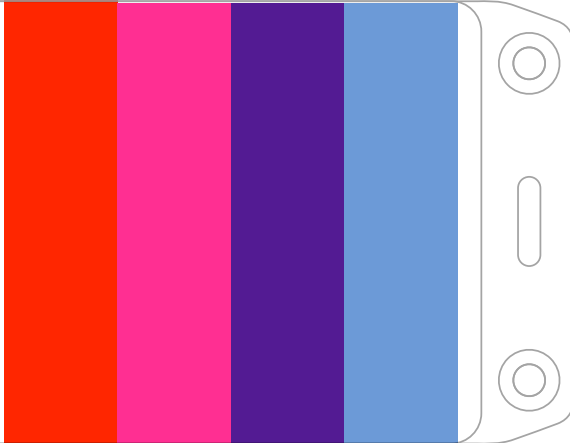




P44-XX-XX



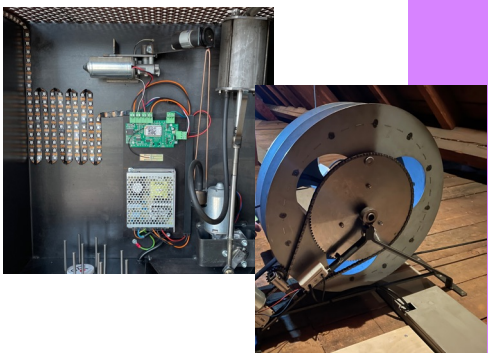
## P44-xx: The lighting and automation controller for customised solutions

Based on the proven P44-DSB/P44-LC controllers, variants are available for sophisticated lighting and automation installations of all kinds.

**Flexible:** freely programmable with IDE and debugger thanks to built-in script language p44script.

**Easy to integrate:** connect to Smart Homes via built-in matter bridge (beta) or Digital Strom.

**Stand-alone:** Independent of services and clouds, always maintainable via browser. Ideal for reliable, long-lasting installations.



### SmartLEDs

Up to 4000 GB(W) "pixels" in various designs (stripes, surfaces, curtains, etc.) based on the WS28xx LED chips can display effects, tickers and freely programmable animations.

### DC motors, stepper motors

for mechanical elements of all kinds

### DMX 512

Spotlights and effects from stage technology

### MIDI / MIDI-RTP

Integration with audio installations

### Digital I/O

Inputs and outputs for sensors, contacts, magnets, switches, etc.

### modbus

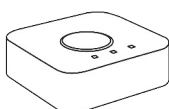
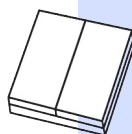
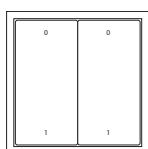
Server and client, UART + TCP

### EnOcean

Maintenance-free wireless switches are also often very useful in customised automation projects

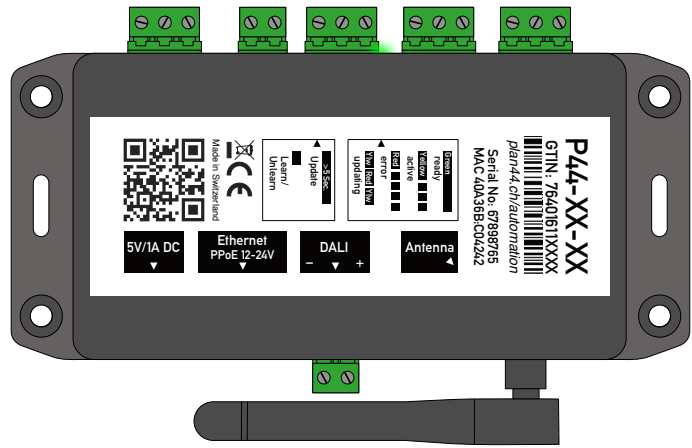
### hue

available as with the standard products



## Hardware

- Built on the **embedded P44 platform proven for many years in the P44-DSB and P44-LC**: Omgea2/MT7688 with OpenWrt Linux for economical 24/7 operation.
- **Project-specific additional modules** for further interfaces such as SmartLED control data, LED-PWM, DC motor H-bridges, stepper motors, RS485/DMX512, UART, encoder, optically isolated inputs/outputs, real-time clock, etc.
- Customised **assembly variants** of the existing modules are easily possible.
- Customer/project-specific additional modules can be developed as required.



## Software

- Uses the **standard firmware of P44-DSB/LC**, so the firmware can always be kept up to date exactly the same way, even in special versions.
- All **standard P44-DSB/LC functions are available**, i.e. zones, rooms, scenes, function groups etc.
- Project-specific programming is implemented in **p44script on the device itself** via the web interface and the built-in development environment (IDE), and is therefore completely independent of external tools and services, stable and easy to maintain over many years.
- **p44script** is a Javascript-like scripting language optimised for automation tasks, which integrators can use to efficiently implement projects independently or with support from plan44.
- The **p44lgraphics** functions are available for creating lighting effects with SmartLED chains, making it easy to generate animations, tickers, colour gradients, etc.
- With the concept of **scripted devices** (which are also available in P44-DSB and P44-LC), even unusual special installations can be modelled as standard "lights" or "shutters" and thus seamlessly integrated into a higher-level SmartHome system.
- The built-in **matter bridge (beta)** allows connection to any matter-compatible SmartHome system, e.g. to use **app or voice control**.
- Integration into Digital Strom is also available.

## Fields of application

- Customised objects in the SmartHome, e.g. special lighting installations, home theatre devices.
- Electromechanical devices, e.g. lamp lifts, room dividers.
- Exhibition objects with electromechanics and light (and possibly sound)
- Art objects with light and/or mechatronic elements

## Project workflow

- Enquiry ([e-mail](#), [forum](#)) to clarify the basic feasibility.
- Provision of the required hardware - standard device with extension module, manufactured or, if necessary, developed on a project basis.
- Implementation in p44script - ideally by the manufacturer of the customised object with the support of plan44, or if necessary by plan44 on behalf of the customer.

```
70 global midi
71
72 if (!isvalid(midi)) {
73   try {
74     midi = midibus('/dev/snd/midi000')
75   }
76   catch as err {
77     log(4, "remote midi source not available: %s", err)
78   }
79 }
80
81 if (!isvalid(midi)) {
82   // LPGA
83
84   on (midi.control(0,36)) stable 0.1 as c {
85     device("Ticker").view.interval = maprange(c.value, 127, 0, 0.020, 0.2)
86   }
87   on (midi.control(0,37)) stable 0.1 as c {
88     device("Ticker").view.y = maprange(c.value, 0, 127, 0, lrg.dy)
89   }
90   on (midi.control(0,38)) stable 0.1 as c {
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## Further information

- Device variants: [plan44.ch/automation/p44-xx-custom.php](http://plan44.ch/automation/p44-xx-custom.php)
- Project examples: [plan44.ch/custom](http://plan44.ch/custom)
- Technical documentation: [plan44.ch/p44-techdocs](http://plan44.ch/p44-techdocs)
- plan44 online forum: [forum.plan44.ch](http://forum.plan44.ch)

