



TECHNICAL DATASHEET TILLYS CUBE AND TILLYS NG

IP CONTROL UNIT

04/22/2022

Access control / Intrusion / B.M.S

Integrated IP control unit managing access control, intrusion and BMS.

Communication with ML modules (using AES encryption) or MD modules via RS485 connection.

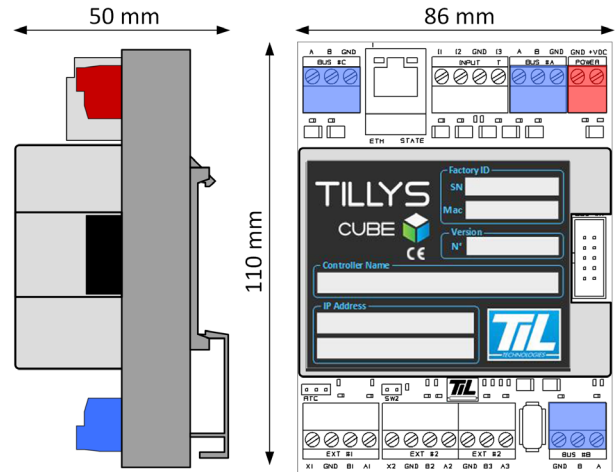
DIN rail mount.

Standalone or MICRO-SESAME based monitoring, configuration and operation.

For more information, refer to the register guide and the microcode programming guide.

The administration, configuration and update of the TILLYS unit will be performed via the Web Server interface.

In a web browser, enter the IP address of the TILLYS unit to access its Web Server interface.



Wiring

Power supply (12 to 28 VDC)

BUS A

Use 1 twisted pair
Max. length 600 m



+VDC : + power supply	1
GND : - power supply	

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

BUS A + Power + Tamper

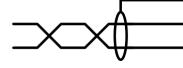
via HE10 connector (2A max)

TILLYS NG must NOT be powered when (de)connecting ML modules.

Bus A Connection : HE10	3
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BUS B

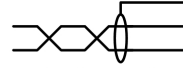
Use 1 twisted pair
Max. length 600m



GND	4
B : - bus B	
A : + bus B	

BUS C

Use 1 twisted pair
Max. length 600 m



GND	5
B : - bus C	
A : + bus C	

IP Network

RI45 Ethernet connector	6
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3 Configurable inputs

See Register guide for TILLYS Cube

I3 predisposed for to tamper management

I1 : balanced input	7
I2 : balanced input	
GND : shared	
I3 : bal.input. or TAMPER	

X1	8
GND	
B1	
A1	

Add-on card connectors

For wiring details, refer to the TILLYS NG expansion cards datasheets

X2	9
GND	
B2	
A2	

GND	10
B3	
A3	

Dedicated to future USB extensions

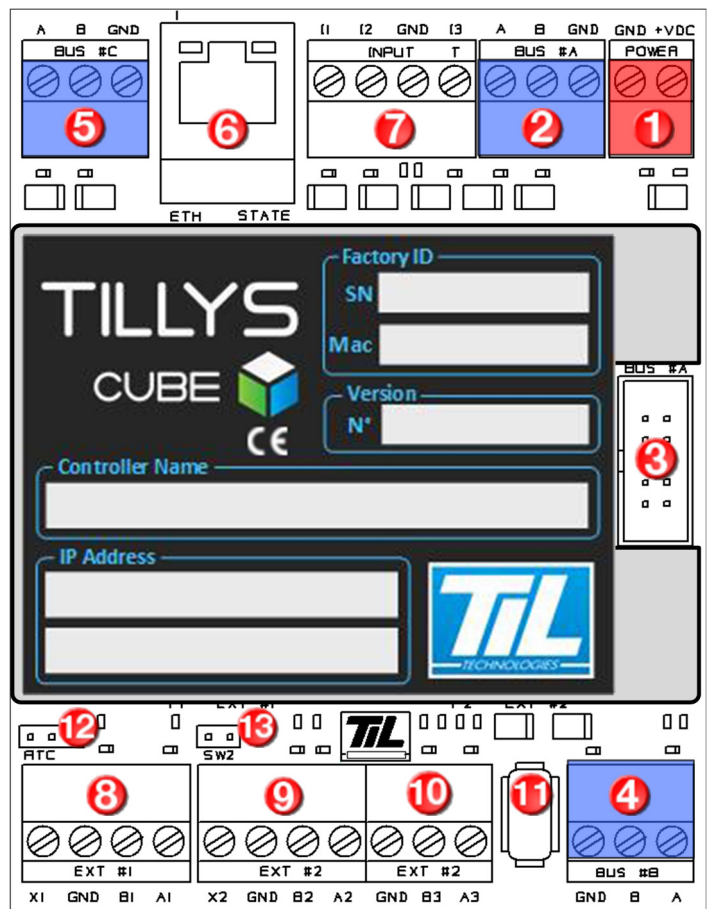
USB2 connector	11
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Time/date switch

A strap is required

RTC Switch	12
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SW2 Switch	13
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TILLYS CUBE AND NG DETAILS

FEATURE	VALUE
Power supply voltage	Operating range : 12 - 28 VDC Degraded mode : Operation is supported at 10,7 V in case of primary mains failure
Consumption @ 13,5 V	60 mA +/- 200 mA at unit launch
Operating temperature	-10°C to +55°C

Factory settings

IP address	172.16.5.239
Subnet mask	255.255.0.0
Gateway	172.16.0.254
DHCP	Disabled
TCP port (or UDP if mixed use of TILLYS CUBE and TILLYS v2 units)	20100
configuration TCP port	20100
"admin" password (administrator rights)*	admin (Admin account only available from firmware 1.9.0.)
"service" password (operator rights)	service
"user" password (read-only rights)	user

Important

Saving the time settings

By default, to save battery life, there is no strap on RTC switch.

To save the time settings, place the strap on RTC pin (on the left), this will use the battery when the TILLYS is powered off.

Powering on a TILLYS unit

When powering on a TILLYS unit, a 1 minute period is required for the unit to become fully operational.

Powering off a TILLYS unit

When powering off a TILLYS unit, a 1 minute period is required for the unit to become fully inactive.



In versions below firmware 1.9.0, when restarting a TILLYS NG unit, a one minute stop is required between stop and start. Otherwise, the TILLYS NG unit will not be able to restart.

Procedure for restoring the factory settings

1. If the TILLYS NG is powered, power supply must be stopped
Wait for one minute before proceeding to step 2
2. Place the strap on the SW2 switch
3. Power the TILLYS NG again
4. After a while, LEDs for I1, I2 and I3 as well as the Ethernet green led will start to blink
5. Remove jumper from switch SW2.
6. The TILLYS NG restarts in the factory configuration.

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

- 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.