

USER MANUAL

soleux

IP controlled PDU

ENGINEERED AND ASSEMBLED IN THE EU

+33 678 630 968

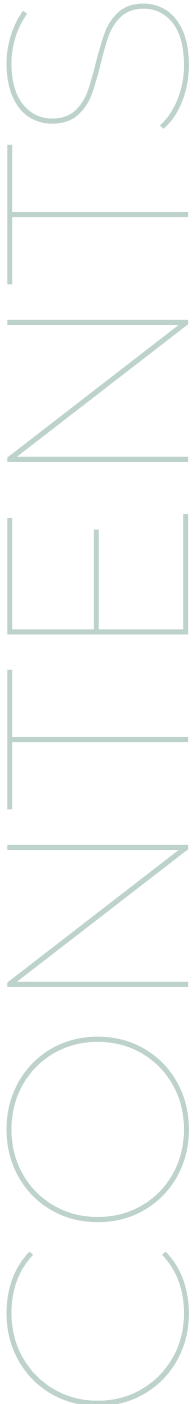
office@soleux.com

support@soleux.com

soleux.com



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ABOUT

- This guide provides a brief introduction of the SOLEUX IP controlled PDUs:
 - SLX-3008-IP
 - SLX-3007-M-IP
 - SLX-3006-M-IP-2R
 - SLX-3006-IP
 - SLX-3005-M-IP
 - SLX-3004-M-IP-2R
- All images, parameters and descriptions documented in this guide are used for demonstration only.

With 6 to 8 smart outlets and Individual control for each outlet by TCP/IP raw commands, HTTP or personalized Windows software, the Soleux IP controlled PDU is ideal for any professional AV & IT installation and as well for domestic usage.

This consist with On/OFF scheduling for each individual outlet and in advance, power tasks can be defined daily , weekly and user definition.

The Web interface of this smart extension could provides easy step-by-step installation instructions and convenient remote control from anywhere.

- **Indicator light:** An indicator light for each outlet which shows the user which outlet is active
- **Manual Control:** Enables to control each outlet manually, installed on the PDU front side for models: SLX-3007-M-IP, SLX-3006-M-IP-2R, SLX-3005-M-IP, SLX-3004-M-IP-2R
- **Safety:** Manual override button in case of internal controller failure.
- **Easy Integration:** Easy integration with any third-party control system.
- Complete set of TCP/IP commands list available.
- **Temperature Control:** Internal temperature sensor with Internal FAN cooler which is manageable from the web interface.
- **Scheduling:** Build in Real Time Clock which enables to schedule each outlet.

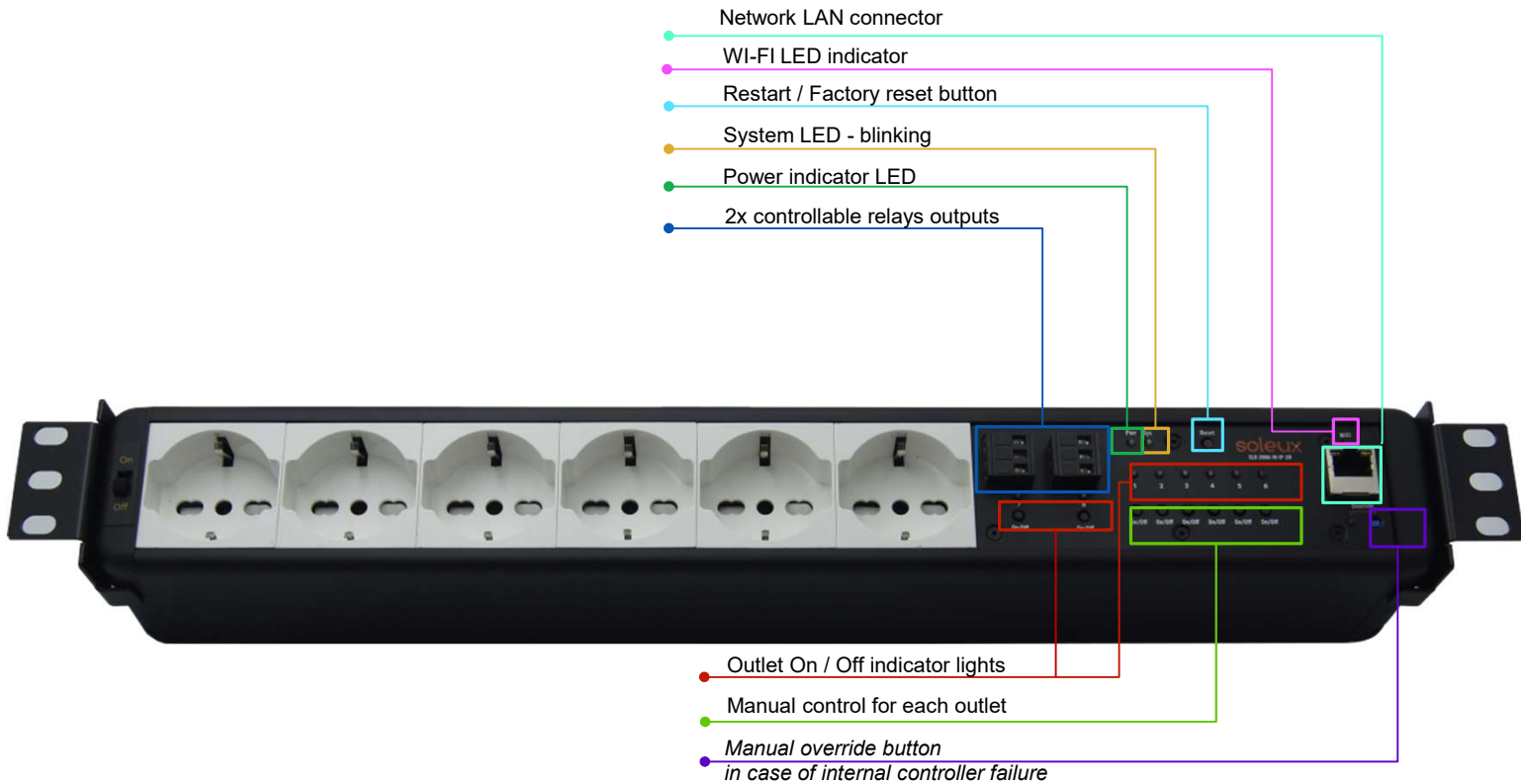




FEATURES

- Individual control for each outlet by HTTP or TCP/IP
- On/Off scheduling for each individual outlet. Power tasks can be defined daily, weekly and user definition.
- Support indicator light notice. There is an indicator light for each outlet which shows the user which outlet is active.
- Manual control for each outlet, installed on the PDU front side, for models containing the letter "M" in the name.
- Manual override button in case of internal controller failure.
- Last known state power-on for each outlet.
- Input Voltage: 100-240V 50/60Hz
- Max Load: 3500W 16A
- Outlet: AC 100-240V, 50/60Hz 6A max
- Communication: Wi-Fi and LAN
- Wireless Frequency: 2.4GHz(optional)
- Wireless IEEE Standards: 802.11 a/b/g/n/ac
- Easy integration with any third-party control system. Complete TCP/IP command list available.
- Internal temperature sensor
- Internal FAN cooler manageable from the web interface.
- Aluminum case
- Power Cable: approx. 2m & 3 x 1.5 mm
- 19" rack mounting brackets for the following models: SLX-3008-IP, SLX-3007-M-IP, SLX-3006-M-2R-IP(optional)

APPEARANCE



SETTING UP

- Connect the power cord of the PDU to the power supply outlet.
- Plug your equipment into any of the PDU's output plugs.
- Connect an Ethernet cable from the PDU to your network
- By default, the PDU comes with the network setting on DHCP. Check your router DHCP lease list and identify the IP address assigned to the Soleux PDU.
- In case you have no DHCP server into the network, you can reset the PDU to the default network settings by push and hold the "reset" button for more then 15 seconds. The default IP address is: 10.10.10.10.
- Manually set the IP on your computer to 10.10.10.xxx (except 10.10.10.10).
- Open a web browser and type in the PDU IP address. The login page should open.
- Default credentials: User: admin / Password: admin

CE COMPLIANCE STATEMENT



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the CE Rules. These limits are designed to provide reasonable protection against harmful interference in a residential and marine installation.

This equipment can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

TECHNICAL SUPPORT

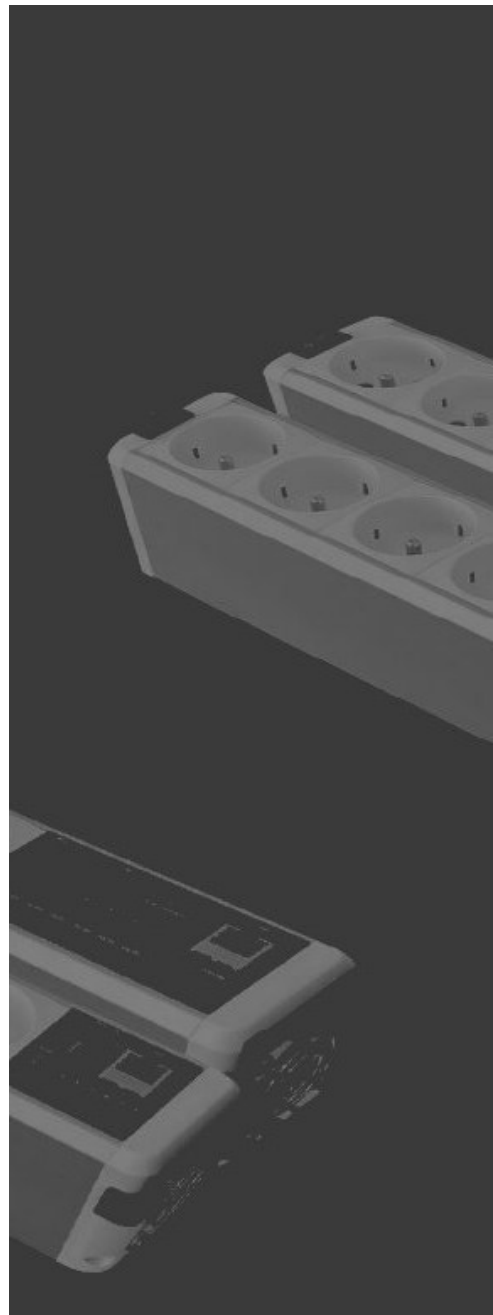
SOLEUX TECHNICAL SUPPORT is an integral part of our commitment to provide long term solution. If you need any help, send us an email to support@soleux.com and our team is always prepared to support you. For the latest drivers/software, please visit www.soleux.com.

WARRANTY INFORMATION

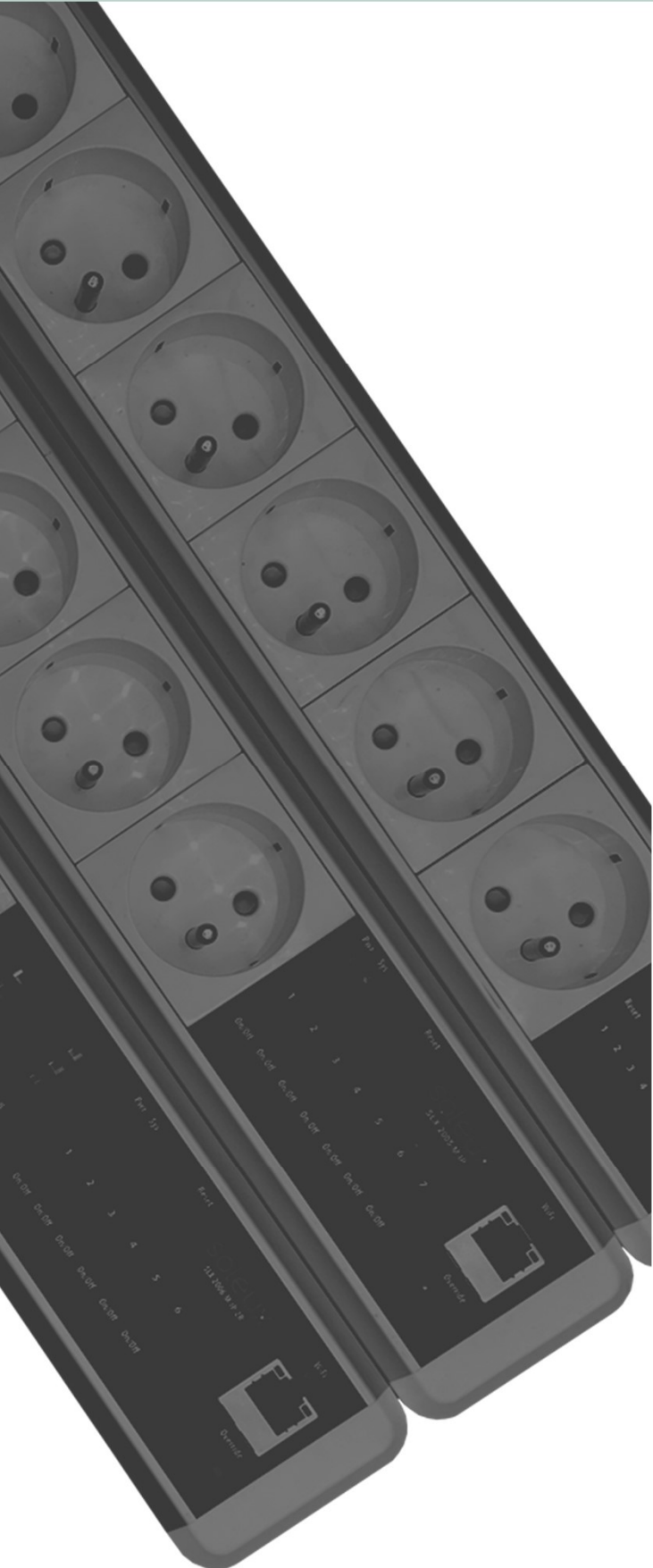
THIS PRODUCT IS BACKED BY A 5 YEARS WARRANTY.

In addition, Soleux warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion.

The warranty covers only the cost for parts and reparation labor. Soleux does not warrant its products from defects or damages arising from inappropriate use, abuse, alteration or normal wear and tear.



LIMITATION OF LIABILITY



In no event shall the liability of Soleux SRL (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

IP CONTROLLED PDU - ENGINEERED AND ASSEMBLED IN EU

HIGH PERFORMANCE IP CONTROLLED PDU

- INDIVIDUAL CONTROL FOR EACH OUTLET BY NETWORK.
- ON/OFF SCHEDULING FOR EACH INDIVIDUAL OUTLET.
- POWER TASKS CAN BE DEFINED DAILY, WEEKLY AND USER DEFINITION.
- EASY INTERGRATION WITH ANY THIRD-PARTY CONTROL SYSTEM.

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PDU CONFIGURATION

Login



Soleux PDU

Username
admin

Password
admin

Login

Dashboard

Dashboard

Date : 2025-02-21 -/ Time : 21:38 Fan status : OFF CPU Temp : 42.16 °C -/ Internal Temp : 35.13 °C

Memory Usage : 40.53% CPU Usage : 25% External Temp : 18.875 °C

RMS Current : 0A RMS Voltage : 228.7V Active Power : 0 W

Outputs description

Direct Outputs Control Buttons

O-1	O-2	O-3	O-4	O-5	O-6	O-7
Active	Active	Active	Active	Active	Active	Active
Restart	Restart	Restart	Restart	Restart	Restart	Restart

Command for 5 sec channel restart. Toggle command switching channel On or Off.

Virtual Inputs

I-1	I-2	I-3	I-4	I-5	I-6	I-7	I-8
I-9	I-10	I-11	I-12	I-13	I-14	I-15	I-16

Physical and Virtual INPUTS

PDU POWER METER

Power Meter

Power Meter

Date : 2025-02-21 -/- Time : 22:07

Fan status : OFF

CPU Temp : 42.76 °C -/- Internal Temp : 35.19 °C

Memory Usage : 41.14%

CPU Usage : 71.9%

External Temp : 18.937 °C

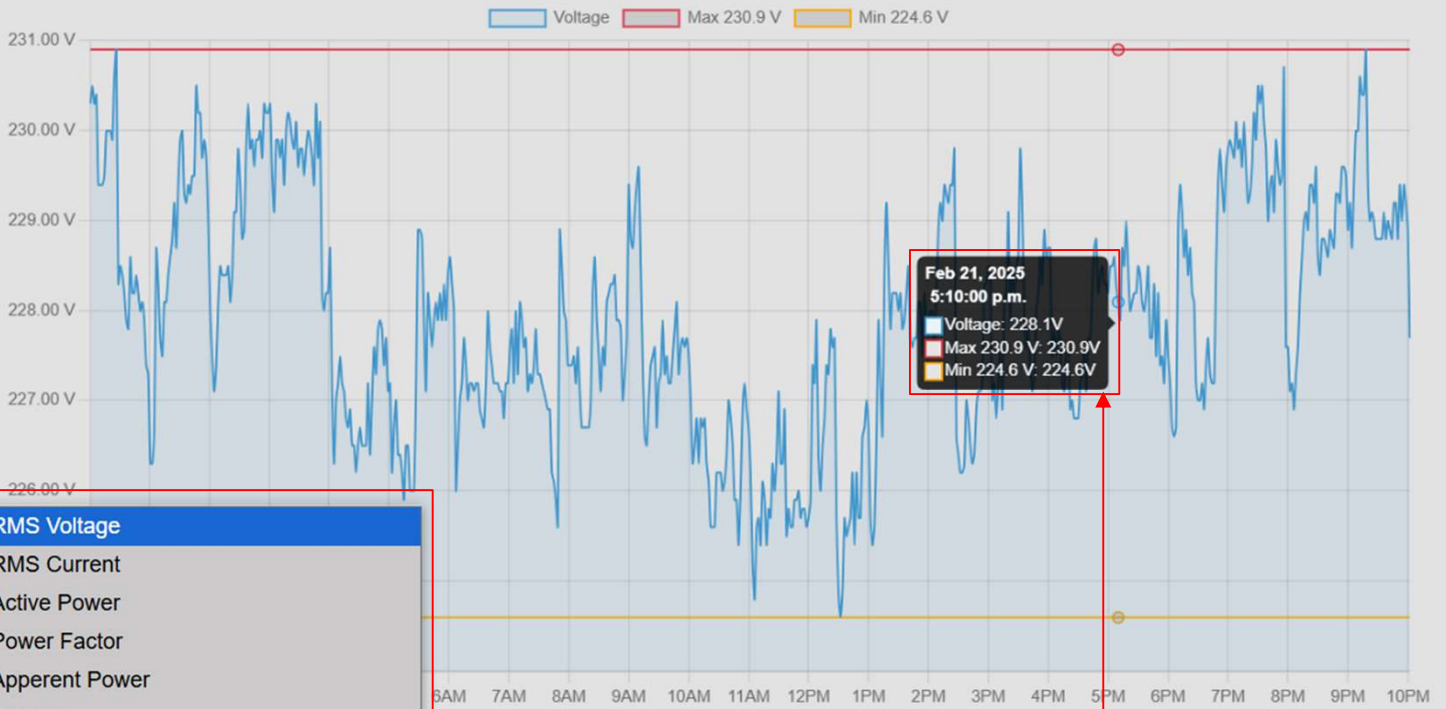
RMS Current : 0A

RMS Voltage : 228.2V

Active Power : 0 W

Power Meter History

Select the days interval 21/02/2025 - 21/02/2025



RMS Voltage

RMS Current

Active Power

Power Factor

Apperent Power

Energy

RMS Voltage



Select the parameter you want to see the chart for

Move the mouse over the chart to get the detailed informations

PDU I/O ASSIGNMENT

I/O Configuration

Pin Management

📅 Date : 2025-02-21 -/- Time : 22:21	🌀 Fan status : OFF	🌡️ CPU Temp : 42.4 °C -/- Internal Temp : 35.13 °C
📊 Memory Usage : 36.46% 	📊 CPU Usage : 75.4% 	🌡️ External Temp : 0 °C
⚡ RMS Current : 0A	⚡ RMS Voltage : 229V	🔌 Active Power : 0 W

Outputs

Input/Output	O-1	O-2	O-3	O-4	O-5	O-6	O-7	O-8
I-1	TOGGLE							
I-2		TOGGLE						
I-3			TOGGLE					
I-4				TOGGLE				
I-5					TOGGLE			
I-6						TOGGLE		
I-7							TOGGLE	
I-8								TOGGLE
I-9	ON	ON	ON	ON				
I-10	OFF	OFF	OFF	OFF				
I-11					ON	ON	ON	ON
I-12					OFF	OFF	OFF	OFF
I-13		TOGGLE		TOGGLE		TOGGLE		TOGGLE
I-14	TOGGLE		TOGGLE		TOGGLE		TOGGLE	
I-15	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
I-16	ON	ON	ON	ON	ON	ON	ON	ON

* click on each cell to switch between input actions and assign I/O

Inputs

Mapping Functions

Supported Mapping Functions

- On
- Off
- Toggle

PDU I/O ASSIGNMENT

I/O Configuration

Input Pin Settings		Inputs Name	Enable / Disable Inputs
#	Input name		Enable / Disable
1	<input type="text" value="I-1"/>		<input checked="" type="checkbox"/>
2	<input type="text" value="I-2"/>		<input checked="" type="checkbox"/>
3	<input type="text" value="I-3"/>		<input checked="" type="checkbox"/>
4	<input type="text" value="I-4"/>		<input checked="" type="checkbox"/>
5	<input type="text" value="I-5"/>		<input checked="" type="checkbox"/>
6	<input type="text" value="I-6"/>		<input checked="" type="checkbox"/>
7	<input type="text" value="I-7"/>		<input checked="" type="checkbox"/>
8	<input type="text" value="I-8"/>		<input checked="" type="checkbox"/>
9	<input type="text" value="I-9"/>		<input checked="" type="checkbox"/>
10	<input type="text" value="I-10"/>		<input checked="" type="checkbox"/>
11	<input type="text" value="I-11"/>		<input checked="" type="checkbox"/>
12	<input type="text" value="I-12"/>		<input checked="" type="checkbox"/>
13	<input type="text" value="I-13"/>		<input checked="" type="checkbox"/>
14	<input type="text" value="I-14"/>		<input checked="" type="checkbox"/>
15	<input type="text" value="I-15"/>		<input checked="" type="checkbox"/>
16	<input type="text" value="I-16"/>		<input checked="" type="checkbox"/>

Inputs Name : Here you can name the Inputs according to your needs

Enable / Disable : Disable Virtual and Physical Inputs

PDU I/O ASSIGNMENT

I/O Configuration

Output Pin Settings									
#	Turn Off Disable	Restart Disable	Output name	Switch ON Delay (10ms)	Switch OFF Delay (10ms)	ON Run Time (10ms)	OFF Run Time (10ms)	Startup ON Delay (Seconds)	Initial State
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Off <input type="button" value="v"/>
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 2"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	On <input type="button" value="v"/>
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 3"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Last State <input type="button" value="v"/>
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 4"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Last State <input type="button" value="v"/>
5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 5"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Last State <input type="button" value="v"/>
6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 6"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Last State <input type="button" value="v"/>
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 7"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Last State <input type="button" value="v"/>
8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="O - 8"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	Last State <input type="button" value="v"/>

* Delay times and Run times are in 10ms
* To disable 'On Run Time' or 'Off Run Time' set the value to 0
* Start Delay are in seconds

Rewrite data to Hardware

- Turn Off Disable : Prevents the output from being Turned off
- Restart Disable : Prevents the output from being Restarted
- Output name : Here you can name the Outputs according to your needs
- Switch On Delay : Number of 10ms intervals between the command and output Turn on.
- Switch Off Delay : Number of 10ms intervals between the command and output Turn off.
- On Run time : Number of 10ms intervals for outputs to stays on, after this time output will be turned off
- On Run time : Number of 10ms intervals for outputs to stays off, after this time output will be turned on
- Startup On Delay : Number of seconds before the for output turns on after a cold start of the PDU (if initial state is set to On or if the last state is on),
- Initial State : Initial state of the output after a cold start of the PDU
- Rewrite data to Hardware : Rewrite the settings in the page, to the internal MCU
- Note - Settings are written to the internal MCU when the changes are made

AUTOMATION

Automation

PING Watchdog

PING Interval 3 Min

IP Address Select Output O - 1

No.	IP Address	Output	Action
-----	------------	--------	--------

TCP Commands

Select Input I - 1 Target IP Module Port 5005 Command to Send

No.	Input Channel	IP Address	Port	Command	Action
1	I - 1	10.100.20.32	5005	AT+ON:1	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
2	I - 2	10.100.20.32	5005	AT+OFF:1	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
3	I - 1	10.100.20.32	5005	AT+ON:0	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
4	I - 2	10.100.20.32	5005	AT+OFF:0	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Ping Watchdog : PDU will ping the Ip address specified and if the ping fails, then the PDU it will Restart the output specified. This function can be used to monitor and restart network devices like CCTV cams automatically.

TCP Commands : PDU will establish a TCP connection to the IP/Port specified and send the command specified when the status of the Input change. This function is used to link PDUs and other Soleux devices or other devices that support TCP commands together. If multiple command are to be sent from the same input, they will be sent in the order they appear in the list

AUTOMATION

External temp sensor

Temp Based Control (Ref Value : External Temp : 19.00 °C)

Select Output: O-1 Condition: Higher Than Temp Value: Operation:

No.	Output	Output Status	Condition	Temp	OP Type	Enabled	Action
1	O-1	Disabled	Higher Than	27	On	<input checked="" type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
2	O-1	Disabled	Less Than	28	Off	<input checked="" type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
3	O-2	Disabled	Higher Than	29	On	<input type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
4	O-3	Disabled	Higher Than	30	On	<input type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
5	O-4	Disabled	Higher Than	31	On	<input type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
6	O-4	Disabled	Less Than	27	Off	<input type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
7	O-6	Disabled	Higher Than	33	On	<input type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
8	O-6	Disabled	Less Than	27	Off	<input type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

External Temp(optional) can be used to control Outputs. Function can be used to control thermal control devices like fan, heater and AC units

Output : Output to be controlled

Output Status : Current status of the output (Active = On, Disabled = Off

Condition : Condition to be used for controlling,
Higher than : rule will be applied if the sensor temp is higher then the set value
Less then : rule will be applied if the sensor temp is less then the set value

Temp Value : Set Value

Operation : Operation to run when the condition is fulfilled, supported operations are: On, Off and Restart

Re Run All Rules : Force the device to re run all rule. This can be used to force the PDU to reevaluate the rules after a settings has been changed

CHANNEL 1

ONE-TIME SCHEDULES

DATE / HOUR 10/12/2021 17:28	ACTION Restart		Edit	Delete	
DATE / HOUR <input type="text"/>	ACTION On		Add New Rule		

RECURRING SCHEDULES

HOUR 17:28 pm	ACTION Off	Weekly	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Edit	Delete
HOUR 17:29 pm	ACTION On	Weekly	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Edit	Delete
HOUR <input type="text"/>	ACTION On	Weekly	Tue	Wed	Thu	Fri	Sat	Sun	Add New Rule		

One-Time Schedules : Create a schedule action which will run only one time at the selected date and time.

Recurring schedules : Create a schedule action which will run every week, every month or every year.

For weekly actions : select the time of the action and the day/days of the week.

For monthly actions : select the time of the actions and date of the month.

For yearly actions : select the time of the actions, the month and date of the month.

There is no limit on the number of the scheduled actions.
Each rule can be edited and modified or deleted independently.

GENERAL SETTINGS

Change the PDU name

Unit Name

Update Unit Name

Set the time zone and time

Timezone

Set Timezone

Current Date/Time

Set Date Time

Sync With Computer Time

Time sync interval (min)

NTP server

Enable

NTP Test

Update NTP Setting

Change username and password

Username

Change password

Update User Settings

Backup config file

Download

*Press "Download" button to save configuration

Upload config file

Upload

* The system will restore the configuration to uploaded backup file.

Unit Name	: Set the Name of the PDU, this name will also be the host name for the unit on network
Username	: Set the Username and password (we recommend changing the password upon first use) for login into the web interface
Time zone	: Time Zone for the device
Current Date / Time	: This section can be used to set the device time Manually or sync with the PC
Time sync interval	: Time interval for the PDU to sync time with the Given NTP server
NTP Server	: IP / URL to a NTP server (Default : time.google.com)
Enable	: Enable NTP service
Backup Config	: Download the current configuration from the PDU
Upload Config	: Upload the config file to the device

- Save the configuration when all the modifications are finished.

NETWORK SETTINGS

Connected

IP Address: 10.100.20.51
Subnet mask: 255.255.255.0
Default gateway: 10.100.20.1

Dynamic Static

Save

Network configuration on DHCP mode for LAN connection

Set the PDU's LAN connection on manual entry network configuration

NETWORK SETTINGS

Connected

IP Address: 10.100.20.51
Subnet mask: 255.255.255.0
Default gateway: 10.100.20.1

Dynamic Static

IP Address: 10.100.20.99
Subnet mask: 255.255.255.0
Default gateway: 10.100.20.1

Save

Manually configuration for LAN connection

Save the configuration when all the modifications are finished.

Fan cooler Temperature settings

Low Temperature: 50 High Temperature: 52

ON OFF AUTO

Save

Reboot System reboot action (no effect over the outputs).

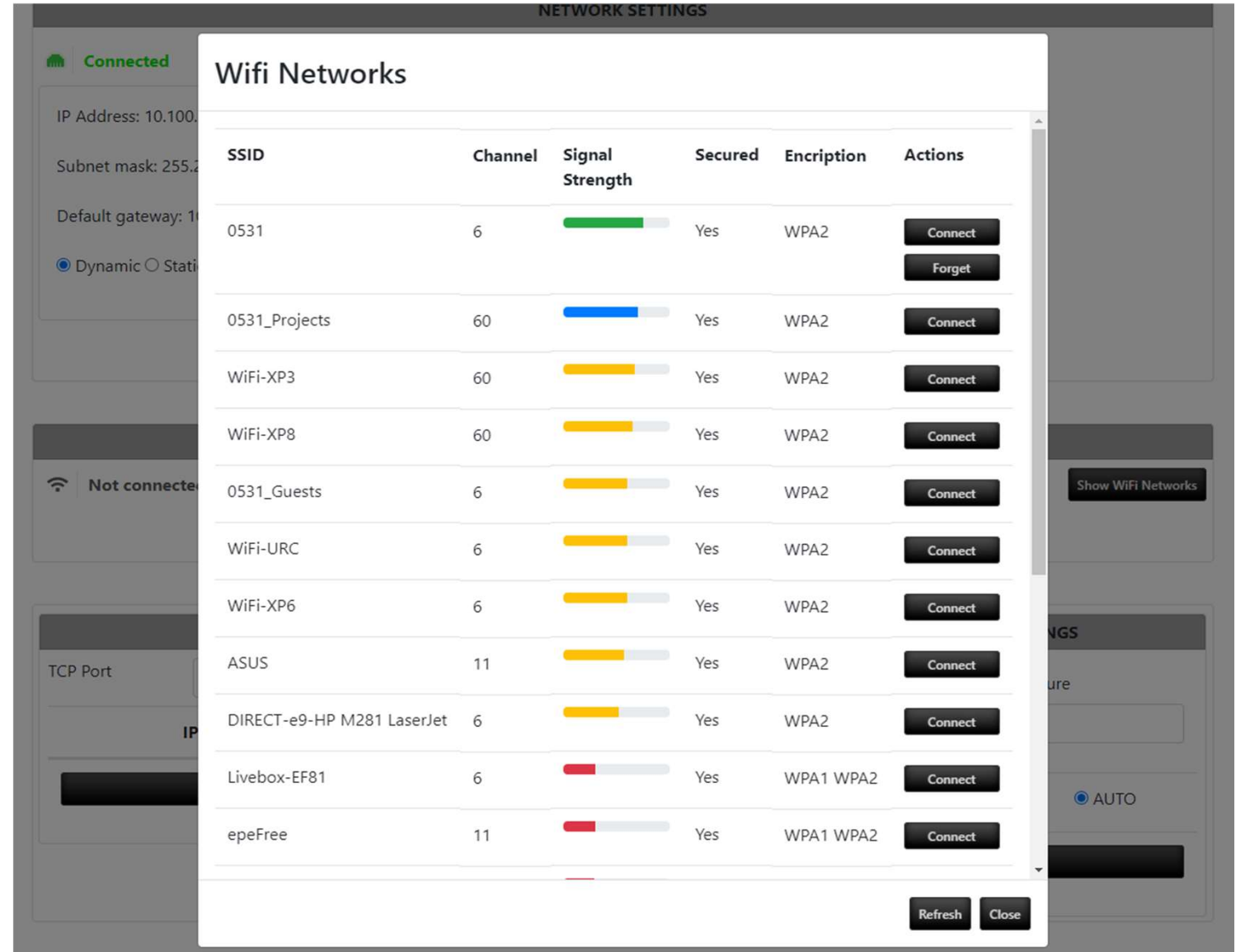
- Low Temperature : Fan turns off when internal temp sensor value is below this value
- High Temperature : Fan turns on when internal temp sensor value is above this value
- Fan Control Mode : On = Fan is always on
Off= Fan is always off
Auto = Temp sensor controls the fan

Reboot : Reboot the PDU

Wi-Fi Settings



On PDUs with a WIFI module, Wi-Fi settings will be displayed. Click on the "Show Wi-Fi Networks" button to get the available Wi-Fi networks for connection.



Select the network you want to use and click "Connect". Input the correct password and wait until the connection is established.

Enable HTTPs for web interface

Installed Certificate information

HTTPS SETTINGS

ENABLE/DISABLE SETTINGS

Enable Disable

* The system will restart once you change the settings here.

Save

CURRENT CERTIFICATE DETAILS

Common Name
localhost

Start Date
Mar 30 08:23:23 2025

End Date
Mar 28 08:23:23 2035

SECURITY

Key File *
Choose File No file chosen

Certificate File *
Choose File No file chosen

Certificate Chain *
Choose File No file chosen

Update SSL

After updating SSL Certificates, please restart the device for them to take effect.

SELF SIGNED CERTIFICATE

Country Name *
Romania

State or Province Name (full name)
ALBA county

Locality Name *
Teius

Organization Name *
soleux

Organizational Unit Name *
Engineering

Common Name *
localhost

Email Address
support@soleux.com

Self Signed CERT

Self signed CERT created sucesfully!

Upload a Certificate to be installed into the PDU

Key file : Private Key file (.Pem, .Key)
Certificate : Signed certificate file (.Pem, .Cet)
Certificate Chain : Root Certificate chain (.ca-bundle)

PDU can generate its own self signed certificate.

TCP/MQTT SETTINGS

ALLOW TCP CONTROL FROM

Disable

TCP Port

IP ADDRESS **SELECT**

10.100.20.34 ✎ 🗑

Add New IP

MAC ADDRESS **SELECT**

00:B0:D0:63:C2:26 ✎ 🗑

00:B0:D0:63:C2:27 ✎ 🗑

Add New MAC

MQTT SETTINGS

Disable

User

Password

Port

Host

Timeout

Tx Topic

Rx Topic

Update MQTT Settings

TCP control filtering

MQTT Settings

When the "Disable" checkbox remains unchecked, the PDU will exclusively accept SSH and TCP direct commands from devices listed either by their IP address or MAC address.

This functionality is particularly advantageous within networks utilizing DHCP.

Conversely, when the "Disable" checkbox is enabled, the PDU will accept incoming SSH and direct TCP commands from any device connected to the network.

It is important to note that if you are utilizing the TCP filtering feature, you must include either the IP address or MAC address of the Windows machine running the Windows control application in your whitelist to enable PDU control.

In scenarios where the Windows control application machine frequently moves across VLANs or does not possess a dedicated IP address, it is recommended to whitelist its MAC address within this list for optimal performance.

MQTT (Message Queuing Telemetry Transport) is a standards-based messaging protocol, or set of rules, used for machine-to-machine communication.

When the "Disable" checkbox remains unchecked, the function is active.

Use your credentials to use MQTT.

Then click the "Update MQTT Settings" button.

SYSTEM LOGS

Select time interval for logs

From To

Tags

Filter by tags

Date/Time	Tag	Status	Note
2000-01-04 01:41:29	Channel 1	ON	Manual Web Control
2000-01-04 01:41:27	Channel 2	ON	Manual Web Control
2000-01-04 01:41:08	Channel 2	OFF	Manual Web Control
2000-01-04 01:41:06	Channel 1	OFF	Manual Web Control

System restart procedure:

- Push and hold the “Reset” button for 5 seconds and the PDU system will restart. This operation will have no effect over the outlets.
- System restart can also be done from the webpage -> Settings .

Factory reset:

- Push and hold the “Reset” button for 15 seconds. The PDU will restart and reset to the default factory settings. (IP address: 10.10.10.10, User: admin, Password: admin). This operation will have no effect over the outlets.

Operation and troubleshooting:

- The PDU is ready when the “Sys” LED is blinking(after power on, around 30 seconds).
- The outlet On/Off indicator LED is ON when the outlet is active and OFF when the outlet is disabled.
- In case of any internal failure, the “Sys” LED will turn completely OFF or will stay fully ON. In this case push the override button to activate all the outlets (the blue LED indicator will turn ON).
- Contact our support team for any problem or question you might have: support@soleux.com

TCP/IP active commands for the SLX products with feedback

- Please add a minimum 0.3sec delay between the TCP commands
- All Commands Return
 - OK\r\n or ERROR\r\n
 - Each Line ends with \r\n
 - Command Responses other than OK or ERROR Starts with +<Command Name Without AT >
- TCP Lite Commands when sent to the light port will not send a feedback
- TCP Lite Port is TCP Port + 1 (if TCP port is 5005, the port for lite commands in 5006)

• AT

- Communication status check

Syntax

- AT\r\n
 - Returns:
OK\r\n

Example

```
AT  
OK
```

• AT+OUTSTAT

- Returns status of all outputs, command does not take any parameters

Syntax

- AT+OUTSTAT\r\n
 - Returns:
OUT:<Output>:<ON / OFF>

Example

```
AT+OUTSTAT  
OUT:0:ON  
OUT:1:ON  
OUT:2:ON  
OUT:3:ON  
OUT:4:OFF  
OUT:5:OFF  
OUT:6:OFF  
OUT:7:OFF  
OUT:8:OFF  
OUT:9:OFF  
OUT:10:ON  
OUT:11:ON  
OUT:12:OFF  
OUT:13:OFF  
OUT:14:OFF  
OUT:15:OFF
```

```
OK
```

• AT+OUTSTAT:X:E

- Returns status of a given output
- Device automatically broadcast this response when output change

Syntax

- AT+OUTSTAT :<Output>:E:\r\n
 - Output : 0-15 (Output 1 to 16)
 - Returns:
OUT:<Output>:<ON / OFF>

Example

```
AT+OUTSTAT:1:E  
OUT:1: ON
```

```
OK
```

• AT+INSTAT

- Returns status of all Inputs, command does not take any parameters

Syntax

- AT+INSTAT\r\n

- Returns:

IN:<Output>:<ON / OFF>

- ON = Button is Released, OFF = Button is Pressed
- Inputs 16-31 are used for system functions and not used

Example

AT+INSTAT

IN:0:ON

IN:1:ON

IN:2:ON

IN:3:ON

IN:4:ON

IN:5:ON

IN:6:ON

IN:7:ON

IN:8:ON

IN:9:ON

IN:10:ON

IN:11:ON

IN:12:ON

IN:13:ON

IN:14:ON

IN:15:ON

IN:16:OFF

IN:17:OFF

IN:18:OFF

IN:19:OFF

IN:20:OFF

IN:21:OFF

IN:22:OFF

IN:23:OFF

IN:24:OFF

IN:25:OFF

IN:26:OFF

IN:27:OFF

IN:28:OFF

IN:29:OFF

IN:30:OFF

IN:31:OFF

OK

• AT+INSTAT:X:E

- Returns status of a given input
- Device automatically broadcast this response when input changes

Syntax

- AT+INSTAT :<Input>:E:\r\n

- Input : 0-15 (Output 1 to 16)

- Returns:

IN:<Output>:<ON / OFF>

- ON = Button is Released, OFF = Button is Pressed

Example

AT+INSTAT:1:E

IN:1: ON

OK

• AT+TOGGLE:X:E

- Toggle the state of given output
- Also supported on Light port

Syntax

- AT+TOGGLE:<Output>:E:\r\n
 - Output : 0-15
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+TOGGLE:1:E:\r\n
```

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+TOGGLE:2:E
```

```
OK
```

```
+OUT:2:OFF
```

• AT+ON:X:E

- Switch ON an output
- Also supported on Light port

Syntax

- AT+ON :<Output>: E:\r\n
 - Output : 0-15
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+ON:1:E:\r\n
```

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+ON:2:E
```

```
OK
```

```
+OUT:2:ON
```

• AT+OFF:X:E

- Switch OFF an output
- Also supported on Light port

Syntax

- AT+OFF :<Output>: E:\r\n
 - Output : 0-15
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+OFF:1:E:\r\n
```

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+OFF:2:E
```

```
OK
```

```
+OUT:2:OFF
```

AT Commands

• AT+RESTART:X:E

- Restart an output. Time interval between Off & On is 5 Seconds
- Also supported on Light port

Syntax

- AT+RESTART :<Output>: E\r\n
 - Output : 0-15
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+RESTART:1:E:\r\n
```

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+RESTART:2:E
```

```
OK
```

```
+OUT:2:OFF
```

```
+OUT:2:ON
```

• AT+SETINPUT:X:Y:E

- Simulate a buttons press (Physical or Virtual)
- Also supported on Light port

Syntax

- AT+SETINPUT:<Input>:<State>:E\r\n
 - Input : 0-15 (Input 1 to 16)
 - State : T = True, Set input
F = False, Clear input
P = Pulse, Pulse input
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+SETINPUT:1:T:E:\r\n
```

```
AT+SETINPUT:1:F:E:\r\n
```

```
AT+SETINPUT:1:P:E
```

```
OK
```

```
+IN:1:ON
```

```
+IN:1:OFF
```

```
+OUT:1:OFF
```

• AT+TEMP

- Returns status of all temp sensors and fan Control. command does not take any parameters
- Device automatically broadcast this response every 30sec

Syntax

- AT+TEMP\r\n
 - Returns:

• SYSTEMP:<Temp>	System Temperate
• CPUTEMP:<Temp>	CPU Temperate
• FAN_STATUS:<ON / OFF >	Fan Status
• FAN_HIGH_TEMP:<Temp>	Fan Control High Temp
• FAN_LOW_TEMP:<Temp>	Fan Control Low Temp
• FAN_MODE:<Mode>	Fan Control Mode (auto, on, off)
• EXTERNAL_TEMP:21.562	

Example

```
AT+TEMP
```

```
SYSTEMP:37.437
```

```
CPUTEMP:47.97
```

```
FAN_STATUS:OFF
```

```
FAN_HIGH_TEMP:52
```

```
FAN_LOW_TEMP:50
```

```
FAN_MODE:auto
```

```
EXTERNAL_TEMP:21.562
```

```
OK
```

• AT+MASKEDON:XXXXXX

- Switch ON multiple outputs from a single command.
- Also supported on Light port

Syntax

- AT+MASKEDON<Mask>:\r\n
 - Outputs marked With X will be turned on, Outputs marked with – Will remain unchanged
 - Channel 1 is on the left String can be 16 letter long
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+MASKEDON:XX--XX-XXXX--XX
```

Above command will turn on the out puts 1,2,5,6,8,9,10,11,14,15,

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+MASKEDON:XX--XX-XXXX--XX
```

```
+OUT:0:ON
```

```
+OUT:1:ON
```

```
+OUT:4:ON
```

```
+OUT:8:ON
```

```
+OUT:5:ON
```

```
+OUT:9:ON
```

```
+OUT:10:ON
```

```
+OUT:13:ON
```

```
+OUT:14:ON
```

```
OK
```

• AT+MASKEDOFF:XXXXXX

- Switch ON multiple outputs from a single command.
- Also supported on Light port

Syntax

- AT+MASKEDOFF<Mask>:\r\n
 - Outputs marked With X will be turned off, Outputs marked with – Will remain unchanged
 - Channel 1 is on the left String can be 16 letter long
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+MASKEDOFF:XX--XX-XXXX--XX
```

Above command will turn on the out puts 1,2,5,6,8,9,10,11,14,15,

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+MASKEDOFF:XX--XX-XXXX--XX
```

```
+OUT:1:OFF
```

```
+OUT:4:OFF
```

```
+OUT:5:OFF
```

```
+OUT:0:OFF
```

```
+OUT:8:OFF
```

```
+OUT:9:OFF
```

```
+OUT:7:OFF
```

```
+OUT:13:OFF
```

```
+OUT:10:OFF
```

```
+OUT:14:OFF
```

```
OK
```

- **AT+MASKEDRESTART:XXXXXX**

- Switch ON multiple outputs from a single command.
- Also supported on Light port

Syntax

- AT+MASKEDRESTART<Mask>:\r\n
 - Outputs marked With X will be turned on, Outputs marked with – Will remain unchanged
 - Channel 1 is on the left String can be 16 letter long
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+MASKEDRESTART:XX--XX-XXXX--XX
```

Above command will turn on the out puts 1,2,5,6,8,9,10,11,14,15,

Note

if the command is successful then the device will return the output status as part of the normal status change broadcast system

```
AT+MASKEDRESTART:XX--XX-XXXX—XX
```

```
OK
```

```
+OUT:0:OFF
```

```
+OUT:1:OFF
```

```
+OUT:4:OFF
```

```
+OUT:5:OFF
```

```
+OUT:7:OFF
```

```
+OUT:8:OFF
```

```
+OUT:9:OFF
```

```
+OUT:10:OFF
```

```
+OUT:13:OFF
```

```
+OUT:14:OFF
```

<Broadcast command responses >

```
+OUT:0:ON
```

```
+OUT:1:ON
```

```
+OUT:4:ON
```

```
+OUT:5:ON
```

```
+OUT:7:ON
```

```
+OUT:8:ON
```

```
+OUT:9:ON
```

```
+OUT:10:ON
```

```
+OUT:13:ON
```

```
+OUT:14:ON
```

AT Commands

• AT+REBOOT

- Reboot PDU, command does not take any parameters
- Also supported on Light port

Syntax

- AT+REBOOT\r\n
 - Does not Return any data.

Example

```
AT+REBOOT\r\n
```

```
AT+REBOOT
```

```
<TCP Connection Disconnects due to Reboot >
```

• AT+VER

- Returns the system version information.

Syntax

- AT+VER\r\n
 - Returns:
 - DEVICE:Soleux PDU
 - VER:<Firmware Version> Build : <Firmware Build >
 - RELEASE_DATE:<Release Date>
 - SN:<serial Number>
 - LANMAC:<LAN MAC >
 - WIFIMAC<WIFI MAC>
 - INPUTCOUNT_TOTAL:<Totoal Input Count>
 - INPUTCOUNT_PHY:<Physical Input Count>
 - INPUTCOUNT_VIR:<Virtual Input Count >
 - OUTPUTCOUNT_TOTAL:<Totoal Output Count>
 - OUTPUTCOUNT_PLUG:<Plug Count>
 - OUTPUTCOUNT_RELAY:<Relay Count>

Example

```
AT+VER
```

```
DEVICE:Soleux PDU
```

```
VER:4.0 Build : 40
```

```
RELEASE_DATE:2025-01-25
```

```
SN:02c00081a37ca662
```

```
LANMAC:02:81:a3:7c:a6:62
```

```
WIFIMAC:02:81:a3:7c:a6:62
```

```
INPUTCOUNT_TOTAL:16
```

```
INPUTCOUNT_PHY:0
```

```
INPUTCOUNT_VIR:16
```

```
OUTPUTCOUNT_TOTAL:8
```

```
OUTPUTCOUNT_PLUG:8
```

```
OUTPUTCOUNT_RELAY:0
```

```
OK
```

• AT+TIME

- Returns the system time information.
- Device automatically broadcast this response every 30sec

Syntax

- AT+TIME\r\n
 - SYSTIME:<System time>
 - UPTIME: <Uptime>

Example

```
AT+TIME
```

```
SYSTIME:2025/03/29 19:25:26
```

```
UPTIME: 4 weeks, 1 day, 9 hours, 57 minutes
```

```
OK
```

• AT+NET

- Returns the network information.
- Device automatically broadcast this response every 30sec

Syntax

- AT+NET\r\n
 - Returns:
 - LANIP:<LAN Ip address>
 - WIFIIIP:<Wi-Fi IP address >
 - WIFISSID:<Wi-Fi SSID>
 - APP_NAME:<App name / Host Name>

Example

```
AT+NET
LANIP:10.100.20.108
WIFIIIP:127.0.0.1
WIFISSID:
APP_NAME:Soleux PDU
```

OK

• AT+CHNAMES

- Returns the channel names for inputs and outputs

Syntax

- AT+CHNAMES\r\n
 - Returns:
 - CHNAME_IN:<Channel (0 to 15)>:<Name>
 - CHNAME_OUT:<Channel (0 to 15)>:<Name>

Example

```
AT+CHNAMES
CHNAME_IN:0:I - 1
CHNAME_IN:1:I - 2
CHNAME_IN:2:I - 3
CHNAME_IN:3:I - 4
CHNAME_IN:4:I - 5
CHNAME_IN:5:I - 6
CHNAME_IN:6:I - 7
CHNAME_IN:7:I - 8
CHNAME_IN:8:I - 9
CHNAME_IN:9:I - 10
CHNAME_IN:10:I - 11
CHNAME_IN:11:I - 12
CHNAME_IN:12:I - 13
CHNAME_IN:13:I - 14
CHNAME_IN:14:I - 15
CHNAME_IN:15:I - 16
CHNAME_OUT:0:O - 1
CHNAME_OUT:1:O - 2
CHNAME_OUT:2:O - 3
CHNAME_OUT:3:O - 4
CHNAME_OUT:4:O - 5
CHNAME_OUT:5:O - 6
CHNAME_OUT:6:O - 7
CHNAME_OUT:7:O - 8
```

OK

• AT+SCHEDULE

- Returns schedule information.

Syntax

- AT+SCHEDULE\r\n
 - Returns:

- SCHEDULE_START:<Chennel Num>
- SCHEDULE_RUNONES:ID:<Unique ID>,RELAY:<Chennel Num>,DATETIME:<Date Time>, ACTION:<X>, PROCESSED:<Y>
 - X = Action, 0 = off , 1 = On, 2 = Restart
 - Y = Processed, 1 = Event Already finished, 0 = Event Pending
- SCHEDULE_WEEKLY:ID:<Unique ID>,RELAY:<Chennel Num>,DATETIME:<Time>,ACTION:<X>, MON:<Y>,TUE:<Y>, WED:<Y>,THU:<Y>,FRI:<Y>,SAT:<Y>,SUN:<Y>
 - X = Action, 0 = off , 1 = On, 2 = Restart
 - Y = Day or week selected, 1 = selected, 0 = not selected
- SCHEDULE_END::<Chennel Num>

Example

AT+SCHEDULE

SCHEDULE_START:0

SCHEDULE_RUNONES:ID:170,RELAY:0,DATETIME:2025-03-29T19:38,ACTION:1,PROCESSED:1

SCHEDULE_RUNONES:ID:171,RELAY:0,DATETIME:2025-03-31T19:39,ACTION:1,PROCESSED:0

SCHEDULE_WEEKLY:ID:96,RELAY:0,DATETIME:19:38,ACTION:1,MON:1,TUE:1,WED:1,THU:1,FRI:1,SAT:1,SUN:1

SCHEDULE_END:0

SCHEDULE_START:1

SCHEDULE_END:1

SCHEDULE_START:2

SCHEDULE_END:2

SCHEDULE_START:3

SCHEDULE_END:3

SCHEDULE_START:4

SCHEDULE_END:4

SCHEDULE_START:5

SCHEDULE_END:5

SCHEDULE_START:6

SCHEDULE_END:6

SCHEDULE_START:7

SCHEDULE_END:7

OK

AT Commands

- **AT+GETMAP:X:E**

- Returns mapping for given input

Syntax

- AT+GETMAP:<Input>\r\n

- Returns:

- +GETMAP:<Input Num, 0 to 16>:<mapping for 16 outputs >
- Mapping Values : ON, OFF, TOGGLE, NONE

Example

```
AT+GETMAP:1:E
```

```
+GETMAP:0:TOGGLE:NONE:NONE:NONE:NONE:NONE:NONE:ON:ON:ON:ON:ON:ON:ON
```

```
OK
```

- **AT+SETMAP:X:Y:Z:E**

- Set IO Mapping

Syntax

- AT+SETMAP:<Input>:<Output>:<Mapping>:E\r\n

- Input : 0-15 (Output 1 to 16)
- Output : 0-15 (Output 1 to 16)
- Mapping Values : ON, OFF, TOGGLE, NONE

Example

```
AT+SETMAP:1:5:NONE
```

```
AT+SETMAP:1:5:TOGGLE
```

```
OK
```

AT Commands

• AT+GETOUTCONFIG:X:E

- Returns delays / Config set in IO mapping page for a given out put.

Syntax

- AT+GETOUTCONFIG:<Output>:E\r\n
 - Output : 0-15 (Output 1 to 16)
 - Returns
 - GETDELAYS:<Output>:<On Delay>:<Off Delay>:<On RunTime>:<Off RunTime>:<Startup On Delay>:<Initial State>:<Turn Off Disable>:<Restart Disable>:E
 - On Delay,Off Delay,On RunTime,Off RunTime : 10ms Blocks
 - Startup On Delay : 1Sec Blocks
 - Initial State : 0 = Off, 1 = ON, 2= Last State
 - Turn Off Disable, Restart Disable: 0 = Disabled, 1 = Enabled

Example

```
AT+GETOUTCONFIG:0:E
GETDELAYS:0:1:2:3:0:5:1:0:0:E
OK
```

• AT+SETOUTCONFIG:D:E:F:G:H:I:J:K:L:E

- Set delays / Config set in IO mapping page for a given out put.

Syntax

- AT+SETOUTCONFIG:<Output>:<On Delay>:<Off Delay>:<On Run Time>:<Off Run Time>:<Startup On Delay>:<Initial State>:<Turn Off Disable>:<Restart Disable>\r\n
 - Output : 0-15 (Output 1 to 16)
 - On Delay,Off Delay,On RunTime,Off RunTime : 10ms Blocks
 - Startup On Delay : 1Sec Blocks
 - Initial State : 0 = Off, 1 = ON, 2= Last State
 - Turn Off Disable, Restart Disable: 0 = Disabled, 1 = Enabled
 - Returns: OK\r\n or ERROR\r\n

Example

```
AT+SETOUTCONFIG:1:1:2:45:30:5:2:1:1:E
OK
```

• AT+GETENERGY

- Returns enery meter data

Syntax

- AT+GETENERGY\r\n
 - Returns :GETENERGY:<Voltage (V)>:<Current (A)>:<Power W>:<Apprent Power (VA)>:<Power Factor>:<Total Energy (kWh)>:E

Example

```
AT+GETENERGY
GETENERGY:229.4:0.0:0.0:0.0:0.0:0.0:E
OK
```

AT Commands

• AT+GETSYSDATA

- Returns System data like CPU Usage / Ram

Syntax

- AT+GETSYSDATA\r\n

- Returns :

- GETSYSDATA:TimeStamp:<Time Stamp>
- GETSYSDATA:FreeMem:<Free Memory In MB>
- GETSYSDATA:TotalMem:<Total Memory In MB>
- GETSYSDATA:UsedMem:<Used Memory In MB>
- GETSYSDATA:MemUsage:<Memory Usage %>
- GETSYSDATA:CPUUsage:<CPU Usage %>
- GETSYSDATA:UpTime:<UpTime>

Example

AT+GETSYSDATA

GETSYSDATA:TimeStamp:2025-03-30 09:42

GETSYSDATA:FreeMem:234

GETSYSDATA:TotalMem:491

GETSYSDATA:UsedMem:222

GETSYSDATA:MemUsage:45.21

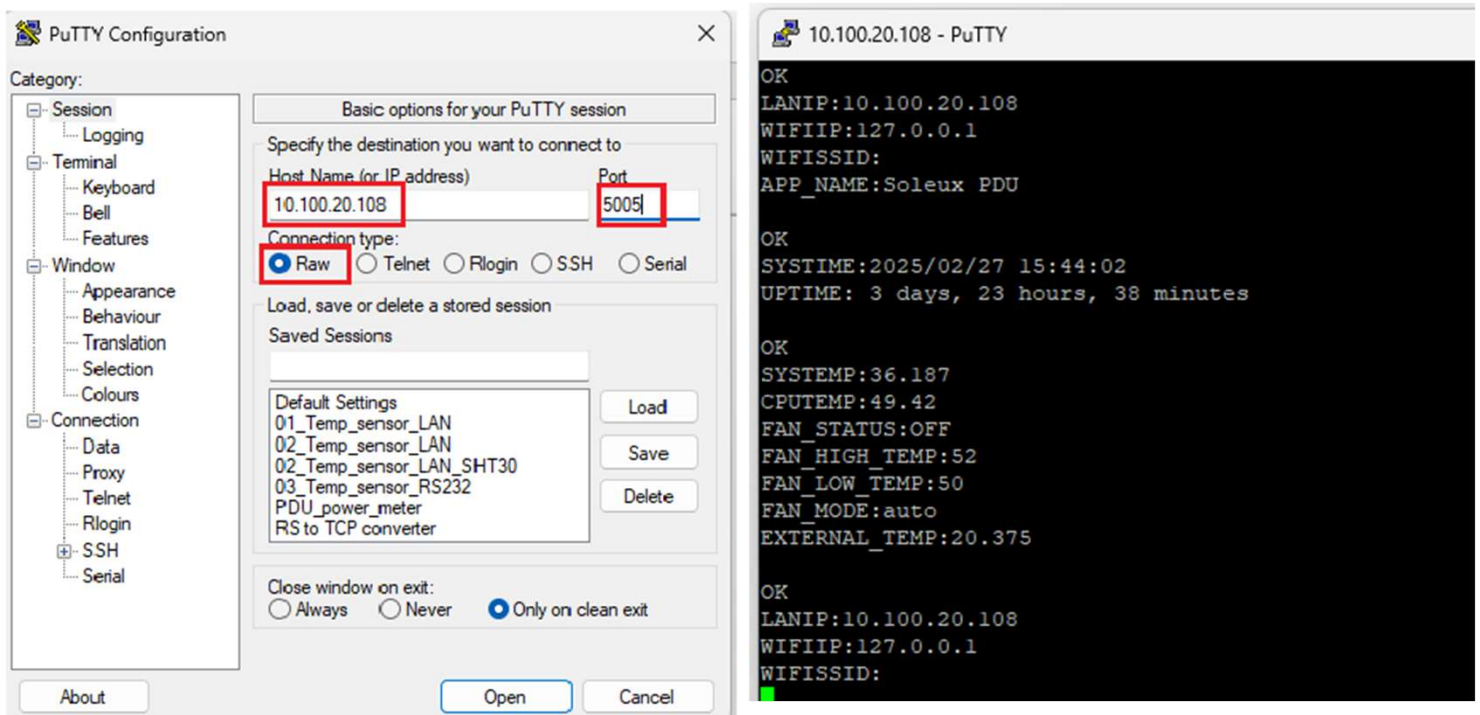
GETSYSDATA:CPUUsage:72.7

GETSYSDATA:UpTime: 4 weeks, 1 day, 23 hours, 15 minutes

OK

For Manual TCP communication tests use putty and select as below:

No user and password necessary ... just make sure you have the "Allow TCP control from" – Disabled or the IP of your device saved into that section.



The image shows two side-by-side screenshots. The left screenshot is the 'PuTTY Configuration' dialog box. The 'Category' list on the left includes Session, Terminal, Window, Appearance, Behaviour, Translation, Selection, Colours, Connection, Data, Proxy, Telnet, Rlogin, SSH, and Serial. The 'Basic options for your PuTTY session' section is active. Under 'Specify the destination you want to connect to', the 'Host Name (or IP address)' field contains '10.100.20.108' and the 'Port' field contains '5005'. Under 'Connection type', the 'Raw' radio button is selected. The 'Saved Sessions' list contains 'Default Settings', '01_Temp_sensor_LAN', '02_Temp_sensor_LAN', '02_Temp_sensor_LAN_SHT30', '03_Temp_sensor_RS232', 'PDU_power_meter', and 'RS to TCP converter'. The 'Close window on exit' section has 'Only on clean exit' selected. The right screenshot is a terminal window titled '10.100.20.108 - PuTTY'. It shows the output of the AT+GETSYSDATA command, including system time, memory usage, and uptime.

Thank you for choosing our products

API active commands for the SLX products with feedback

- Please add a minimum 0.3sec delay between the API commands
- All Commands Return
 - {"Mode": "Response", "Response": "ERROR : <ERROR Mesage>"}
 - or
 - {"Cmd": "AT", "Mode": "Response", "Response": "OK"}
 - Output Format is a JSON

API commands can be sent as a GET Request on http or https (if SSL is enabled)

http://<Ip Address>/cmdapi?cmd=<Command>

https://<Ip Address>/cmdapi?cmd=<Command>

Note : Input numbers starts with 1 and end in 16

Output numbers start with 0 and end in 15

- AT
 - Communication status check
- Syntax
- http://<IP or URL>/cmdapi?cmd=AT
 - Returns:
 - {
 - "Cmd": "AT",
 - "Mode": "Response",
 - "Response": "OK"
 - }

Example

GET <http://10.100.20.34/cmdapi?cmd=AT>

```
{  
  "Cmd": "AT",  
  "Mode": "Response",  
  "Response": "OK"  
}
```

• AT_OUTSTAT

- Returns status of all outputs, command does not take any parameters

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_OUTSTAT`

- Returns:

```
{
  "Cmd": "AT_OUTSTAT",
  "Data": "<Status of all 16Outputs>",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`GET http://10.100.20.34/cmdapi?cmd=AT_OUTSTAT`

```
{
  "Cmd": "AT_OUTSTAT",
  "Data": "OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF:OFF",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_OUTSTAT:X:E

- Returns status of a given output

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_OUTSTAT:<Output>:E`

- Returns:

```
{
  "Cmd": "AT_OUTSTAT:<Output>:E",
  "Data": "OUT:<Output>:<Status>",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`GET http://10.100.20.34/cmdapi?cmd=AT_OUTSTAT:1:E`

```
{
  "Cmd": "AT_OUTSTAT:1:E",
  "Data": "OUT:1:OFF",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT_INSTAT**

- Returns status of all Inputs, command does not take any parameters

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_INSTAT`

- Returns:

```
{
  "Cmd": "AT_INSTAT",
  "Data": "<Status of all 16 Inputs>",
  "Mode": "Response",
  "Response": "OK"
```

}ON = Button is Released, OFF = Button is Pressed

- Inputs 16-31 are used for system functions and not used

Example

`GET http://10.100.20.34/cmdapi?cmd=AT_INSTAT`

```
{
  "Cmd": "AT_INSTAT",
  "Data": "ON:ON:ON:ON:ON:ON:ON:ON:ON:ON:ON:ON:ON:ON:ON:ON",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT_OUTSTAT:X:E**

- Returns status of a given input

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_INSTAT:<Input (1 - 16)>:E`

- Returns:

```
{
  "Cmd": "AT_INSTAT:<Output>:E",
  "Data": "IN:<Input>:<Status>",
  "Mode": "Response",
  "Response": "OK"
```

}

Example

`GET http://10.100.20.34/cmdapi?cmd=AT_INSTAT:1:E`

```
{
  "Cmd": "AT_INSTAT:1:E",
  "Data": "IN:1:OFF",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_TOGGLE:X:E

- Toggle the state of given output

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_TOGGLE:<Output>:E`

- Output : 0-15

- Returns:

```
{
  "Cmd": "AT_TOGGLE:<Output>:E",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

```
GET http://10.100.20.34/cmdapi?cmd=AT_TOGGLE:1:E
```

```
{
  "Cmd": "AT_TOGGLE:1:E",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_ON:X:E

- Switch ON an output

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_ON:<Output>:E`

- Output : 0-15

- Returns:

```
{
  "Cmd": "AT_ON:<Output>:E",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

```
GET http://10.100.20.34/cmdapi?cmd=AT_ON:1:E
```

```
{
  "Cmd": "AT_ON:1:E",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_OFF:X:E

- Switch OFF an output

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_OFF:<Output>:E`

- Output : 0-15

- Returns:

```
{
  "Cmd": "AT_OFF:<Output>:E",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

```
GET http://10.100.20.34/cmdapi?cmd=AT_OFF:1:E
```

```
{
  "Cmd": "AT_OFF:1:E",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_RESTART:X:E

- Restart an output. Time interval between Off & On is 5 Seconds

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_RESTART:<Output>:E`

- Output : 0-15

- Returns:

```
{
  "Cmd": "AT_RESTART:<Output>:E",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

```
GET http://10.100.20.34/cmdapi?cmd=AT_RESTART:1:E
```

```
{
  "Cmd": "AT_RESTART:1:E",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_SETINPUT:X:Y:E

- Simulate a buttons press (Physical or Virtual)

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_SETINPUT:<Output>:<Input>:<State>:E`

- Input : 1-16 (Input 1 to 16)

- State : T = True, Set input
F = False, Clear input
P = Pulse, Pulse input

- Returns

```
{
  "Cmd": "AT_SETINPUT:<Output>:<Input>:<State>:E",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

```
GET http://10.100.20.34/cmdapi?cmd=AT_SETINPUT:16:P:E
```

```
{
  "Cmd": "AT_SETINPUT:16:P:E",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT_TEMP**

- Returns status of all temp sensors and fan Control. command does not take any parameters

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_TEMP`

- Returns:

```
{
  "CPUTemp": "<CPU Temperate>",
  "Cmd": "AT_TEMP",
  "Mode": "Response",
  "SysTemp": " System Temperate>",
  "Response": "OK"
}
```

Example

`GET http://10.100.20.34/cmdapi?cmd=AT_TEMP`

```
{
  "CPUTemp": "54.88",
  "Cmd": "AT_TEMP",
  "Mode": "Response",
  "SysTemp": "0.0",
  "Response": "OK"
}
```

• AT_MASKEDON:XXXXXXX

- Switch ON multiple outputs from a single command.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_MASKEDON:XXXXXXX`

- Outputs marked With X will be turned on, Outputs marked with – Will remain unchanged
 - Channel 1 is on the left String can be 16 letter long

- Returns:

```
{
  "Cmd": "AT_MASKEDON:<mask>",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`AT_MASKEDON:XX--XX-XXXX--XX`

Above command will turn on the out puts 1,2,5,6,8,9,10,11,14,15,

`GET http://10.100.20.34/cmdapi?cmd=AT_MASKEDON:XXXXXXX`

```
{
  "Cmd": "AT_MASKEDON: XXXXXXXX ",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_MASKEDOFF:XXXXXXX

- Switch OFF multiple outputs from a single command.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_MASKEDOFF:XXXXXXX`

- Outputs marked With X will be turned off, Outputs marked with – Will remain unchanged
 - Channel 1 is on the left String can be 16 letter long

- Returns:

```
{
  "Cmd": "AT_MASKEDOFF:<mask>",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`AT_MASKEDOFF:XX--XX-XXXX--XX`

Above command will turn off the out puts 1,2,5,6,8,9,10,11,14,15,

`GET http://10.100.20.34/cmdapi?cmd=AT_MASKEDOFF:XXXXXXX`

```
{
  "Cmd": "AT_MASKEDOFF: XXXXXXXX ",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT+MASKEDRESTART:XXXXXXX

- Switch OFF and ON multiple outputs from a single command.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_MASKEDRESTART:XXXXXXX`

- Outputs marked With X will be turned off and on , Outputs marked with - Will remain unchanged

- Channel 1 is on the left String can be 16 letter long

- Returns:

```
{
  "Cmd": "AT_MASKEDRESTART:<mask>",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`AT_MASKEDRESTART:XX--XX-XXXX--XX`

Above command will turn off the out puts 1,2,5,6,8,9,10,11,14,15,

`GET http://10.100.20.34/cmdapi?cmd=AT_MASKEDRESTART:XXXXXXX`

```
{
  "Cmd": "AT_MASKEDRESTAR:XXXXXXX",
  "Mode": "Response",
  "Response": "OK"
}
```

• AT_REBOOT

- Reboot relay module, command does not take any parameters
- Also supported on Light port

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_REBOOT`

- Returns

```
{
  "Cmd": "AT_REBOOT",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`GET http://10.100.20.34/cmdapi?cmd=AT_REBOOT`

```
{
  "Cmd": "AT_REBOOT",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT+VER**

- Returns the system version information.

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_VER`

- Returns:


```
{
  "Ver": "<Firmware Version> ",
  "WIFIMAC": "<Wi-Fi MAC>",
  "Cmd": "AT_VER",
  "Mode": "Response",
  "DEVICE": "Soleux Relay Module",
  "LANMAC": "<LAN MAC>",
  "HostName": "Soleux Relay Module",
  "ReleaseDate": "<Release Date>",
  "OutCount": "<Totoal Output Count>",
  "SN": "<serial Number>",
  "InCount": "<Totoal Input Count>",
  "Response": "OK",
  "Build": "<Firmware Build >"
}
```

Example

`http://10.100.20.34/cmdapi?cmd=AT_VER`

```
{
  "Ver": "5.0",
  "WIFIMAC": "02:81:d8:34:98:ca",
  "Cmd": "AT_VER",
  "Mode": "Response",
  "DEVICE": "Soleux Relay Module",
  "LANMAC": "02:81:d8:34:98:ca",
  "HostName": "Soleux Relay Module",
  "ReleaseDate": "2025-04-16",
  "OutCount": "16",
  "SN": "02c00081d83498ca",
  "InCount": "16",
  "Response": "OK",
  "Build": "50"
}
```

- **AT_TIME**

- Returns the system time information.

Syntax

- `http://<IP or URL>//cmdapi?cmd=AT_TIME`

- Returns:


```
{
  "UpTime": "<Up Time>",
  "Cmd": "AT_TIME",
  "SysTime": "<System Time>",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`http://10.100.20.34/cmdapi?cmd=AT_TIME`

```
{
  "UpTime": " 21 hours, 14 minutes",
  "Cmd": "AT_TIME",
  "SysTime": "2025/05/02 20:04:45",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT_NET**

- Returns the network information.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_NET`

- Returns:

```
{
  "Cmd": "AT_NET",
  "HostName": "<App name / Host Name> ",
  "LANIP": "<LAN Ip address >",
  "Response": "OK",
  "Mode": "Response",
  "WIFIIP": "<Wi-Fi Ip address>",
  "WIFISSID": "<Wi-Fi SSID>"
}
```

Example

`http://10.100.20.34/cmdapi?cmd=AT_NET`

```
{
  "Cmd": "AT_NET",
  "HostName": "Soleux Relay Module",
  "LANIP": "10.100.20.34",
  "Response": "OK",
  "Mode": "Response",
  "WIFIIP": "127.0.0.1",
  "WIFISSID": ""
}
```

- **AT+SCHEDULE**

- Returns schedule information.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_SCHEDULE`

- Returns:

- SCHEDULE_START:<Channel Num>
- SCHEDULE_RUNONES:ID:<Unique ID>,RELAY:<Channel Num>,DATETIME:<Date Time>, ACTION:<X>, PROCESSED:<Y>
 - X = Action, 0 = off , 1 = On, 2 = Restart
 - Y = Processed, 1 = Event Already finished, 0 = Event Pending
- SCHEDULE_WEEKLY:ID:<Unique ID>,RELAY:<Channel Num>,DATETIME:<Time>,ACTION:<X>, MON:<Y>,TUE:<Y>, WED:<Y>,THU:<Y>,FRI:<Y>,SAT:<Y>,SUN:<Y>
 - X = Action, 0 = off , 1 = On, 2 = Restart
 - Y = Day or week selected, 1 = selected, 0 = not selected
- SCHEDULE_END:<Channel Num>

Example

`http://10.100.20.34/cmdapi?cmd=AT_SCHEDULE`

```
{
  "Cmd": "AT_SCHEDULE",
  "OUTPUT_1": {
    "OUTPUT": "1",
    "RUNMONTHLY_COUNT": 0,
    "RUNONES_COUNT": 0,
    "RUNYEARLY_COUNT": 0,
    "RUNWEEKLY_COUNT": 0
  },
  ---
  ---
  ---
  "Mode": "Response",
  "Response": "OK",
}
```

• AT_CHNAMES

- Returns the channel names for inputs and outputs

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_CHNAMES`

- Returns:
 - CHNAME_IN:<Channel (1 to 16)>:<Name>
 - CHNAME_OUT:<Channel (0 to 15)>:<Name>

Example

`http://10.100.20.34/cmdapi?cmd=AT_CHNAMES`

```
{
  "CHNAME_OUT_9": "O - 10",
  "CHNAME_OUT_14": "O - 15",
  "CHNAME_OUT_15": "O - 16",
  "CHNAME_OUT_12": "O - 13",
  "CHNAME_OUT_13": "O - 14",
  "CHNAME_OUT_10": "O - 11",
  "CHNAME_OUT_11": "O - 12",
  "Response": "OK",
  "Cmd": "AT_CHNAMES",
  "CHNAME_OUT_8": "O - 9",
  "Mode": "Response",
  "CHNAME_OUT_4": "O - 5",
  "CHNAME_OUT_5": "O - 6",
  "CHNAME_OUT_6": "O - 7",
  "CHNAME_OUT_7": "O - 8",
  "CHNAME_OUT_0": "O - 1",
  "CHNAME_OUT_1": "O - 2",
  "CHNAME_OUT_2": "O - 3",
  "CHNAME_OUT_3": "O - 4",
  "CHNAME_IN_13": "I - 13",
  "CHNAME_IN_14": "I - 14",
  "CHNAME_IN_12": "I - 11",
  "CHNAME_IN_13": "I - 12",
  "CHNAME_IN_15": "I - 15",
  "CHNAME_IN_16": "I - 16",
  "CHNAME_IN_9": "I - 9",
  "CHNAME_IN_10": "I - 10",
  "CHNAME_IN_1": "I - 1",
  "CHNAME_IN_2": "I - 2",
  "CHNAME_IN_3": "I - 3",
  "CHNAME_IN_4": "I - 4",
  "CHNAME_IN_5": "I - 5",
  "CHNAME_IN_6": "I - 6",
  "CHNAME_IN_7": "I - 7",
  "CHNAME_IN_8": "I - 8"
}
```

• AT_GETMAP:X:E

- Returns mapping for given input

Syntax

http://<IP or URL>//cmdapi?cmd=AT_GETMAP:1:E

- Returns:
 - CELL-:<Input Num, 1 to 16>x<mapping for 16 outputs > : <Mapping >
 - Mapping Values : ON, OFF, TOGGLE, CONTINUEON, CONTINUEOFF, NONE

Example

http://10.100.20.34/cmdapi?cmd=AT_GETMAP:1:E

```
{
  "Cell-0x9": "ON",
  "Cmd": "AT_GETMAP:1:E",
  "Cell-0x3": "ON",
  "Cell-0x2": "ON",
  "Cell-0x1": "ON",
  "Cell-0x0": "ON",
  "Cell-0x7": "ON",
  "Cell-0x6": "ON",
  "Cell-0x5": "ON",
  "Cell-0x4": "ON",
  "Cell-0x8": "ON",
  "Mode": "Response",
  "Cell-0x12": "ON",
  "Cell-0x15": "ON",
  "Cell-0x14": "ON",
  "Cell-0x13": "ON",
  "Response": "OK",
  "Cell-0x11": "ON",
  "Cell-0x10": "ON"
}
```

• AT_SETMAP:X:Y:Z:E

- Set IO Mapping

Syntax

http://<IP or URL>//cmdapi?cmd=AT_SETMAP:<Input>:<Output>:<Mapping>:E

- Input : 1-16
- Output : 0-15 (Output 1 to 16)
- Mapping Values : ON, OFF, TOGGLE, CONTINUEON, CONTINUEOFF, NONE

Example

AT+SETMAP:1:5:NONE

http://10.100.20.34/cmdapi?cmd=AT_SETMAP:1:2:ON:E

```
{
  "Cmd": "AT_SETMAP:1:2:ON:E",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT_GETOUTCONFIG:X:E**

- Returns delays / Config set in IO mapping page for a given out put.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_GETOUTCONFIG:<Output>:E`

- Output : 0-15 (Output 1 to 16)
- Returns

```
{
  "OFF_DELAY": "<Off Delay>",
  "INITIAL_STATE": "<Initial state>",
  "ON_RUNTIME": "<On run time>",
  "Mode": "Response",
  "OFF_RUNTIME": "<Off run time>",
  "OUTPUT": "<Output >",
  "STARUP_ON_DELAY": "<Startup delay>",
  "Cmd": "AT_GETOUTCONFIG:1:E",
  "Response": "OK",
  "ON_DELAY": "<On Delay>"
}
```

- On Delay,Off Delay,On RunTime,Off RunTime : 10ms Blocks
- Startup On Delay : 1Sec Blocks
- Initial State : 0 = Off, 1 = ON, 2= Last State

Example

`http://10.100.20.34/cmdapi?cmd=AT_GETOUTCONFIG:1:E`

```
{
  "OFF_DELAY": "0",
  "INITIAL_STATE": "2",
  "ON_RUNTIME": "0",
  "Mode": "Response",
  "OFF_RUNTIME": "0",
  "OUTPUT": "1",
  "STARUP_ON_DELAY": "0",
  "Cmd": "AT_GETOUTCONFIG:1:E",
  "Response": "OK",
  "ON_DELAY": "0"
}
```

- **AT_SETOUTCONFIG:D:E:F:G:H:I:J:K:L:E**

- Set delays / Config set in IO mapping page for a given out put.

Syntax

`http://<IP or URL>//cmdapi?cmd=AT_SETOUTCONFIG:<Output>:<On Delay>:<Off Delay>:<On Run Time>:<Off Run Time>:<Startup On Delay>:<Initial State>:E\r\n`

- Output : 0-15 (Output 1 to 16)
- On Delay,Off Delay,On RunTime,Off RunTime : 10ms Blocks
- Startup On Delay : 1Sec Blocks
- Initial State : 0 = Off, 1 = ON, 2= Last State
- Returns:

```
{
  "Cmd": "AT_SETOUTCONFIG:D:E:F:G:H:I:J:K:L:E",
  "Mode": "Response",
  "Response": "OK"
}
```

Example

`http://10.100.20.34/cmdapi?cmd=AT_SETOUTCONFIG:1:1:2:45:30:5:2:E`

```
{
  "Cmd": "AT_SETOUTCONFIG:1:1:2:45:30:5:2:E",
  "Mode": "Response",
  "Response": "OK"
}
```

- **AT_GETSYSDATA**

- Returns System data like CPU Usage / Ram

Syntax

http://<IP or URL>//cmdapi?cmd=AT_GETSYSDATA

- Returns :

```
{
  "CPUUsage": "<CPU Usage %>",
  "UpTime": "<UpTime>",
  "UsedMem": "<Used Memory In MB>",
  "Mode": "Response",
  "MemUsage": "<Memory Usage %>",
  "TimeStamp": "<Time Stamp>",
  "Cmd": "AT_GETSYSDATA",
  "Response": "OK",
  "FreeMem": "<Free Memory In MB>",
  "TotalMem": "<Total Memory In MB>"
}
```

Example

http://10.100.20.34/cmdapi?cmd=AT_GETSYSDATA

```
{
  "CPUUsage": "31.4",
  "UpTime": " 22 hours, 20 minutes",
  "UsedMem": "189",
  "Mode": "Response",
  "MemUsage": "38.49",
  "TimeStamp": "2025-05-02 21:11",
  "Cmd": "AT_GETSYSDATA",
  "Response": "OK",
  "FreeMem": "270",
  "TotalMem": "491"
}
```

For Manual Api communication tests use chrome or other web browser:

No user and password necessary ... just make sure you have the "Allow Api control from" – Disabled or the IP of your device saved into that section.

Thank you for choosing our products