

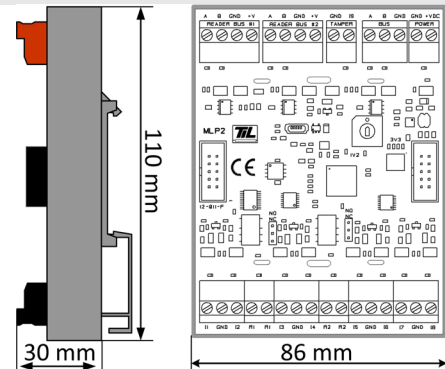


Overview

MLP2-CUBE 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

It allows to manage up to 2 accesses thanks to its 2 bus readers. Its 9 balanced inputs allow the feedback of informations coming from access control, intrusion and B.M.S

It connects to a TILLYS CUBE module via an AES secure RS485 bus.
 It is possible to connect 8 MLP2 CUBE modules per bus.
 The firmware update is carried out directly via the web interface of the TILLYS CUBE.

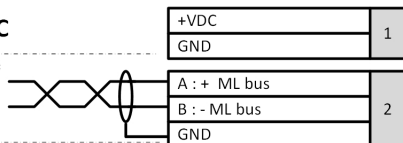


Wiring

Power 12 to 28 V DC

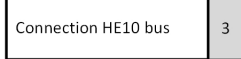
ML CUBE BUS *

Use 1 twisted pair
 Max length 600 m



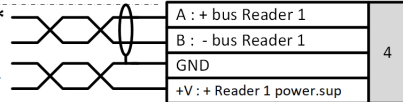
BUS A + Power + Tamper

via HE10 connector (2A max)
TILLYS CUBE must NOT be powered when (de)connecting ML modules.



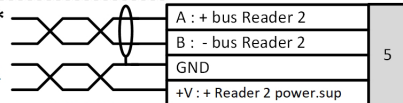
Reader 1 *

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 MLP2.



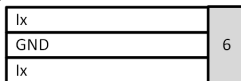
Reader 2 *

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 MLP2.

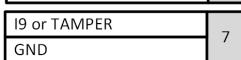


9 Balanced inputs

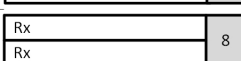
Refer to the MLV3 configuration guide



I9 can be parameterised for TAMPER or A.P

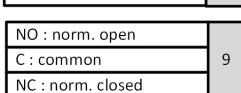


2 output bistable relays



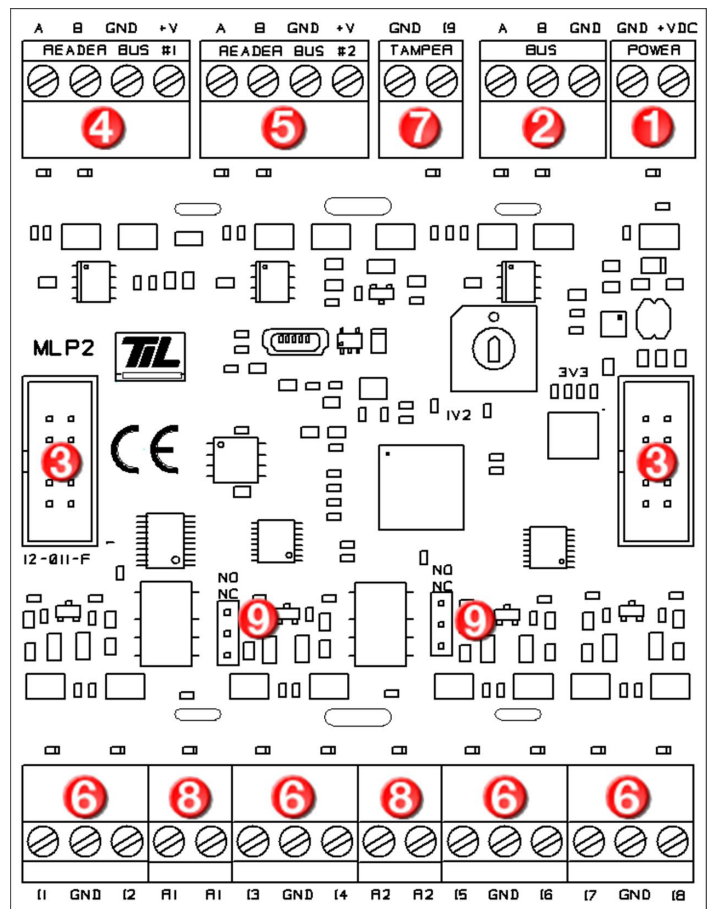
Default output relay status

Configuration by jumpers (left R1, right R2)



Electrically reboot the module after modification

*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.

TECHNICAL DETAILS

Power supply / Consumption	Operating range : 12 - 28 VDC Degraded mode : Operation is supported at 10,7 V in case of primary mains failure
Consumption	30mA typ. at 13,6 VDC
Operating temperature	-10°C to +55°C
RS485 bus type	ML CUBE
Addressing range on the ML CUBE	1 to 8
Maximum number of readers	2 readers (MLP2 CUBE @1 to 7) 1 reader (MLP2 CUBE @8)
Number of inputs	9
Number of relay outputs	2
Response time between badge presentation and the control of the relay	< 0.5 second
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

Module addressing

The jog wheel allows the addressing of the modules. :

- 1 = Address 1
- 2 = Address 2
- ...
- 8 = Address 8

Wiring diagram

Flash or click on the following QR code to obtain the door object wiring diagram for MLPx/MLDx modules and TILLYS NG with firmware version 3.0 or higher :

