



TECHNICAL DATASHEET
MLP-UPDATER

ACCESS CONTROL AND OFFLINE ACCESS RIGHTS UPDATER MODULE

05/25/2022

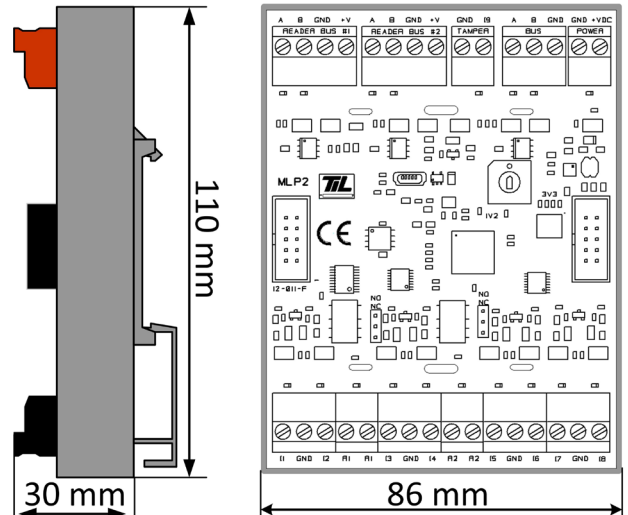
Overview

The MLP-UPDATER is a specialised module, from the ML CUBE range. Connected to the TILLYS CUBE, it allows management of access control, intrusion and B.M.S as well as the **update of offline access rights** for OSS (Open Security Standard) encoded badges.

It allows to manage up to 2 reader updaters. Its 9 configurable inputs (NO/NC, supervised, ...) allow the feedback of informations coming from access control, intrusion and B.M.S

The module can process data from all types of badges with or without offline data encoded within.

It connects to a TILLYS CUBE module via an AES secure RS485 bus. It is possible to connect 1 MLP-UPDATER module per bus. The firmware update is carried out directly via the web interface of the TILLYS CUBE.



TECHNICAL DETAILS

Power supply / Consumption	Operating range : 12 - 28 VDC
Consumption (bare electronic module)	30mA typ. at 13,6 VDC 15mA typ. at 27 VDC
Operating temperature	-10°C to +55°C
RS485 bus type	ML CUBE UPDATER
Addressing range on the bus	1
Maximum number of readers	2 reader updaters
Number of inputs	9
Number of relay outputs	2
Response time between badge presentation and the update of OSS offline rights	Depends on the volume of offline data to update in the badge
Response time between badge presentation and the control of the relay	<ul style="list-style-type: none"> • Badge without offline data: <0.6 s • Badge with offline data : depends on the time necessary to process offline data
Offline compatibility	OSS-SO Standard Offline
Badge compatibility	DESfire EV1 (EV2 simulated EV1)
Reader compatibility	Standard readers only (ST) Reader modules not supported (Biometrics, 125Khz, QR code, ...) Protocols : SSCPv1 and SSCPv2
Maximum continuous current allowed by relays	2 A
Maximum power allowed by relays	48 V
Maximum relay power	48 W exemples : 12V / 2A 24V / 2A 48V / 1A
Alternative current relay wiring	Warning: The wiring of relays on alternative current has not been validated and the responsibility of TIL technologies can not be involved incase of material deterioration for this type of installation. Max suggested Power: 50W

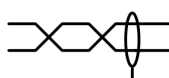
Wiring

Power 12 to 28 V DC

+VDC	1
GND	

ML CUBE UP BUS

Use 1 twisted pair
Max length 600 m



A : + ML bus	2
B : - ML bus	
GND	

BUS A + Power + Tamper

via HE10 connector (2A max)

Connection HE10 bus	3
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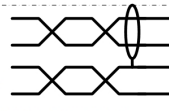
Reader updater 1

RS 485 Bus + Power supp

Refer to the reader technical datasheet.

Note: The output voltage of the power

supply is the same as the power supply voltage of the MLP-UP.



A : + bus Reader 1	4
B : - bus Reader 1	
GND	
+V : + Reader 1 power.sup	

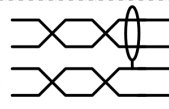
Reader updater 2

RS 485 Bus + Power supp

Refer to the reader technical datasheet.

Note: The output voltage of the power

supply is the same as the power supply voltage of the MLP-UP.



A : + bus Reader 2	5
B : - bus Reader 2	
GND	
+V : + Reader 2 power.sup	

9 Configurable inputs

See QR code on page 3

Ix	6
GND	
Ix	

I9 predisposed for tamper management

I9 or TAMPER	7
GND	

2 output bistable relays

Rx	8
Rx	

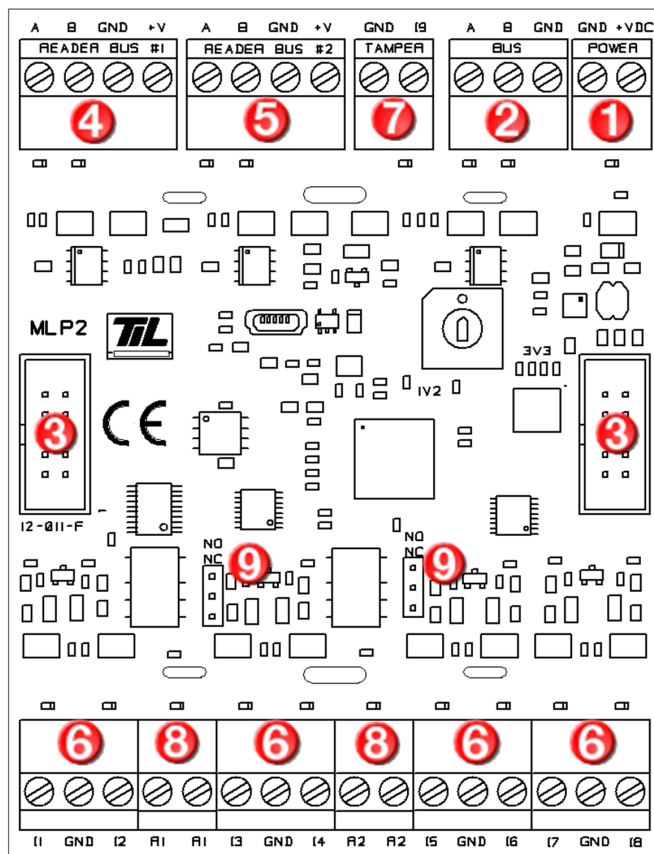
Default output relay status

Configuration by jumpers (left R1, right R2)

Electrically reboot the module after modification

NO : norm. open	9
C : common	
NC : norm. closed	

*Use of a twisted cable with the shielding connected to the ground on both ends of the cable.



Wiring rules for connecting the module to the RS485 bus of the TILLYS CUBE

- The wiring cable must be at least AWG20 (8/10e), SYT1, shielded F/UTP pairs.
- The cable shield must be connected to the power supply GND on both ends.
- The bus RS485 A and B signals must be connected using the same twisted pairs.
- Power supply +V and GND must be connected using the same twisted pairs.
- Any wires that are not being used must be connected to GND on both ends.
- Any cable conduct must be connected to GND on both ends.
- The power supply GND must be connected to the GROUND.

Module addressing

The module's address is set to 1.

The rotary dip-switch is deactivated on the MLP-UPDATER

Wiring diagram

Flash or click on the following QR code to obtain the door object wiring diagram and information on the Input/Output configuration:



TILLYS NG FW 3.0 and greater