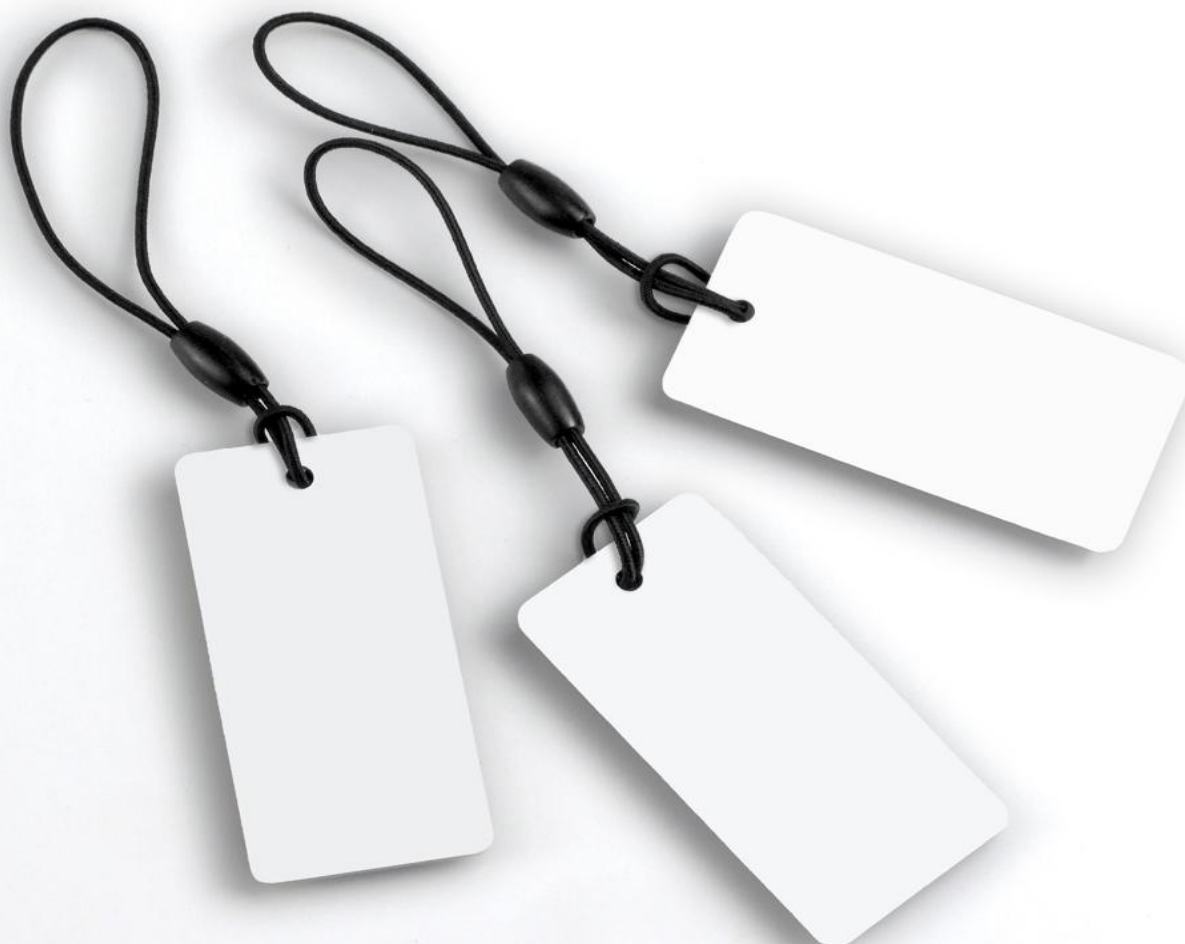




KF012 is an RFID key fob made of PVC, a flexible and ductile thermoplastic material with **high resistance to very high and low temperatures**. Designed with a hole for a string, it is rectangular and **the entire surface can be customised** using offset and pad printing, while serial numbering can be applied using laser and inkjet techniques. It is available in **LF, HF and combo (LF+HF) frequencies** and comes in

white.

## MARKETS

The **IP67** rating makes it resistant to dust and water, and can be submerged to a depth of one metre for twenty-four hours. Thus, KF012 is ideal for **access control in warm, damp environments such as gyms, swimming pools, hot springs or seaside establishments**, and also for access to various types of

hospitality facilities. It can also be used as an **electronic wallet to charge electric cars at charging posts**.



frequency 125 kHz

## RFID features

| Chip             | Memory                   | ISO Standard      |
|------------------|--------------------------|-------------------|
| EM4100 or GK4100 | 0 bytes - UID: 8 bytes   | -                 |
| EM4102           | 0 bytes - UID: 8 bytes   | -                 |
| EM4200           | 0 bytes - UID: 8 bytes   | ISO 11784 / 11785 |
| EM4550 or TITAN  | 128 bytes - UID: 8 bytes | ISO 11784 / 11785 |
| EM4305           | 64 bytes - UID: 4 bytes  | ISO 11784 / 11785 |
| ATA5577 or T5567 | 36 bytes - UID: 8 bytes  | ISO 11784 / 11785 |
| Q5 or 5555       | 33 bytes - UID: 8 bytes  | ISO 11784 / 11785 |
| HITAG1           | 256 bytes                | -                 |
| HITAG2           | 32 bytes                 | ISO 11784 / 11785 |
| HITAG S 2048     | 256 bytes - UID: 4 bytes | ISO 11784 / 11785 |
| HITAG S 256      | 32 bytes - UID: 4 bytes  | ISO 11784 / 11785 |
| SIC279           | 16/24 bytes              | ISO 11784 / 11785 |



frequency 13.56 MHz

## RFID features

| Chip                              | Memory                    | ISO Standard | NFC Standard                             |
|-----------------------------------|---------------------------|--------------|------------------------------------------|
| RF81                              | 1024 bytes - UID: 4 bytes | ISO 14443 A  | Not supported by majority of NFC devices |
| FM11RF08                          | 1024 bytes - UID: 4 bytes | ISO 14443 A  | Not supported by majority of NFC devices |
| RF005                             | 64 bytes - UID: 7 bytes   | ISO 14443 A  | Not supported by majority of NFC devices |
| RF32                              | 4096 bytes - UID: 4 bytes | ISO 14443 A  | Not supported by majority of NFC devices |
| MIFARE CLASSIC 1K EV1 S50         | 1024 bytes - UID: 4 bytes | ISO 14443 A  | Not supported by majority of NFC devices |
| MIFARE CLASSIC 1K EV1 S50 7 BYTES | 1024 bytes - UID: 7 bytes | ISO 14443 A  | Not supported by majority of NFC devices |
| MIFARE CLASSIC 4K EV1 S70         | 4096 bytes - UID: 4 bytes | ISO 14443 A  | Type 2 - tag compliant                   |
| MIFARE ULTRALIGHT EV1-1           | 48 bytes - UID: 7 bytes   | ISO 14443 A  | Type 2 - tag compliant                   |
| MIFARE ULTRALIGHT EV1-2           | 128 bytes - UID: 7 bytes  | ISO 14443 A  | Type 2 - tag compliant                   |
| MIFARE ULTRALIGHT C               | 144 bytes - UID: 7 bytes  | ISO 14443 A  | Type 2 - tag compliant                   |
| MIFARE DESFIRE EV1 2K             | 2048 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV1 4K             | 4096 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV1 8K             | 8192 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV2 2K             | 2048 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV2 4K             | 4096 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV2 8K             | 8192 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV3 2K             | 2048 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |
| MIFARE DESFIRE EV3 4K             | 4096 bytes - UID: 7 bytes | ISO 14443 A  | Type 4 - tag compliant                   |

|                         |                                                           |                         |                                          |
|-------------------------|-----------------------------------------------------------|-------------------------|------------------------------------------|
| MIFARE DESFIRE EV3 8K   | 8192 bytes - UID: 7 bytes                                 | ISO 14443 A             | Type 4 - tag compliant                   |
| MIFARE DESFIRE LIGHT    | 640 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 4 - tag compliant                   |
| MIFARE PLUS SE          | 1024 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| MIFARE PLUS 2K          | 2048 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| MIFARE PLUS 4K          | 4096 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| MIFARE PLUS X 2K        | 2048 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| MIFARE PLUS X 4K        | 4096 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| MIFARE PLUS EV2 2K      | 2048 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| MIFARE PLUS EV2 4K      | 4096 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| ATC1024-MV110           | 944 bytes - UID: 8 bytes                                  | ISO 15693               | Not supported by majority of NFC devices |
| ATC256-MV410            | 224 bytes - UID: 8 bytes                                  | ISO 15693               | Not supported by majority of NFC devices |
| ATC4096-MP311           | 4096 bytes - UID: 7 bytes                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| CTC4096-MP410           | 2984 bytes (advant) / 1002 bytes (prime) - UID: 4/7 bytes | ISO 14443 A             | Not supported by majority of NFC devices |
| CTC4096-MM410           | 2984 bytes (advant) / 1002 bytes (prime) - UID: 4/7 bytes | ISO 15693 - ISO 14443 A | Not supported by majority of NFC devices |
| EM4233                  | 256 bytes - UID: 8 bytes                                  | ISO 15693               | Not supported by majority of NFC devices |
| ICODE SLI-S             | 256 bytes - UID: 8 bytes                                  | ISO 15693               | Type 5 - tag compliant                   |
| ICODE SLIX              | 128 bytes - UID: 8 bytes                                  | ISO 15693               | Type 5 - tag compliant                   |
| ICODE SLIX2             | 316 bytes - UID: 8 bytes                                  | ISO 15693               | Not supported by majority of NFC devices |
| ICODE SLIX-S            | 160 bytes - UID: 8 bytes                                  | ISO 15693               | Type 5 - tag compliant                   |
| ICODE DNA               | 252 bytes - UID: 8 bytes                                  | ISO 15693               | Type 5 - tag compliant                   |
| MIM1024/PRIME           | 1024 bytes                                                | ISO 14443 A             | Not supported by majority of NFC devices |
| MIM256/PRIME            | 256 bytes                                                 | ISO 14443 A             | Not supported by majority of NFC devices |
| NTAG210                 | 48 bytes - UID: 7 bytes                                   | ISO 14443 A             | Type 2 - tag compliant                   |
| NTAG212                 | 128 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 2 - tag compliant                   |
| NTAG213                 | 144 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 2 - tag compliant                   |
| NTAG215                 | 504 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 2 - tag compliant                   |
| NTAG216                 | 888 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 2 - tag compliant                   |
| NTAG213 TT (TAG TAMPER) | 144 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 2 - tag compliant                   |
| NTAG413 DNA             | 32/128 bytes - UID: 7 bytes                               | ISO 14443 A             | Type 4 - tag compliant                   |
| NTAG424 DNA             | 416 bytes - UID: 7 bytes                                  | ISO 14443 A             | Type 4 - tag compliant                   |
| ST25TB512               | 64 bytes - UID: 8 bytes                                   | ISO 14443 B             | Type 4 - tag compliant                   |
| ST25TB04K               | 512 bytes - UID: 8 bytes                                  | ISO 14443 B             | Type 4 - tag compliant                   |
| ST25TB02K               | 256 bytes - UID: 8 bytes                                  | ISO 14443 B             | Type 4 - tag compliant                   |
| TAG-IT 256              | 32 bytes - UID: 8 bytes                                   | ISO 15693               | Type 5 - tag compliant                   |

|           |                           |           |                                          |
|-----------|---------------------------|-----------|------------------------------------------|
| TAG-IT 2K | 256 bytes - UID: 8 bytes  | ISO 15693 | Type 5 - tag compliant                   |
| MB89R118  | 2000 bytes - UID: 8 bytes | ISO 15693 | Not supported by majority of NFC devices |



frequency 125 KHz + 13.56 MHz

## RFID features

| Chip                               | Memory                                                               | ISO Standard                    | NFC Standard                             |
|------------------------------------|----------------------------------------------------------------------|---------------------------------|------------------------------------------|
| MIFARE CLASSIC 1K EV1 S50 + EM4100 | 1024 bytes (HF) + 0 bytes (LF) - UID: 4/7 bytes (HF) + 8 bytes (LF)  | ISO 14443 A                     | Not supported by majority of NFC devices |
| MIFARE CLASSIC 1K EV1 S50 + EM4200 | 1024 bytes (HF) + 0 bytes (LF) - UID: 4/7 bytes (HF) + 8 bytes (LF)  | ISO 14443 A + ISO 11784 / 11785 | Not supported by majority of NFC devices |
| MIFARE CLASSIC 4K EV1 S70 + EM4200 | 4096 bytes (HF) + 0 bytes (LF) - UID: 4 bytes (HF) + 8 bytes (LF)    | ISO 14443 A + ISO 11784 / 11785 | Type 2 - tag compliant                   |
| MIFARE CLASSIC 1K EV1 S50 + T5567  | 1024 bytes (HF) + 36 bytes (LF) - UID: 4/7 bytes (HF) + 8 bytes (LF) | ISO 14443 A + ISO 11784 / 11785 | Not supported by majority of NFC devices |
| MIFARE CLASSIC 4K EV1 S70 + T5567  | 4096 bytes (HF) + 36 bytes (LF) - UID: 4 bytes (HF) + 8 bytes (LF)   | ISO 14443 A + ISO 11784 / 11785 | Type 2 - tag compliant                   |
| MIFARE CLASSIC 1K EV1 S50 + 5555   | 1024 bytes (HF) + 33 bytes (LF) - UID: 4/7 bytes (HF) + 8 bytes (LF) | ISO 14443 A + ISO 11784 / 11785 | Not supported by majority of NFC devices |
| MIFARE CLASSIC 4K EV1 S70 + 5555   | 4096 bytes (HF) + 33 bytes (LF) - UID: 4 bytes (HF) + 8 bytes (LF)   | ISO 14443 A + ISO 11784 / 11785 | Type 2 - tag compliant                   |
| RF81 + EM4200                      | 1024 bytes (HF) + 0 bytes (LF) - UID: 4 bytes (HF) + 8 bytes (LF)    | ISO 14443 A + ISO 11784 / 11785 | Not supported by majority of NFC devices |
| RF81 + T5567                       | 1024 bytes (HF) + 36 bytes (LF) - UID: 4 bytes (HF) + 8 bytes (LF)   | ISO 14443 A + ISO 11784 / 11785 | Not supported by majority of NFC devices |
| RF81 + 5555                        | 1024 bytes (HF) + 33 bytes (LF) - UID: 4 bytes (HF) + 8 bytes (LF)   | ISO 14443 A + ISO 11784 / 11785 | Not supported by majority of NFC devices |
| MIFARE DESFIRE 4K EV3 + EM4200     | 4096 bytes (HF) + 0 bytes (LF) - UID: 7 bytes (HF) + 8 bytes (LF)    | ISO 14443 A + ISO 11784 / 11785 | Type 4 - tag compliant                   |
| MIFARE DESFIRE 8K EV3 + EM4200     | 8192 bytes (HF) + 0 bytes (LF) - UID: 7 bytes (HF) + 8 bytes (LF)    | ISO 14443 A + ISO 11784 / 11785 | Type 4 - tag compliant                   |
| MIFARE DESFIRE 4K EV3 + ATA5577    | 4096 bytes (HF) + 36 bytes (LF) - UID: 7 bytes (HF) + 8 bytes (LF)   | ISO 14443 A + ISO 11784 / 11785 | Type 4 - tag compliant                   |



## Technical specifications

|                                          |                              |
|------------------------------------------|------------------------------|
| <b>Dimensions</b>                        | 50 x 30 x 1 mm; hole: ø 5 mm |
| <b>Material</b>                          | PVC                          |
| <b>Operation and storage temperature</b> | -35°C ~ +75°C                |

## Customisation

|                          |                               |
|--------------------------|-------------------------------|
| <b>Colours</b>           | White                         |
| <b>Type of printing</b>  | Offset printing, pad printing |
| <b>Type of numbering</b> | Laser, inkjet technology      |

