

PROLED L51356P Pro Pixel Controller User Manual

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PIXEL CONTROLLER PRO L51356P



User's Manual rev. 1 – 26.05.2023

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Preface

Thank you for choosing PROLED PIXEL CONTROLLER PRO. Before installation and use, we strongly recommend you to read this manual carefully. If the device has been damaged during transport, please report this to your supplier immediately. Please don't take any action without contacting your supplier first.

The Controller should only be installed by a skilled stuff. During malfunction or damages please shut off power immediately and send the unit for testing to your supplier. The unit has no serviceable components. Internally fuses (if existing) release only at unit damage.

Limited Warranty

In case of quality problems we provide free repair or replacement within one year from the day of purchase, if this product has been used properly in accordance with the user's manual, except in following cases:

- 1. Any defects caused by wrong operation.
- 2. Any damages caused by unauthorized removal, maintenance, modifying, incorrect connection and replacement of chips.
- 3. Any damages due to transportation, vibration etc. after purchase.
- 4. Any damages caused by earthquake, fire, lightning, pollution and abnormal voltage.
- 5. Any damages caused by negligence, inappropriate storing at high temperatures and humidity or near harmful chemicals.
- 6. Product has been updated

Safety Warnings

Defiance following points can result in electric shock, fire, serious accident or death.

- 1. All installation, service and maintenance work can be done only by a skilled stuff. The instructions in the manual must be obeyed.
- 2. Shut off power supply before installation, service or maintenance and prevent unit from being switched on accidentally.
- 3. Take care of a proper wiring and pay attention to local norms.

- 4. Connectors are not delivered. Suitability of used connectors must be checked at finished product.
- 5. Suitability of mounting must be checked at finished product.

Contractual Use

The PROLED PIXEL CONTROLLER PRO is designed to control Digital Flex Strips with WS2811, WS2812, WS2813, WS2814, WS2815, WS2818B, UCS2904, P943, GS8208 and SK6822 LED-Chips. Up to 11.111 pixel can be controlled by build in programs. Additionally the LED-Pixel can be controlled by DM.

Because of six data lines, you can control very long line. By choosing of different configurations – 6 lines continuously, copied or mirrored – as well as MONO, RGB or single pixel control, you have various possibility of usage. Preinstalled programs or self-made settings allow to use the controller as an stand-alone unit. With the optional IR remote control, it is possible to start build in programs.

Specifications

Voltage supply: 5 – 24 VDC. Maximum possible current 15 A Max. power consumption: 360 VA Signal-Input: DMX 512-A / RDM Signal Output: Digital output

Power supply 5-24 VDC, with max. 6x 2,5 A

Casing: Metal case for operation in dry rooms (IP 30)

Ambient temperature: -10 C° ... 45 C°

Dimensions: 127 mm x 86 mm x 25 mm (L x W x H)

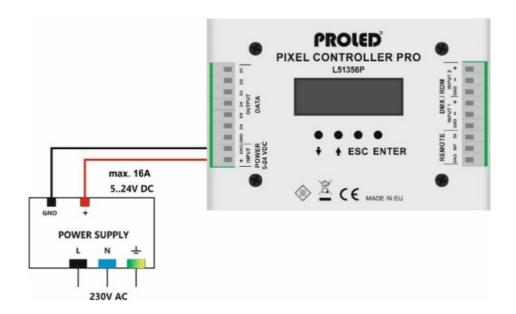
Weight: ca. 0.30 kg

Specifications are subject to change.

Inputs and Outputs

Power supply

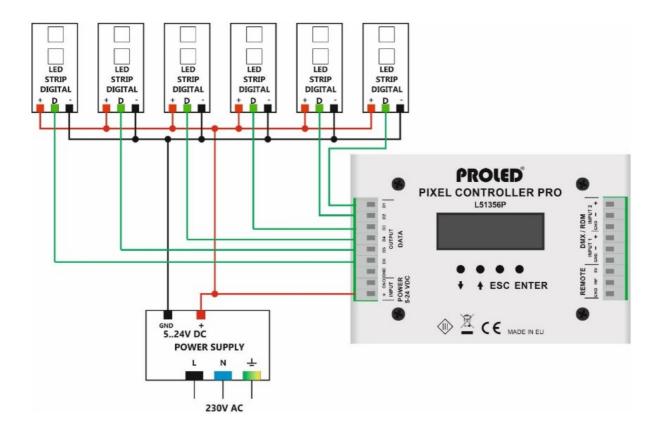
The power supply is 5-24 VDC with max. 15 A.



Connecting of digital Pixel Strips:

Please be advised, that only WS2811, WS2812, WS2813, WS2814, WS2815, WS2818B, UCS2904, P943, GS8208 and SK6822 LED-Chips can be controlled. Max output load is 6x 2,5A. If a higher load is needed, than

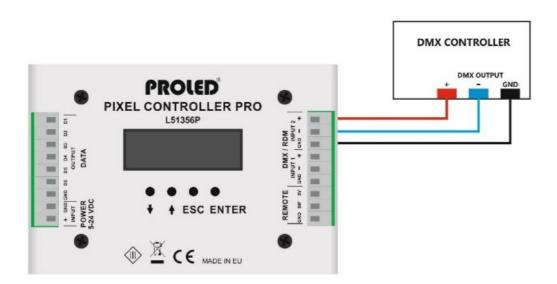
the strips must be connected to a seperate power supply. If a strip will be powered with different power supplies, the strips must be separated. Only the data line can be connected between the strips. The GND lines of the power supplies must be connected together.



DMX:

Controller can be controlled by a standard DMX-512 signal. As soon as the setup 1024Ch is chosen, it is possible to control up to 341 pixels separately (2x 512 Channels / 3 colours = 341 pixel). Connect the DMXcontroller with the DMX-input of Pixel Controller.

After successful connection you can control Pixel Controller by DMX-signal.



SWITCHING ON

As soon as the controller is connected to power supply, it can be used after a short booting.

DISPLAY









Pixel Controller PRO starts, with last chosen mode.

MENU



By pressing UP/DOWN-button, you will see different menus on right side of the display.

- SETUP
- DMX
- MANUAL
- SINGLE
- TIMEPRG

SETUP

In SETUP menu you can change different settings as well as change the LED type.

DMX

In DMX mode the controller receives DMX-signals and controls the LED, according to the chosen setting.

MANUAL

In MANUAL-mode you can create your own effect by changing 14 different parameters.

SINGLE

In SINGLE-mode you can chose one preprogrammed effect.

TIMERPRG

In TIMERPRG-mode you can start different programs on an desired time. Due to this you have the possibility to create different effects for the whole day.

SETUP - MENU

In SETUP-menu you have possibility to enter following settings.

LED PIXEL

LED TYPE

LED COUNT RESOLUTION DIRECTION MIRRORING

DMX PERSONALITY

WHITE - 1ch

RGB - 3ch

RGB 2 - 6ch

PIXEL - 1024ch

EFFECT1 - 1ch

EFFECTRGB - 14 ch

REMOTE

IR / CONTACT MODE

RESTART WAIT TIME

DATE TIME

SET DATE-TIME

TIME PROGRAM

CUSTOMIZE

LANGUAGE

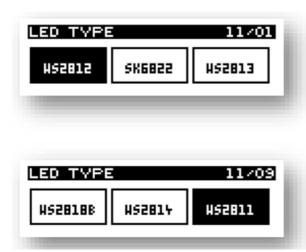
DISPLAY BACKLIGHT

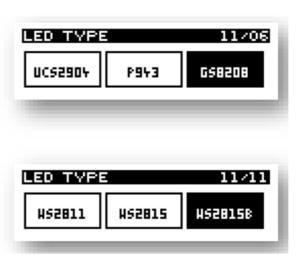
DISPLAY CONTRAST

FACTORY DEFAULT

INFORMATION

SETUP - LED PIXEL - LED TYPE





With the UP/DOWN-buttons you can chose the desired LED-type. With ENTER-button the highlighted value will be saved and the menu will be left.

With ESC-button you can leave the menu without saving any changes.

SETUP - LED PIXEL - LED COUNT



The controller has two digital outputs to control Digital Strips. In this menu you can set the amount of LEDs you have connected or you want to control at each digital output.

With the UP/DOWN-buttons you choose the output. After pressing ENTER-button you have the possibility to change the amount of LEDs. You can do this by pressing or holding the UP/DOWN-button. With ESC-button you will leave the menu. The changed values will be saved.

SETUP - LED PIXEL - RESOLUTION



In RESOLUTION-menu you can chose how many LEDs are one pixel. You can enter values between 1 and 100.

SETUP - LED PIXEL - DIRECTION



You can choose in DIRECTION menu, if the effect should go away or to the Pixel Controller. Direction can be set for each output separately

SETUP - LED PIXEL - MIRRORING



In MIRRORING menu you can set if outputs could be mirrored to other outputs. Here output 2 can only mirror output 1. Output 3 can mirror output 1 and output 2. Output 4 can only mirror output 1, or output 2 or output 3 etc.

SETUP – DMX PERSONALITY





In DMX PERSONALITY-menu you can chose different setting, which defines how the strip act depending on DMX-signal.

WHITE -1ch:

One DMX-channel control all pixel in same way. This DMX-channel works as brightness value from 0 to 255. All pixel light up as RGB-white.

RGB - 3ch:

Three DMX-channels control all pixel in same way. With 3 channels you can mix all colours. All pixel do same colour.

RGB2 - 6ch:

Channel 1, 2 and 3 define the colour of the first pixel. Channel 4, 5 and 6 define the colour of the last pixel. All pixel in between are changed automatically, so the result is a smooth colour change between first and last pixel. **PIXEL -1024ch:** Every pixel can be controlled separately. This mode is especially for example for projects with lighting wall, where every single LED must be controlled.

EFFECT1 – 1ch: Simple one channel effect control. Preinstalled effects can be started by channel value. **EFFECTRGB – 14ch**: Extended mode for effects. With 14 channels you can control 14 different setups.

- 1. GROUND COLOUR RED
- 2. GROUND COLOUR GREEN
- 3. GROUND COLOUR BLUE
- 4. EFFECT COLOUR RED
- 5. EFFECT COLOUR GREEN
- 6. EFFECT COLOUR BLUE
- 7. PROGRAM
- 8. SPEED
- 9. LENGTH
- 10. SOFT
- 11. WAIT
- 12. EFFECT COUNT
- 13. EFFECT START
- 14. MASTER

GROUND COLOUR RED, GREEN, BLUE

Colour of the pixel, if no effect is on that position.

EFFECT COLOUR RED, GREEN, BLUE

Colour of the pixel, when the effect is running. If all values are 0, than random colours will be used.

PROGRAM

0...9: STOP

10...45 P1: from first to last pixel 46...80 P2: from last to first pixel

81...115: P3: from middle to first and last pixel (both directions) 116...150: P4: random start position, decreasing to last pixel

151...185: P5: random start position, decreasing to first pixel

186...220: P6: random start position, decreasing to both directions

221...255: P7: random start position, random direction

SPEED

Velocity: 0 = slow, 255 = fast

LENGTH

Amount of parallel visible pixels.

SOFT

Soft change between effect and ground colour.

0 = immidiately change between effect and ground colour 1-254 = the higher the value, the slower is the change from ground colour to effect colour 255 = softly change between effect and ground colour.

WAIT

When the colour has reached maximum, than the await time begins. Here you can set the wait time.

EFFEKT COUNT

Amount of visible effects at one time

0...9: OFF

10...19: 1 EFFECT 20...29: 2 EFFECTS: ... EFFECTS

150...255: 15 EFFECTS

EFFECT START

AUTO: effect starts automatically

ENTER / IR: Effect starts when ENTER is pressed or contact will be closed

MASTER

Master brightness for all pixel

SETUP - REMOTE - IR / CONTACT MODE



IR input can be used for a IR receiver or as an contact input. When the CONTACT mode is enabled, than in MANUAL mode, if EFF START is signed as ENTER / IR, the effect can be started by a contact.

SETUP - REMOTE - RESTART WAIT TIME



Every running effect has a up time, a wait time and a down time. The wait time can be started in different art, when this function is enabled.

SETUP - DATE-TIME - SET DATE-TIME



In DATE-TIME-menu you can change the current date and time. This setting is needed for TIMERPRGmode. With the UP/DOWN-buttons you can chose day, month, year, hour, minute or second. The chosen parameter will be displayed inverted. After pressing ENTER-button you can adjust the value With ESC-button you can leave the menu. The current values will be saved.

SETUP – DATE-TIME – TIME PROGRAM



In TIME PROGRAM-menu you can start preinstalled programs automatically at desired time.

As long as no steps are existing, you can only chose: ADD NEW STEP.

When steps are already existing, you can see the starting time and program number of each step.

In the last line you will see ADD NEW STEP, which allows to enter a new step.

With UP/DOWN-buttons you can select each line. If you select ADD NEW STEP and confirm with ENTERbutton, you can set the start time (hours and minutes) as well as the desired program. This you can do with UP/DOWN-buttons. You can also choose STOP. This means, that from that time on no program is running and all pixels become dark. With ESC-button you get back to previsious menu. The values will be saved and resorted according to starting time.

If you want to edit an existing step, you have to mark it and press ENTER-button. At the end of the line you will see EDIT and DEL. If you press ENTER-button and EDIT is inverted, than you can change the values.

If you invert DEL with the UP/DOWM-buttons and press ENTER-button, than this step will be deletedt With ESC-button you can leave the menu. The values will be saved.

SETUP - CUSTOMIZE - LANGUAGE



Possibility to change the language. The inverted language is the current language.



It is possible to turn off the display after selected time.

SETUP - CUSTOMIZE - CONTRAST



It is possible to adjust the contrast of the display. Higher values means that the display will be darker. Minimum value is 50%.

SETUP - CUSTOMIZE - FACTORY DEFAULT



In this menu you can reset the controller to the factory default values. ATTENTION! All previous entered settings will be lost. Controller will be set to factory values.

SETUP - INFORMATION



General Informations:

- Software-Version
- Software-Date
- Hardware-Version

DMX



As soon as in main menu DMX has been chosen, the Pixel Controller can be controlled by DMX-signal. As long as no DMX-signal is existing, the start address will blink. The current values for connected LEDs, output order etc. are displayed on right side.

MANUAL



In MANUAL-mode it is possible to use connected Digital Strip without any further controller. All 14 possible settings (look page 22/23) can be changed using UP/DOWN/ESC/ENTER-buttons.

SINGLE



In SINGLE-mode it is possible to use the Pixel Controller PRO as a Stand-Alone-Unit with the connected Digital Strip. You can choose one of the 25 preinstalled programs. Pixel Controller PRO save the last used program and after a power failure starts automatically with this program.



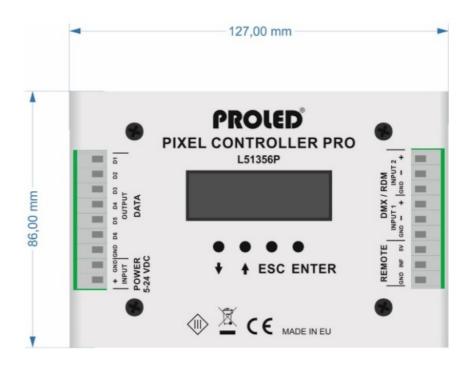
As soon as you choose this menu, the programs will be started according to the setting in menu SETUP – DATE TIME – TIME PROGRAM.

The display shows the current program and starting time of next program.

REMOTE CONTROL

As soon as you connect a PROLED IR remote control to the PIXEL CONTROLLER PRO, you will have the possibility in SINGLE-mode to choose program 1 to 5 directly by the remote control.

DIMENSIONS



05.23 Technical amendments reserved
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Documents / Resources



PROLED L51356P Pro Pixel Controller [pdf] User Manual L51356P Pro Pixel Controller, Pixel Controller, Controller

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