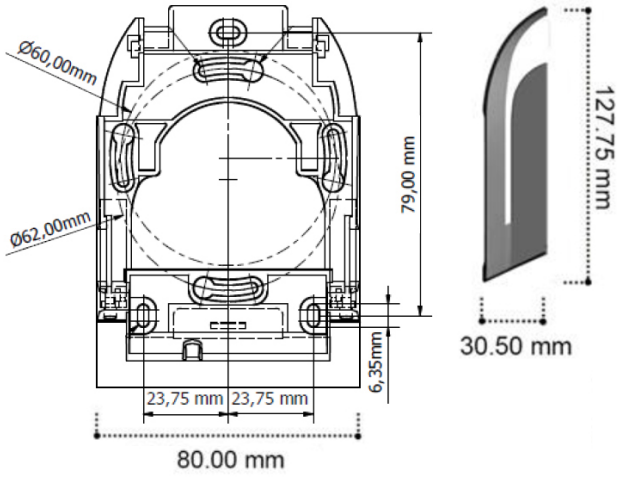
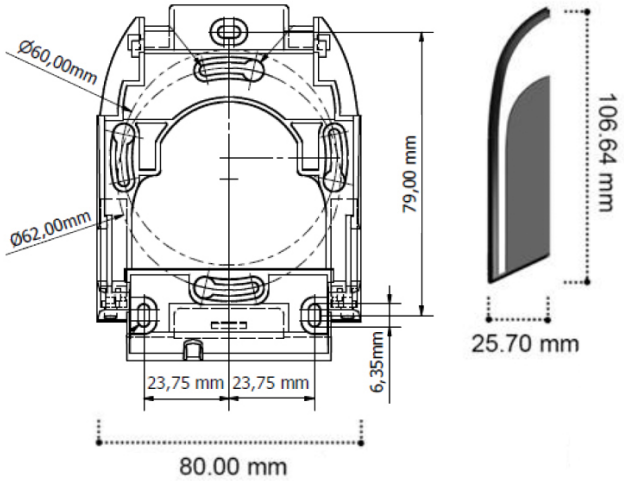
Dimensions

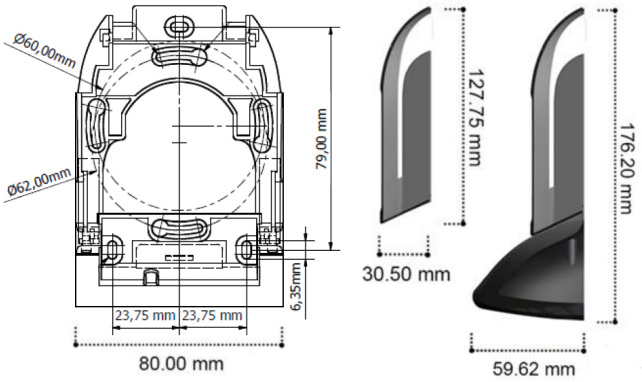
EVOLUTION TL
OSDP : LEC05XF8220-NB5



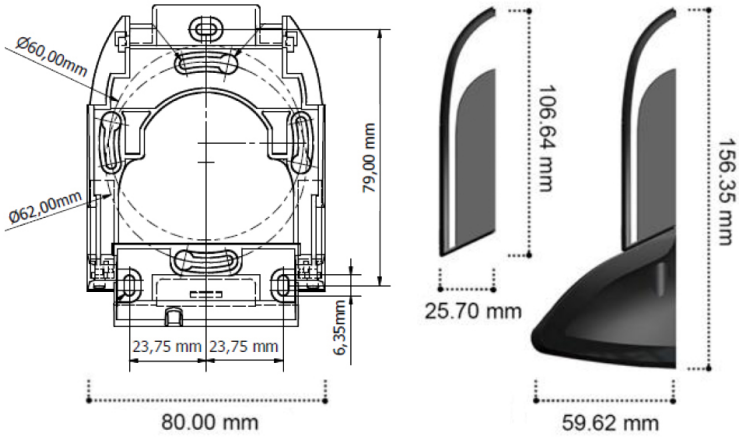
EVOLUTION ST, KB
OSDP : LEC05XF8200-NB5, LEC05XF8240-NB5



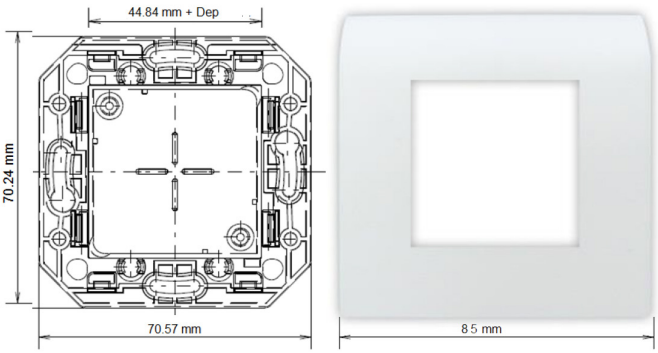
EVOLUTION TL BIOMETRIE
OSDP : LEC72ST0820-NB5



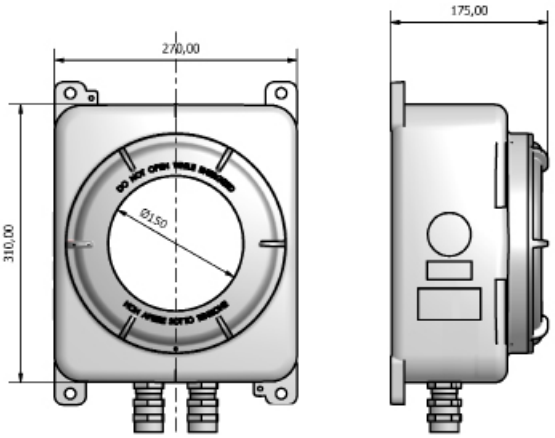
EVOLUTION ST, KB BIOMETRIE
OSDP : LEC72ST0800-NB5, LEC72ST0840-NB5



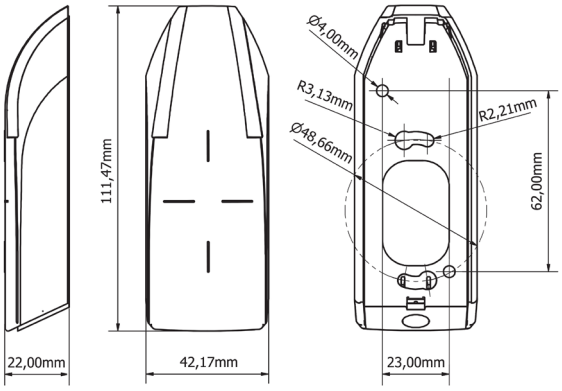
EVOLUTION IN
OSDP : LEC05XF8100-BB5



EVOLUTION ATEX
OSDP : LEC05XF8300-GB5



EVOLUTION XS
OSDP : LEC05XF8000-NL5



It is **mandatory** to respect all recommandation 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** : LEC05XF8000-NL5 **+12 VDC à +28 VDC** : LEC05XF8100-BB5, LEC05XF82x0-NB5, LEC72ST08x0-NB5, LEC05XF8300-GB5
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).
Protocole lecteur	**OSDPv** (plain) **OSDP** (secure) **Caution** It is mandatory to remove the customer key from the reader before switching from secure to plain
Minimum versions for XS, IN, ST, KB, ATEX readers	The following **firmware** versions (or higher) are required : **TILLYS Cube/NG** firmware v. 4.0.0 min. **MLPx** firmaware v. 4.2.0 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 ST, KB, TL

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

Evolution ATEX, IN

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

Choosing the reader protocol

The reader protocol used for communication can be selected from the MICRO-SESAME configuration interface or from the TILLYS NG web interface.

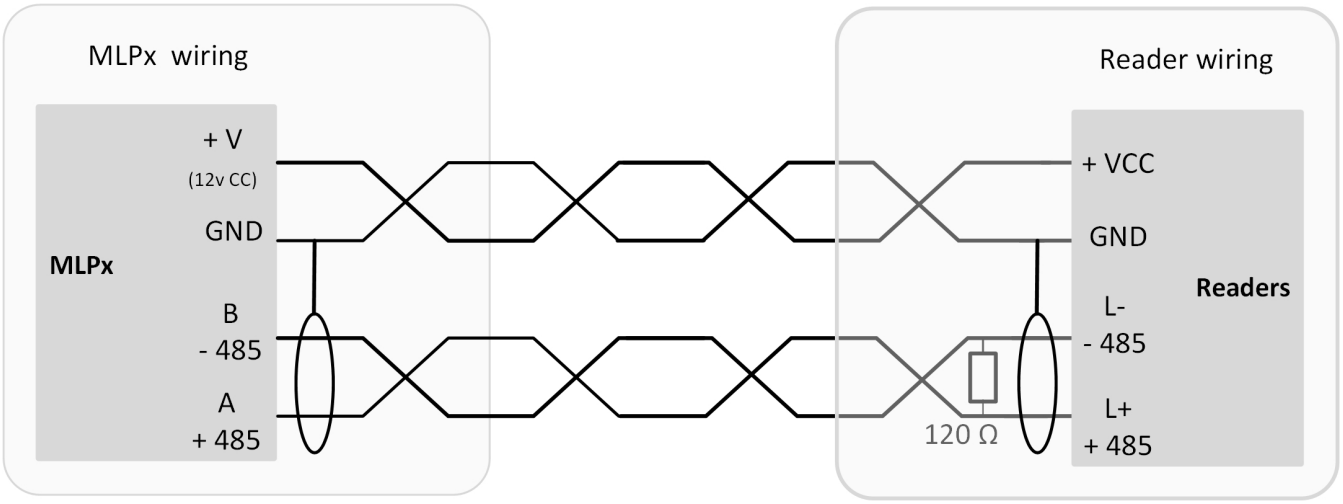
Tamper management

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

Recommendations : connecting equipments outside the 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.

End of line resistance



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 MLPx module 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.**

Important

By default, MCEZ-3R is not needed on the MLP1 and MLP2 modules.
Only the first versions of MLP2 (with reference 12-011-**F**) must be equipped with a MCEZ-3R.