

# TECHNICAL SHEET

## EMBOSSING AND INDENTING TECHNOLOGY FOR THE PRINTING OF FINANCIAL CARDS

The Evolis Privelio XT printing system uses embossing technology, also known as stamping, and indenting technology to personalize plastic financial cards.



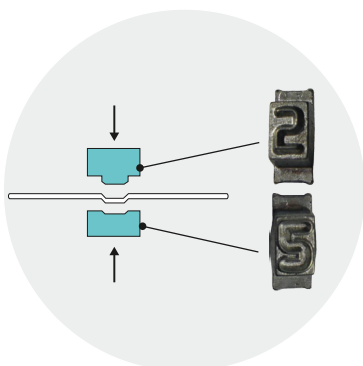
### FOCUS ON TECHNOLOGIES

#### Embossing

Embossing is a technique that consists of molding material mechanically and without heat, through the pressure of a raised die on a recessed die. This method produces a permanent relief on the surface of the card and increases its level of security.

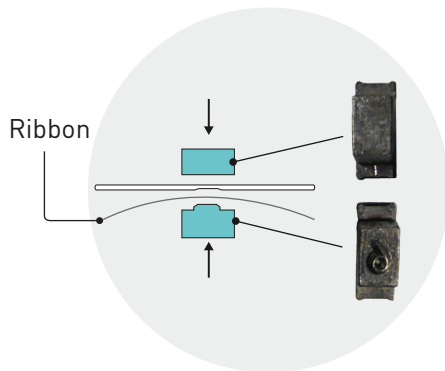
Embossing cards with Privelio XT is a 2-step process:

- Printing characters to be embossed through monochrome thermal transfer or color sublimation.
- Embossing characters already printed on the card.



Although it is possible to emboss characters anywhere on the card, it is usual for cards to be embossed in the bottom half of the card, and in accordance with ISO/IEC 7811-1: 2014 – Identification cards – Recording technique – Part 1: Embossing. This helps to ensure the embossing will not compromise any signature panel and or magnetic stripe on the back of the card.

Cards can only be embossed on one side.



### Indenting

Indenting is a technique that consists of molding material mechanically and without heat, through the pressure of a raised die on a flat die. This method produces a permanent indent on the surface of the card and increases its level of security.

Privelio XT comes with an indenting module as standard. The visual cryptogram (or verification number) can be customized in black or white on the back of the card.

Visual cryptograms are encrypted codes printed on credit cards. This is to ensure that an actual card exists for the card number provided by an individual in a remote transaction (e.g. purchases made online) to prevent fraudulent or unauthorized utilization.

For the personalization of cardholder data, the indenting can also be done on the front of the card.

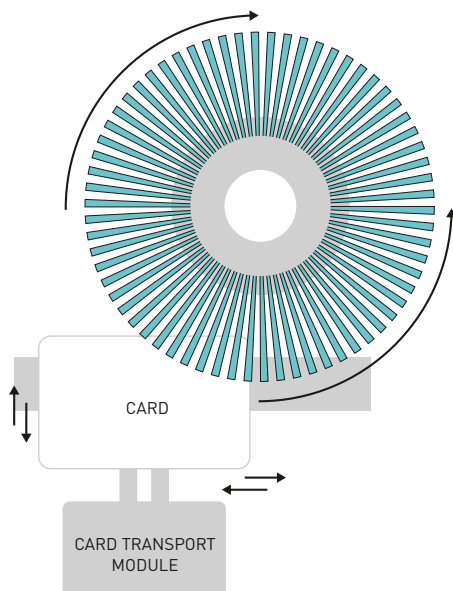
## SPECIFICATIONS OF THE PRIVELIO XT EMBOSSING AND INDENTING MODULE

Privelio XT carries out the embossing and indenting operation using a stainless steel daisy wheel.

The following characters are automatically stamped by this wheel:

- Standard Gothic (42 alphanumeric characters: A-Z 0-9 ., - / &) for the name of the cardholder and the expiration date
- Farrington 7B / OCR-7B (10 numeric characters: 0-9) for the card number
- OCR-B1 (10 numeric characters: 0-9) for indenting on the back of the card.

More character sets (e.g. OCR-B4 for embossing 42 alphanumeric characters, OCR-B1 for indenting 45 alphanumeric characters, etc.) are available as options, at an additional cost.

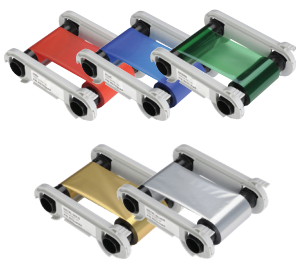


## MEDIA COMPATIBILITY

With Privelio XT, cards with the ISO CR80 - ISO 7810 (53.98 x 85.60 mm) format can be printed and embossed:

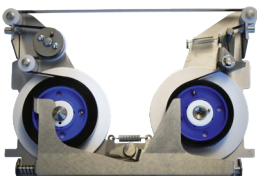
- PVC cards
- Composite PVC cards

## COUNTLESS POSSIBILITIES WITH EVOLIS HIGH TRUST® RIBBONS



Ribbon capacity for embossing:

- YMCKO ribbon: up to 300 prints/roll
- YMCKO-K ribbon: 200 prints/roll
- Monochrome ribbon in black: up to 2000 prints/roll
- Monochrome ribbons in red, green, blue: 1000 prints/roll
- Monochrome ribbons in gold, silver: 1000 prints/roll
- KO ribbon: 600 prints/roll
- SO-KO ribbon: 250 prints/roll



Ribbon capacity for indenting:

- Black ribbon: 71 meters / roll  
7 characters: up to 1,575 cards  
35 characters: up to 315 cards
- White ribbon: 71 meters / roll  
7 characters: up to 1,575 cards  
35 characters: up to 315 cards

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