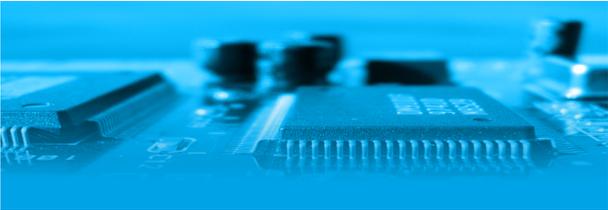


# PRODUCT DATASHEETS

## EVOLUTION ST READER



### Highlights

#### HIGH SECURITY : ANSSI QUALIFIED

EVOLUTION ST 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 ST reader to read up to 3 types of identifiers at once (e.g.: 13.56 MHz badge + Bluetooth + QR 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 available : 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

### Robust and scalable reader

The EVOLUTION ST is a "transparent" contactless reader supporting the whole Mifare® ID family: Ultralight, Ultralight C, Mifare Classic, Mifare Plus, DESFire (EV1/EV2/EV3).

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

Several versions are available, supporting different transparent protocols (OSDP/SSCP).

Reinforced authentication can be provided via an optional fingerprint sensor in the lower part. The reader can be ordered including this biometric sensor, or it can be added later.

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.

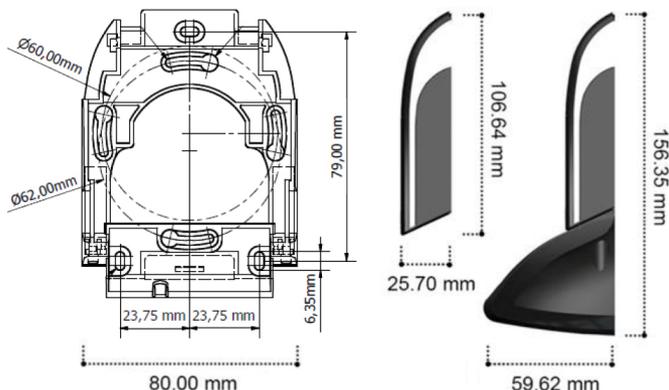
#### READERS IN THE 13,56 MHZ EVOLUTION SERIES

EVOLUTION IN	EVOLUTION XS	EVOLUTION ST	EVOLUTION KB	EVOLUTION TL
				

# EVOLUTION ST CUBE READER

## Dimensions

Front and side views



## Product references

### CUBE range - Transparents readers

- **LEC05XF8200-NB5** : EVOLUTION ST reader - OSDP Transparent reading - black - RS485 - Terminal output
- **LEC05XF5200-NB5** : EVOLUTION ST reader - SSCPv2 Transparent reading - black - RS485 - Terminal output

### CUBE range - Transparents readers + Biometric

- **LEC72ST0800-NB5** : EVOLUTION ST reader + biometric reader - OSDP Transparent reading - black - RS485 - Terminal output
- **LEC72ST0500-NB5** : EVOLUTION ST reader + biometric reader - SSCPv2 Transparent reading - black - RS485 - Terminal output

### CUBE range - Transparents readers + Bluetooth

- **LEC05XF8205-NB5** : EVOLUTION ST reader + bluetooth reader - OSDP Transparent reading - black - RS485 - Terminal output

### CUBE range - Transparents readers + Bluetooth +Bio

- **LEC72ST0805-NB5** : EVOLUTION ST reader + biometric + bluetooth reader - OSDP Transparent reading - black - RS485 - Terminal output

### CUBE range - Transparents readers + Bluetooth + QR-code

- **LEC24ST0805-NB5** : EVOLUTION ST reader + 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/Dataclock) 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 8 cm with Mifare Classic badges, 6 cm with DESFire EV1 badges  
Compatible with any support types, including metallic surfaces (no spacer needed)
- **Parameterisable signaling** :
  - » 2 LEDs RGB - 360 colors
  - » 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)

Sales Contact : sales@til-technologies.com  
www.til-technologies.com