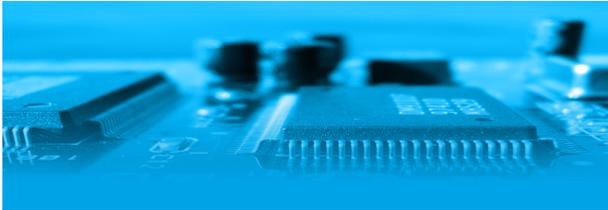# PRODUCT DATASHEETS

EVOLUTION KB READERS

Highlights

HIGH SECURITY : ANSSI QUALIFIED
EVOLUTION KB is available in several versions of "transparent" readers (no encryption keys stored in the reader). Connected to CUBE modules (RS485 with AES128 encryption), EVOLUTION readers are integrated into an ANSSI-certified architecture.
This architecture constitutes TIL's current offer : MICRO-SESAME CUBE.

BLUETOOTH AND MULTI-IDENTIFIERS
Bluetooth-specific versions and the addition of a secondary reading add-on module (below) allow the EVOLUTION KB reader to read up to 4 types of identifiers at once (e.g.: 13.56 MHz badge + Bluetooth + QR code + keyboard code).

ADAPTED TO YOUR CORPORATE IMAGE
The EVOLUTION KB reader has a removable case that can be customized at an extra cost.
Backlighting can also be adjusted according to the environment.

Main features

- Signal & pullout prevention (accelerometer) transmitted via the TIL remote modules.

- IP65 polycarbonate case, resistant to water jets and dust. Vandal proof (IK10).

- Cases are available in different colors. 360 different colors can also be used for backlighting.

- 3 add-on modules vailable : Biometrics, QR-code and 125 kHz.

- The biometry feature requires a specific programming kit. This feature supports DESFire badges only, and is also compatible with the operation in «transparent» mode.

Also available : Biometric sensor, Qr-code reader & 125 kHz reader

Enhanced control and flexibility

The EVOLUTION KB is a "transparent" contactless reader integrating a 12-key keypad. It can be used for identification purposes by reading RFID supports and/or by entering personal key codes.

One single EVOLUTION KB reader can operate in multiple mode. For instance, allowing badge reading for a group of employees and managing key codes for a group of users (visitors, temporary users…).
Reinforced security can be implemented by using both badge reading and key codes.

As the whole EVOLUTION CUBE series, it supports the whole Mifare® ID family and, to adapt to any security strategy, can read UID numbers or secure data, in a High Secure MICRO-SESAME CUBE architecture, ANSSI Qualified (Desfire EV1/EV2 only).

Reinforced authentication can be provided via an optional fingerprint sensor in the lower part. Two more optional modules are available for QR-Code or 125 kHz reading.
A Bluetooth range is also available for additional smartphone reading (see specific datasheet).

The modular nature of the EVOLUTION CUBE series offers the required flexibility to extend, to perform technological migrations, or to upgrade the security level on your sites.
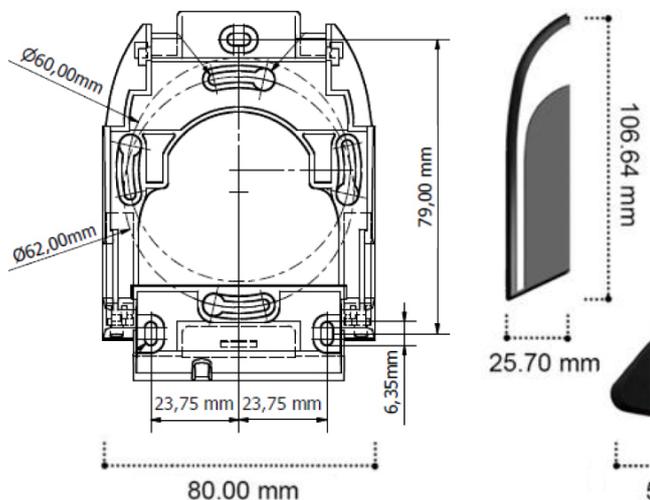
READERS IN THE 13,56 MHZ EVOLUTION SERIES				
EVOLUTION IN	EVOLUTION XS	EVOLUTION ST	EVOLUTION KB	EVOLUTION TL

EVOLUTION KB CUBE READER

Dimensions

Front and side views

Product references

CUBE range - Transparents readers

- **LEC05XF8240-NB5** : EVOLUTION KB keypad reader - OSDP Transparent reading - black - RS485 - Terminal output
- **LEC05XF5240-NB5** : EVOLUTION KB keypad reader - SSCPV2 Transparent reading - black - RS485 - Terminal output

CUBE range - Transparents readers + Biomletric

- **LEC72ST0840-NB5** : EVOLUTION KB keypad + biometric reader - OSDP Transparent reading - black - RS485 - Terminal output
- **LEC72ST0540-NB5** : EVOLUTION KB keypad + biometric reader - SSCPV2 Transparent reading - black - RS485 - Terminal output

CUBE range - Transparents readers + Bluetooth

- **LEC05XF8245-NB5** : EVOLUTION KB keypad + bluetooth reader - OSDP Transparent reading - black - RS485 - Terminal output

CUBE range - Transparents readers + Bluetooth +Bio

- **LEC72ST0845-NB5** : EVOLUTION KB keypad + biometric + bluetooth reader - OSDP Transparent reading - black - RS485 - Terminal output

CUBE range - Transparents readers + Bluetooth + QR-code

- **LEC24ST0845-NB5** : EVOLUTION KB keypad + QR-code + bluetooth reader - OSDP Transparent reading - black - RS485 - Terminal output

125 kHz reader module

- **LEC05TI0300-NCX** : Additional module - 125kHz PROXIL reader for EVOLUTION ST,KB and TL readers - Black

Technical details

- **Power supply** : 7 to 28 VDC
- **Average consumption** : 130 mA
- **Emission frequency** : 13.56 MHz – ISO14443 A & B, ISO18092 (NFC). Chips: MIFARE® Ultralight & Ultralight C, MIFARE Classic, MIFARE Plus, MIFARE DESFire EV1 & EV2, NFC, SMART MX, CPS3, Moneo, iCLASS, PicoPass.
  Bluetooth Series : see specific datasheet
- **Max. distance between module & reader** : 100 m (Wiegand/Dataclok) to 600m (RS485)
- **Communication interface** : RS485 with AES128 encryption
- **Connection** : 10 point snap-on terminals
- **Protection** : Pullout detection (accelerometer) + possibility of removing keys
- **Dimensions** : 107x80x26 mm
- **Mounting** : Surface or panel mount (center distance 60 mm)
- **Reading distance** : Up to 6 cm with Mifare Classic badges, 4 cm with DESFire EV1 badges
  Compatible with any support types, including metallic surfaces (no spacer needed)
- **Parameterisable signaling** :
  - » 2 controllable RGB LEDs. 360 colors available. Set up via configuration badge
  - » Integrated buzzer (driven by NG / V3 control units only)
- **Materials** :
  - » ABS-PC UL-V0 (black)
  - » ASA-PC-UL-V0 UV (white)
- **Resistance / sealing** : IK10 (excluding biometric sensors), IP65 (excluding connectors)
- **Operating temperature** : -20°C to +70°C, or -10°C to +50°C with biometric sensor
- **Humidity** : 0 to 95%
- **Weight** : 0.225 kg (excluding the biometric module)

Non contractual informations subject to modification without notice.

TIL TECHNOLOGIES

ELECTRONIC **SECURITY SYSTEMS**