# **Datasheet**

Next-generation technology and smart innovations for a more connected, keyless building experience.





# SALTO Keycards

CCVD40xx

Technical specifications:

The SALTO smart keycards credentials feature the NXP MIFARE DESFire chip, which is certified as per the common criteria EAL5+ security standards. This chip provides the market's top alternative for RFID-based physical key products.

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#### **TECHNICAL DATA:**

Keycard size :	85,6mm x 54mm x 0.84mm <sup>1</sup> 2.127" x 3.375" x 0.033
Material:	PVC (Polyvinyl chloride)
Chip manufacturer:	NXP Semiconductors
Chip type:	MIFARE® DESFire®2

<sup>&</sup>lt;sup>1</sup> ISO CR-80. Same size and thickness as a standard credit card.

#### **SALTO PLATFORM COMPATIBILITY:**

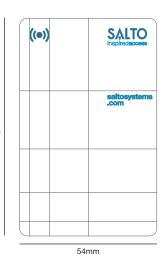
Version / Model	5	K	H
D403	_	_	•
D404	•	_	•
D405	_	•	_
D406	•	•	_

#### **COLORS:**

Available in white, SALTO design with different colors, or with customerspecific artwork options based on specific customer needs.

White	•	Pantone 10391 C (Metallic)
Blue	•	Pantone Process Blue C
Black	•	Pantone 10391 C (Metallic)
Red	•	Pantone 178 C
Green	•	Pantone 3395 C

#### **TECHNICAL DRAWING:**



#### **RFID MAIN FEATURES:**

## RF interface: ISO/IEC 14443 Type A

- Contactless interface compliant with ISO/IEC 14443-2/3 A
- Operating frequency: 13.56 MHz
  Fast data transfer: 106 kbit/s, 212 kbit/s, 424 kbit/s, 848 kbit/s
- 7 bytes unique identifier
- Uses ISO/IEC 14443-4 transmission protocol

# Non-volatile memory

- 4 KR
- Data retention of 25 years
- Write endurance typical 1,000,000 cycles
- Fast programming cycle

#### NV-memory organization and multi-application support

The DESFire PICC-level configuration allows creation of 3rd Party Application without presenting PMK, provided that the intended application fits in the free memory available.

## Security

- Common Criteria certification: EAL5+ (Hardware and Software)
- Unique 7 bytes serial number for each device
- Mutual three-pass authentication
- Hardware AES using 128-bit keys featuring key version
- Data authenticity by 8 byte CMAC
- MF3ICD40 compatible mode: 4 byte MAC, CRC 16
- Data encryption on RF-channel
- Authentication on application level
- Hardware exception sensors
- Self-securing file system
- Originality Check for proof of genuine NXP's product

#### Special features

Transaction-oriented automatic anti-tear mechanism with new transaction timer support.

<sup>&</sup>lt;sup>2</sup> Please contact SALTO inside sales for information on the latest family evolution available



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