OPTILITE

Installation and Operation Manual

Rev 1.9.2026

OptiLite Multifunction device

OVERVIEW

OptiLite - Optimized for success

P5 OptiLite has been developed with total flexibility and cost-effectiveness in mind and will revolutionize the way projects are managed.

The outputs of OptiLite units are tailor-made. You no longer have to pay for unused channels. OptiLite is the ultimate way to approach multi-dwelling unit projects.

OptiLite is a 4in1 FutureNow (the established product range by P5) with more power and resources. You no longer have to buy a different box for each function. You can combine four different functions using a single box. For example, you can use a single OptiLite module to control a few on/off lights, RGB LED lighting, blind control and even have digital inputs for sensors/manual control or activating macros/scenes.

The OptiLite main board has 16 digital inputs and 4 slots for Output Boards.

OptiLite comes in the following versions:

The **OptiLite Standard** version comes preconfigured, with the Output Boards in place, so you must specify the type of boards at the time of the order.

The **OptiLite Configurable** version includes special connectors, enabling you to build the system yourself, swap Output Boards as needed, and start with one or two output boards with the opportunity to expand later.

Both OptiLite Standard and Configurable versions can be upgraded to Premium Optilite modules. The Premium modules offer capacitive touch buttons on the enclosure for manual control of the outputs and an E-Ink display.

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INSTALLATION

WARNING!

This equipment shall be installed in a closed cabinet with no access to live parts. Only the top enclosure of the equipment (where the label is affixed) is allowed to be accessed by the operator.

Since the module is connected to mains/line voltage, it must be installed by a qualified electrician in accordance with local electrical codes.

Turn off power (main circuit breaker) before installation.

Wiring

Wiring Diagram

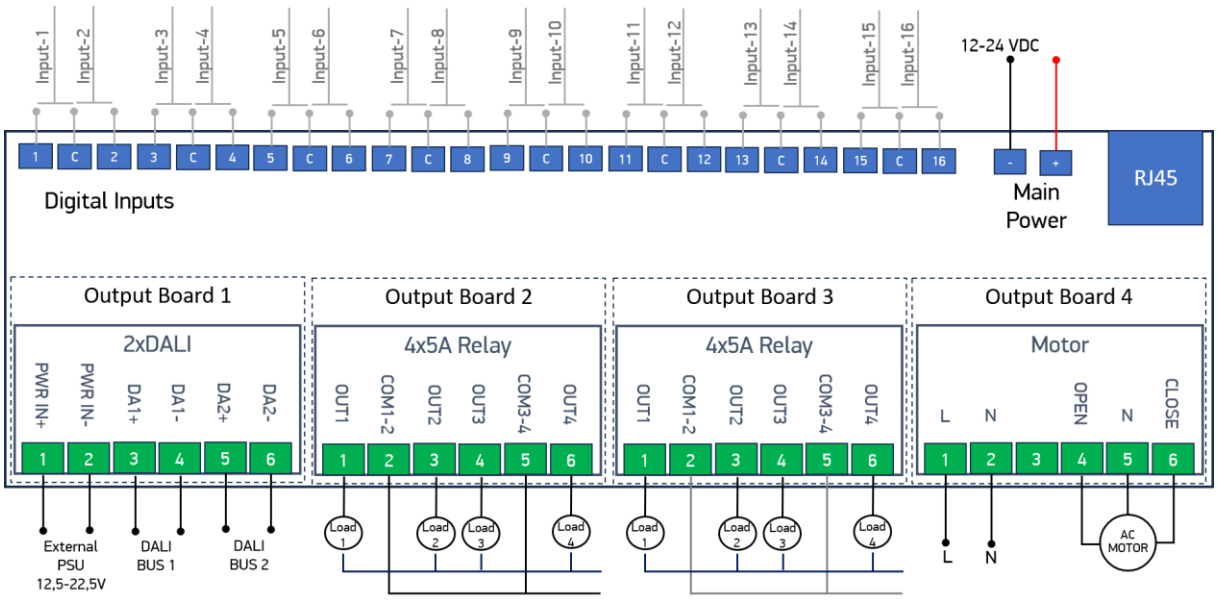


Figure 2. Sample wiring diagram of an OPTILITE

Inputs

Recommended wire types

- Ethernet cable: Twisted pair, CAT5 or better.
- Inputs: A pair of low or high voltage cables.

You can connect momentary switches, or the FN-Touchpad4 touchpads, or sensors across the input terminals.

WARNING! Avoid supplying voltage on these terminals!

Power requirements
The module must be powered by 12 - 24V DC. Please pay attention to the correct polarity!

Ethernet connection
Connect the module to the LAN via the RJ45 Ethernet socket. The OptiLite supports 100Mbps speed.

Output boards

The OptiLite has 4 slots where the Output Boards can be installed.

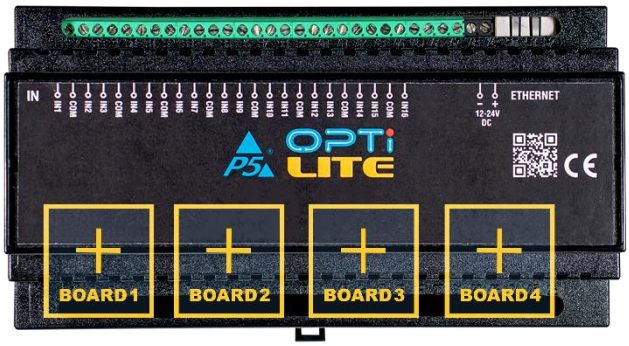
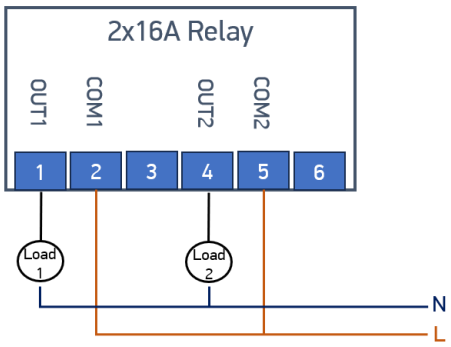


Figure 3. The Output Boards of the Optilite

Available Output Boards

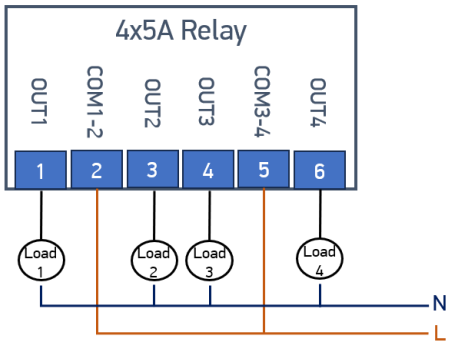
2x16A dry contacts

2 relays with NO contacts



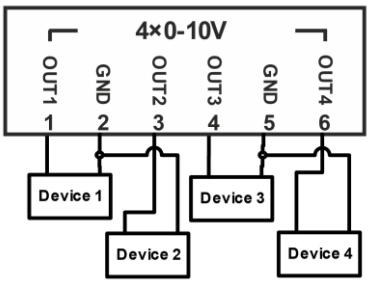
4x5A dry contacts

4 relays with NO contacts



4x0-10V outputs

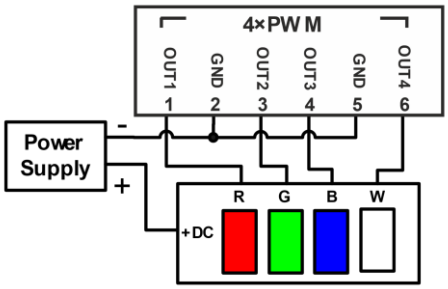
4 channel 0-10V voltage outputs



4xPWM outputs

4 channel PWM outputs for LED dimming. Single colour or RGB.

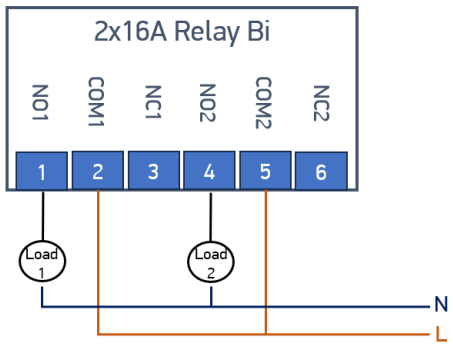
Multiple Power supplies can be used (12V-48V)



2x16A dry contacts using bi-stable relays

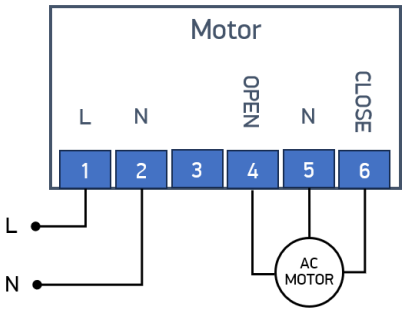
2 channel NO/NC relays

They are latched in both positions and only use power to switch over.



1xSH Motor controller

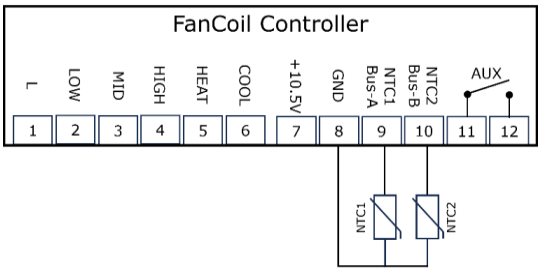
One channel motor controller for AC motors



1xFCC NTC FanCoil Controller

One FanCoil Controller for cooling and heating, 3-speed fan (low, mid, high) and two NTC temperature sensors.

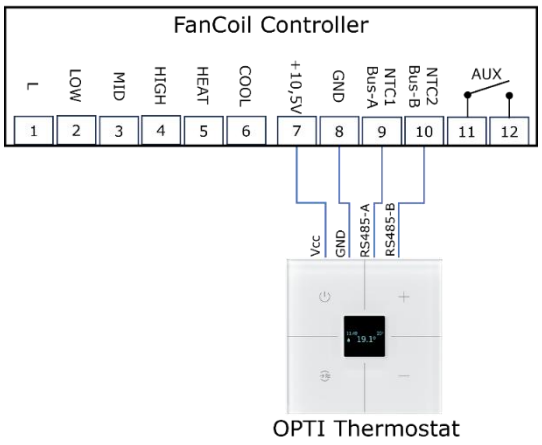
The FCC output module requires two OPTI slots.



1xFCC TS FanCoil Controller

One FanCoil Controller for cooling and heating, 3-speed fan (low, mid, high), integrated with the OPTI Thermostat.

The FCC output module requires two OPTI slots.



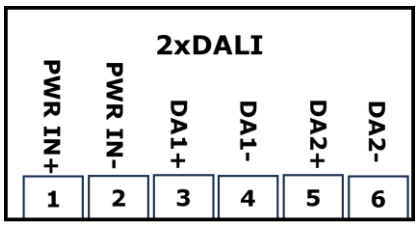
OPTI Thermostat

2xDALI

2 DALI-2 buses for 64 DALI devices per bus. Supports DT6 and DT8.

Control of DALI-2 sensors and other input devices.

Integrated DALI bus power supply.



CONFIGURATION

Configuration can be done either via the built-in website or via TCP/IP connection.

Configuration via the web interface

The OptiLite automatically receives an IP address from a DHCP server.

In the lack of a DHCP server or when DHCP option is disabled on the network configuration page of the module, the default IP address of 192.168.1.25 will be assigned. The same IP address will be assigned when connecting the module directly to your computer using an Ethernet cross cable (no DHCP server).

Use the FNIP Manager or other network discovery software to find all FutureNow IP and OptiLite devices on your network.

Connecting to the module's web server

Connect to the web interface of the module by using a web browser. Clicking on one of the units found by the FNIP Manager or the FNIP Network Discovery Tool will automatically do that for you.

You can also access the module's internal website from an Internet browser using the module's IP address.

Authentication

Once connected to the module's website, you will be asked to identify yourself, as seen in figure 4.

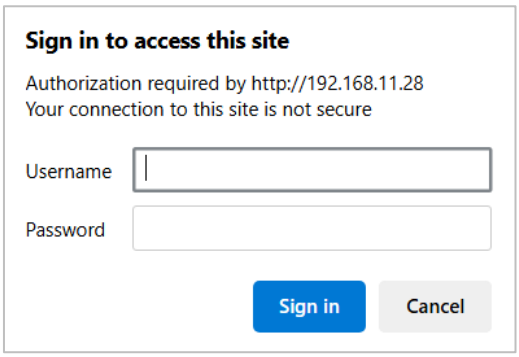


Figure 4. Authentication Window

The default user name: **admin**

The default password: **optilite**

You can use the tabs on the top of the screen to navigate between the different control and configuration pages.

Control Page

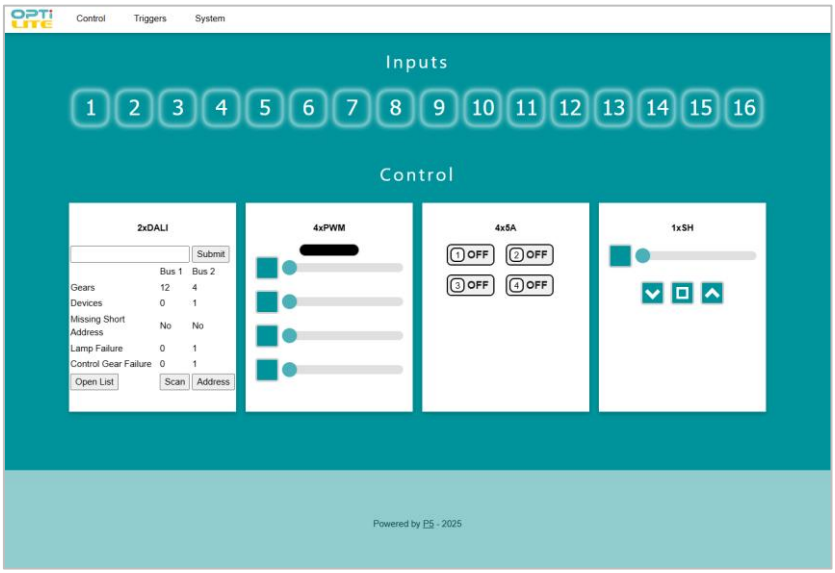


Figure 5. The Control Page of the OPTILITE

The Control Page provides an overview of the Output boards and the status of the channels. It allows control of the outputs, setting heating setpoints and other functions such as scanning DALI gears.

Triggers Page

The Triggers Page allows the definition of triggers based on inputs or state status.

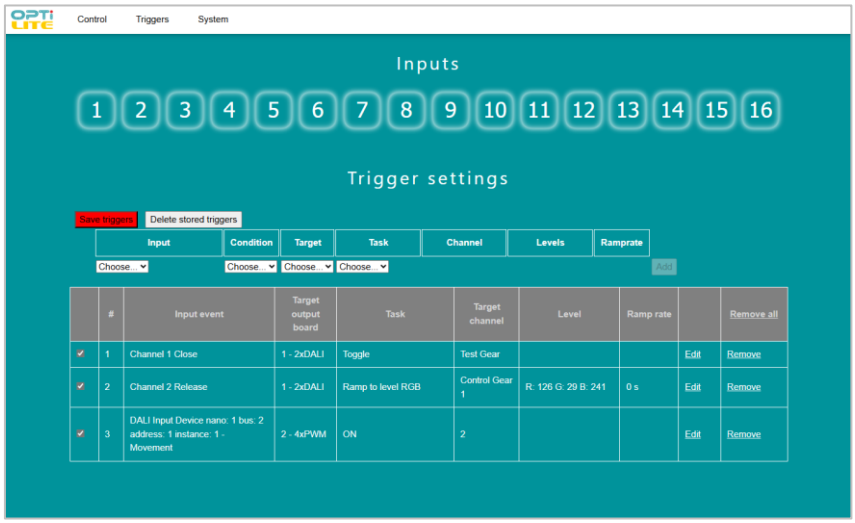


Figure 6. The Triggers Page

In the Triggers Page you can add and edit triggers to control output channels using drop down menus.

A total of 100 triggers can be defined.

System Page

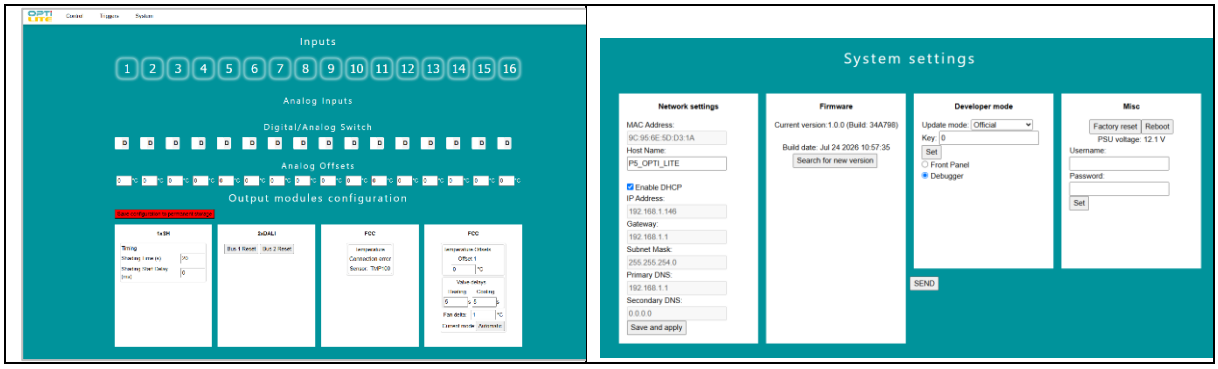


Figure 7. System page

In the System Page you can:

- Configure output board channels settings such as motor controller duration, temperature offsets and valve delays for the Fan Coil Controller.
- Change network configuration settings.
- Upgrading the firmware (firmware upgrade is cloud based and requires internet connection).
- Change the username and password.

Resetting to factory defaults

Holding the reset button for at least than 2 sec while powering up the module will set all the settings to factory defaults.

OPERATION

Operation via the local inputs

The inputs can be activated by shorting the appropriate input terminal to the input common terminal. The function each input short performs is defined in the triggers page.

Operation via TCP

To achieve the easiest integration with most controllers used in home and commercial applications, the module can be controlled by raw TCP protocol using simple ASCII based commands.

The TCP/IP communication can be enabled/disabled via the Network settings screen.

The TCP Communication Protocol Description is available upon request.

Event notifications

Automatic event notifications are sent to clients via the open socket connections whenever the status of an input or output changes.

The TCP/IP communication can be enabled/disabled via the Network settings page.

Basically, any third-party controller that can implement the FNIP-16/32xDI's simple communication protocol can control the module. The following controllers are the most widely used:

- Control4
- Savant
- Crestron
- RTI
- Extron

Software modules/plug-ins for the above controllers are available or P5 will provide full assistance in creating them.

Besides these special-purpose controllers, there are many applications for embedded industrial PC boards, PCs and smartphones running Linux, Windows, Mac OS.

TECHNICAL SPECIFICATIONS

Power Requirements	
	12 – 24V DC
Input parameters	
Contact closure inputs	
Maximum resistance	< 10Ω
Output Modules	
One phase per output module	
2x16A Output module	
Type	2 x SPST NO, dry contacts
Load (AC)	250V max. 16A for resistive (cos(fi)=1) load 250V max. 8A for inductive (cos(fi)=0.4) load max. capacitive load 100µF (equivalent to approx. 250 W of LED load)
Load (DC)	max 16A@24V
Power Consumption	max 1.5W
4x5A Output module	
Type	4 x SPST NO, dry contacts
Load (AC)	250V max. 5A for resistive (cos(fi)=1) load 250V max. 2A for inductive (cos(fi)=0.4) load max. capacitive load 40µF (equivalent to approx. 100 W of LED load)
Load (DC)	max 5A@24V
Power Consumption	max 1.5W
0-10V Output module	
Load	max. 20mA/Channel
PWM Output module	
Type	PWM type LED dimmer outputs
Voltage	12 – 48 V DC
Load/Ch	max 8A/channel
Load/board	max 24A/board
Power Consumption	max 3.5W
2x16A.BI Output module	
Type	2 x SPDT NO, NC, dry contacts
Load (AC) for NO	250V max. 16A for resistive (cos(fi)=1) load 250V max. 8A for inductive (cos(fi)=0.4) load
Load (AC) for NC	250V max. 5A for resistive (cos(fi)=1) load
Load (DC)	max 8A@24V
Power Consumption	0W
1xSH Motor controller module	
Type	relay outputs for direction control
Max voltage	250V AC

Load	Max. 4A for inductive (cos(fi)=0.4) load
Power Consumption	max 1.5W
FanCoil Controller NTC	
Type	FanCoil Controller for NTC sensors
Load	6 x NO Relay Outputs max. 5A @ 230V AC each (Heating, Cooling, Low, Medium, High, Auxiliary)
Power Consumption	1,3W (max.: 1,5W)
Number of temperature sensors	2 NTC temperature sensors
Supported sensors	NTC10K-B3950, BAPI-10k-2, NTC10K-B4100, NTC10K-B3435
Temperature accuracy	0.1°C for temperature sensor NTC1 0.1°C or 1°C for temperature sensor NTC2
FanCoil Controller TS	
Type	FanCoil Controller - works with the OPTI Thermostat
Load	6 x NO Relay Outputs max. 5A @ 230V AC each (Heating, Cooling, Low, Medium, High, Auxiliary)
Power Consumption	1,8W (max.: 2,5W)
Temperature sensor	TMP100 temperature sensor (part of the OPTI Thermostat)
2xDALI2	
Device Types	DT6 and DT8 (RGBW, Temperature Color, XY coordinates) DALI-2 sensors, pushbuttons and other input devices
PWR IN+, PWR IN-	Standard DC power supply 12,5-22,5 V DC (15-16 V DC is recommended), 1A, input power for DALI output board
DA1+, DA1-	DALI-2 bus 1 (up to 64 DALI devices)
DA2+, DA2-	DALI-2 bus 2 (up to 64 DALI devices)
Connectors	
Input Terminals	1.5mm² screw terminals
Output Terminals	2.5mm² screw terminals
LAN (100Mb/s)	RJ45 Ethernet Connector
Environmental	
Operating Temperature	0 ºC – 40 ºC (32 ºF – 104 ºF)
Storage Temperature	-20 ºC – 60 ºC (-4 ºF – 140 ºF)
Humidity	Up to 93% (Non condensing)
Physical	
Dimensions (H x W x D)	157 mm x 86 mm x 57 mm (9 DIN unit width)
Weight	max 0.4 kg
Installation	Standard DIN Rail Mount

Approvals	Package Content	Warranty
CE	Opti Lite	2 years

REFERENCES

Search Utility: FNIP Manager (Registration needed on www.p5.hu)

OptiLite TCP Communication Protocol Description:(Please email us at support@p5.hu to request the Communication Protocol Description)

OptiLite Data Sheet

OPTILITE_DALI Installation and Operations manual

CONTACT DETAILS

support@p5.hu

http://p5.hu/index.php/support/contact-technical-support