



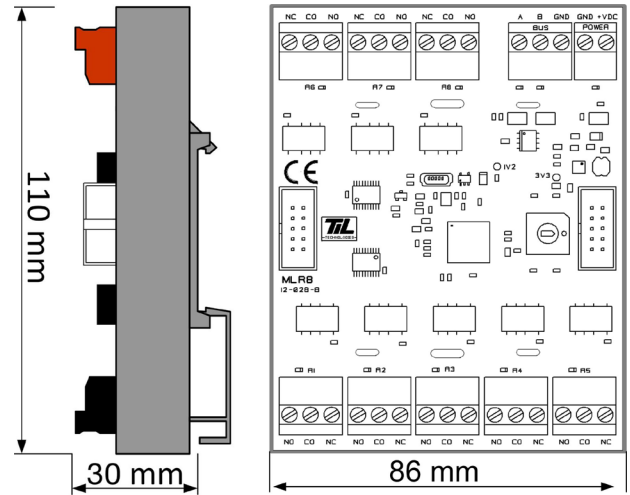
Overview

MLR8-CUBE is an extension module for TILLYS CUBE and MLR8S-RD or MLR8-RD are extension modules for TILLYS NG dedicated to building management system.

It can manage up to 8 relay outputs.

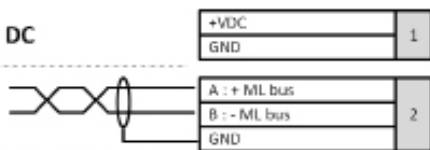
MLR8-CUBE and MLR8S-RD connect to a TILLYS CUBE or TILLYS NG module via an AES secure RS485 bus. It is possible to connect 16 MLR8 modules per bus.

The firmware update is carried out directly via the web interface of the TILLYS.



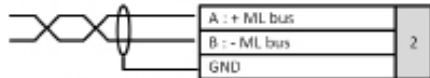
Wiring

Power 12 to 24 V DC



ML BUS

Use 1 twisted pair
Max length 600 m



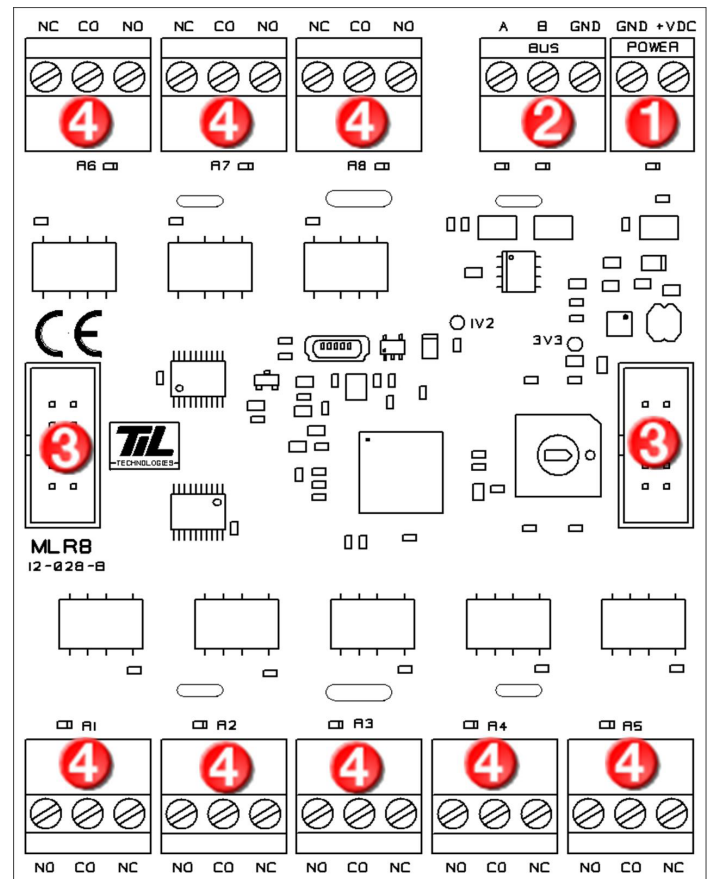
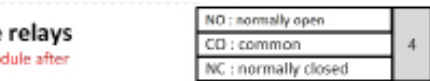
BUS A + Power + Tamper

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



8 output bistable relays

Electrically restart the module after modification



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

- 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

FEATURE	VALUE
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	MLR8-CUBE : ML CUBE MLR8S-RD : MLv3 (2.x) MLR8-RD : MLv3 (1.x)
Addressing range on the MLv3 bus	1 to 16
Number of relay outputs	8
Maximum continuous current allowed by relays	2 A
Maximum voltage allowed by relays	48V
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

...

9 = Address 9

A = Address 10

F = Address 15

0 = Address 16

Caution : Reboot electronically the module after modification.