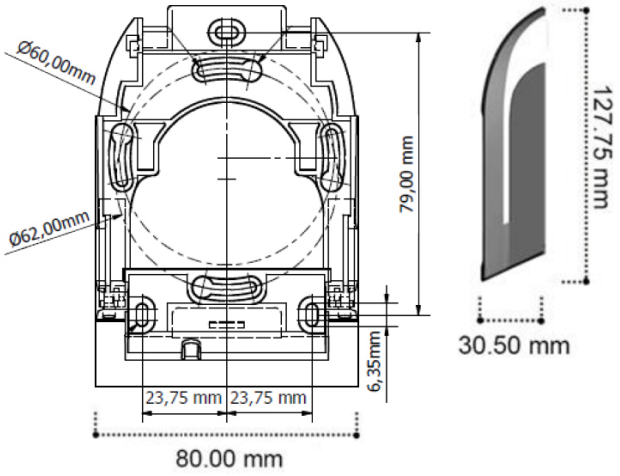
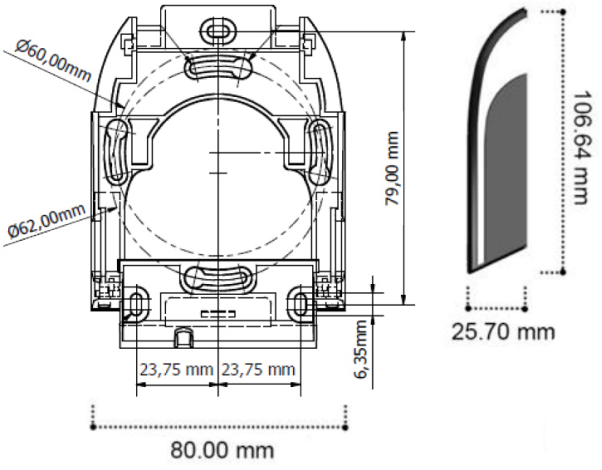
Dimensions

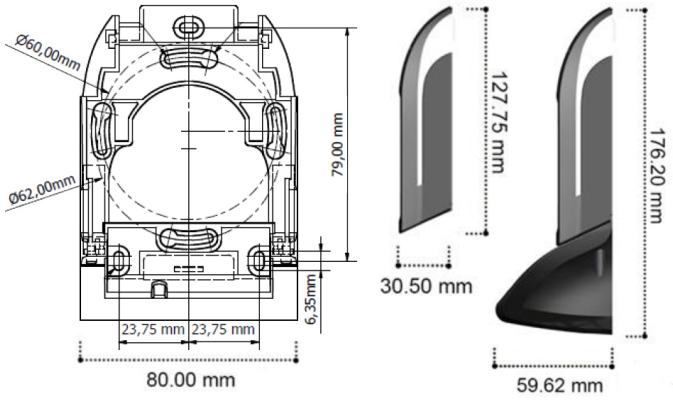
EVOLUTION TL
SSCPv2 : LEC05XF5225-NB5



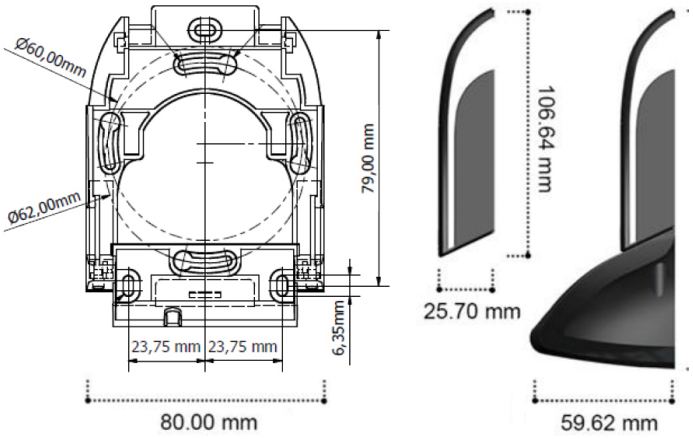
EVOLUTION ST, KB
SSCPv2 : LEC05XF5205-NB5, LEC05XF5245-NB5



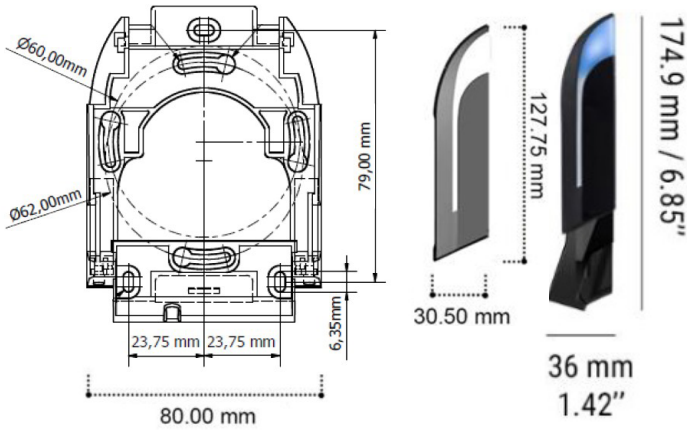
EVOLUTION TL BIOMETRIE
SSCPv2 : LEC72ST0525-NB5



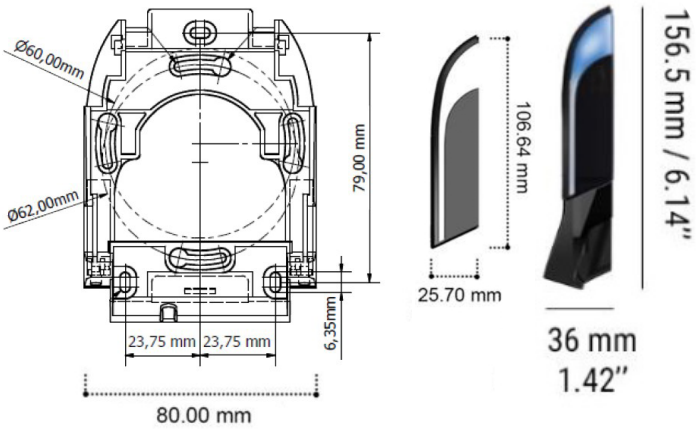
EVOLUTION ST, KB BIOMETRIE
SSCPv2 : LEC72ST0505-NB5, LEC72ST0545-NB5

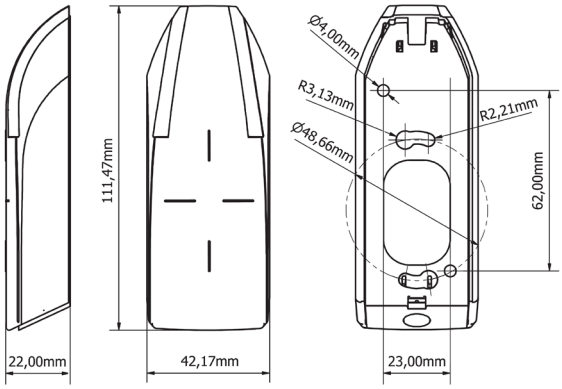


EVOLUTION TL QR code
SSCPv2 : LEC24ST0525-NB5



EVOLUTION ST, KB QR code
SSCPv2 : LEC24ST0505-NB5,LEC24ST0545-NB5





It is **mandatory** to respect all recommandations listed below when installing EVOLUTION XS readers on site.

Evolution XS Speciific recommandations
Not compatible with installation on a high traffic access
Not compatible with MLP-UPDATER modules
Not compatible with metal bracket mounting (in default of other options, the use of an offset bracket is mandatory, **REF: SOC05XF1XXX-N**)

Technical details

Power supply voltage	**+12 VDC à +15 VDC** : LEC05XF8005-NL5 **+12 VDC à +28 VDC** : LEC05XF82x5-NB5, LEC72ST08x5-NB5,, LEC24ST08x5-NB5, LEC05XF8020-NB5
Consumption	130 mA to 360 mA (+12 VDC typ.), depending on the reader model.
Wiring distance	up to 300 m. (2 pairs of AWG20, SYT1, shielded F/TPU minimum)
Distance between readers	Parallel plan : 30 cm, same plan : 40 cm, perpendicular plan : 25 cm.
Reading distance	Reading distance is variable, depending on the type of installation and the card read.
TILLYS driver	**HEXADECIMAL** : 74 - DEFAULT MLV3 DRIVER - Recommended for new projects. **DECIMAL** : 83 - Proxil10 for ML ou 84 - Proxil10 reverse for ML Output format can be set up via an applet (to be loaded on the MLP module via the TILLYS NG web interface).
Reader Protocol	**SSCPv2**
Matrix Reader (QR code)	Codes 1D & 2D: QR Code version 1,2 & 3; Micro QR Code; Code 128; Aztec and Data Matrix Format: UID Hexadecimal Reading distance: 3cm minimum (depending on the code size) **Caution** QR code readers are not suited to securized zone access control.
Minimum versions for XS, IN, ST, KB, ATEX readers	The following **firmware** versions (or higher) are required: **TILLYS** firmware v. 5.9.0 min. **MLPx** firmaware v. 4.2.0 min. **Reader firmware** v. Z8 min. **QR code reader firmware** v. Z9 min. Attention : please contact TIL Technologies support for the availability of firmware compatible with TL screen readers, Bluetooth and Biometrics.

Wiring

Evolution XS

READER	MLP2
Brown (0 VDC)	GND
Red (+VCC)	+V
Blue (L+)	A
Yellow (L-)	B

Evolution IN, ST, KB, TL

READER	MLP2
1 (0 VDC)	GND
2 (+VCC)	+V
6 (L+)	A
7 (L-)	B

Attention: In the case of 2 EVOLUTION QR code or 2 EVOLUTION BIOMETRIC readers wired on a single MLP2 module (one reader on each head), please follow the specific rules described in the dedicated section at the end of the datasheet.

Bluetooth readers configuration

Follow the procedure below to enable bluetooth on the access control module :
1. Go to page **Configuration** > **Reader technology** of the TILLYS web server
2. Find the module on which the bluetooth reader is connected
3. Enable bluetooth by switching the associated button
4. Click on submit.

It is necessary to perform a specific procedure in order to enable **configuration mode** for EVOLUTION transparents Bluetooth SSCP readers.

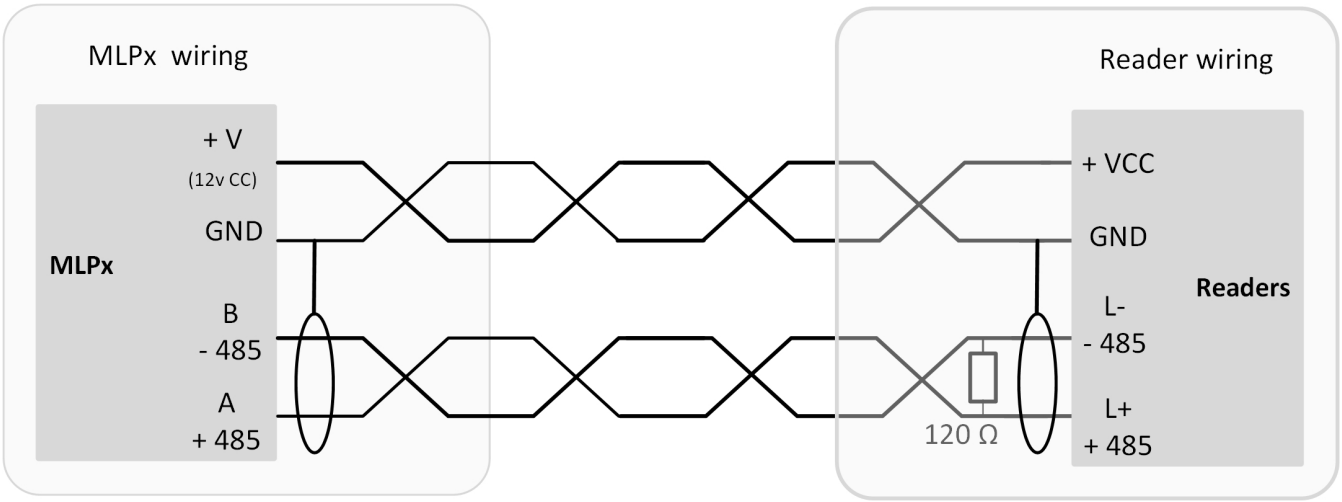
Follow the procedure below to configure a EVOLUTION SSCP bluetooth reader with a configuration badge :
1. Go to page **Maintenance** > **Reader Diagnostic** of the Tillys web server
2.Find the bluetooth reader

3. Click on icon  associated to the reader and verify the appearance of the confirmation band at the top of the window.

4. Present the configuration badge in front of the reader within **5 minutes**.

When configuration is enabled, the reader can not be used to perform access controls operation during 5 minutes or until a configuraiton badge has been presented to the reader.

Wiring recommandations



Wiring rules
The list below reminds some of the main wiring rules to be followed :

- The wiring cable **must** be **AWG20 (8/10e), SYT1, shielded F/UTP pairs** minimum.
- Cable **shield** must be **connected to the power supply GND on the reader side AND on the MLPxmodule side.**
- A **120 Ω end of line resistance** must be used on the **reader side.**
- **BUS RS485 A and B signals** must be connected **on the same twisted pairs.**
- Power supply **+V and GND** must be connected **on the same twisted pairs.**
- **Any wires that are not used** must be connected to **GND** on each **cable ends.**
- Any **cable conduct must be connected to GND** on each **cable ends.**
- The power supply **GND** must be connected to the **GROUND.**

Tamper management

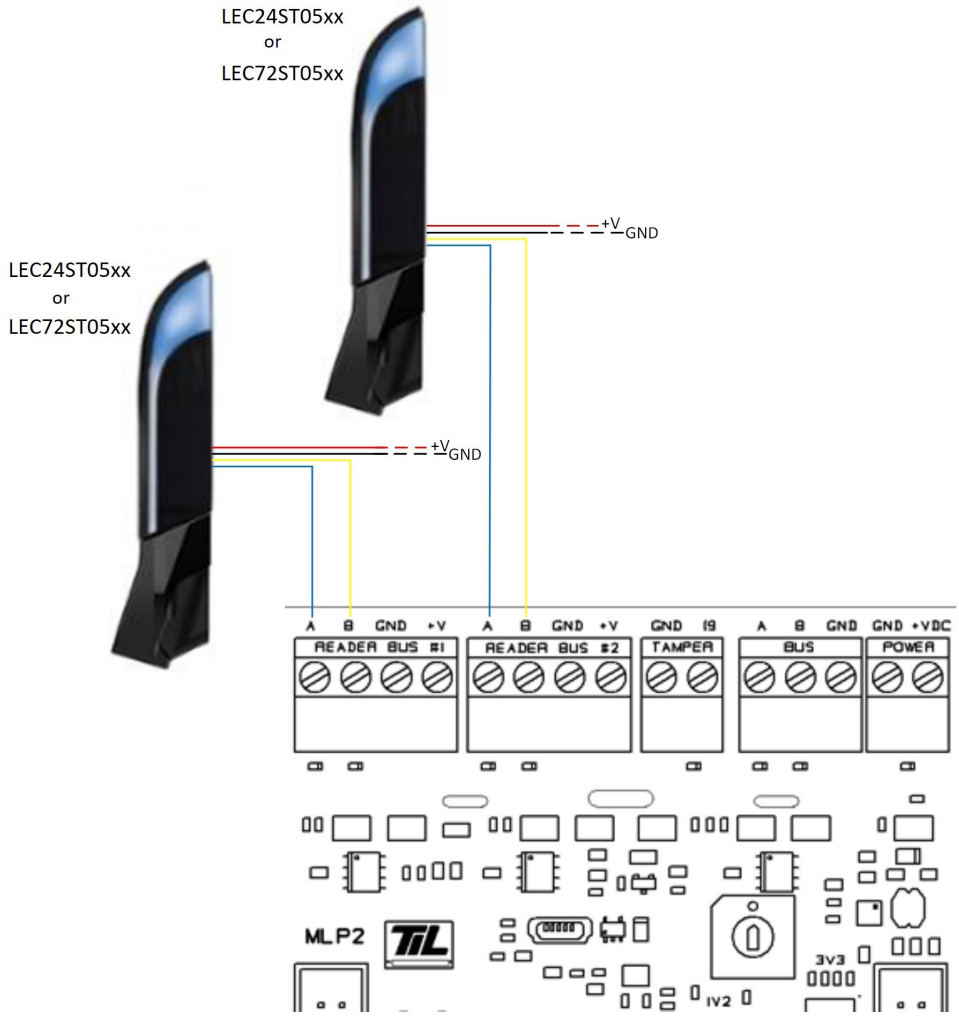
Tamper management is available from firmware 1.9 of the MLPx modukle.
Important : Power the reader once it is placed in its final position.

Recommendations : connecting equipments outside secure areas

It is strongly recommended to protect the reader power supply with a dedicated fuse (Example : 500 mA fuse). By doing so, intrusion attempts by short circuiting readers placed outside the secure areas are prevented.

Specific wiring configuration : EVOLUTION QR code or BIOMETRIC readers on MLP2 module

In the case of 2 EVOLUTION QR code or 2 EVOLUTION BIOMETRIC readers wired on a single MLP2 module (one reader on each head), it is mandatory to power at least one of the readers indenpendantly of the power distributed by the reader head (external source).



Recommendation for all reader models : limit of internal buzzer usage

To avoid any malfunction of the reader, it is advisable not to continuously use its internal buzzer.
If the buzzer needs to sound throughout the duration of an alarm, for example (a function defined during programming) :

- Do not program a continuous buzzer function
- Program an intermittent sound, for example a half-second beep generated intermittently, throughout the duration of the alarm.