danish, Greek, Russian, Czech, Polish, Arabic, Serbian, Turkish, Hungarian, Bulgarian, Catalan, Romanian, Finnish, Norwegian, Slovenian	
Maximum print rate (Character per second) (Font 5x5, space 1, 1 line)	Up to 1,148	Up to 1,148 (Option: Up to 2,296)
Standard characters	Alphanumeric (A-Z, a-z, 0-9), symbols (27) and space: Total 90	
User patterns	50 patterns each for dot matrix	200 patterns each for dot matrix (50 patterns for 30x40 and 36x48 fonts)
Print functions	Calendar, Count, Font mixture, Password	
Barcode printing	-	code39, ITF, NW-7, EAN-13, EAN-8, UPC-A, UPC-E, code128/EAN-128, GS-1 DataBar
2D printing	-	Data Matrix (Alphabet: 49 characters/Numbers: 98 characters), QR Code, Micro QR code
Message storage capacity	150 Messages	300 Messages [Option: Up to 2,000 Messages (depends on data content)]
Input signal	Print target detection, Rotary encoder pulse, (NPN/PNP Selectable))	Print target detection, Printing stop, Rotary encoder pulse, Reciprocative printing, Remote control (Run, Stop, High-voltage ON/OFF, Reset), (NPN/PNP Selectable)
Output signal	Print ready, Fault, Warning (NPN Only)	Print in progress or Print complete, Online (NPN/PNP Selectable), Print ready, Fault, Warning (NPN Only)
Data interface	Option (RS-232C at baud rates selectable up to 115,200bps)	RS-232C at baud rates selectable up to 115,200bps
Ethernet (Modbus/TCP, EtherNet/IP, OPC-UA)	-	IEEE802.3, 100BASE-T
External memory	USB for user data storage	
Printhead cable length / angle	4m (in-line/90 degrees)	4m (in-line/90 degrees; Option: 6m)
Operating temperature range	0-45°C/32 - 113°F (1069K Ink)*	
Operating humidity range	30-90% RH (no condensation)	
Power supply (Automatic voltage selection)	AC100-120/220-240V±10% 50/60Hz 120 VA	
Approval	CE, UL, cUL, C-Tick, FCC, ICES	
Dimensions (Width x Depth x Height)	15,75 x 12,6 x 20,75 in	
International protection	IP55	IP65
Approximate weight	60Lbs	

* Ink types and temperature are limited.
** Please consult your sales representative for further upgrade options.

LCD Touch Panel
Power Switch
20,75
Print Head Cable 157,48
15,75
12,6
Print Head
1,57
1,57
92,5
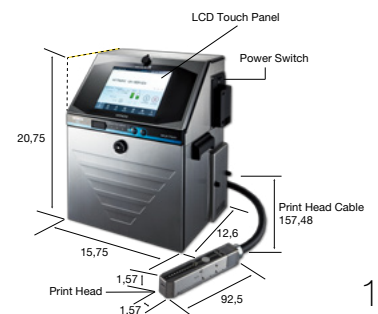
Note: Main unit dimensions do not include any projections.

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