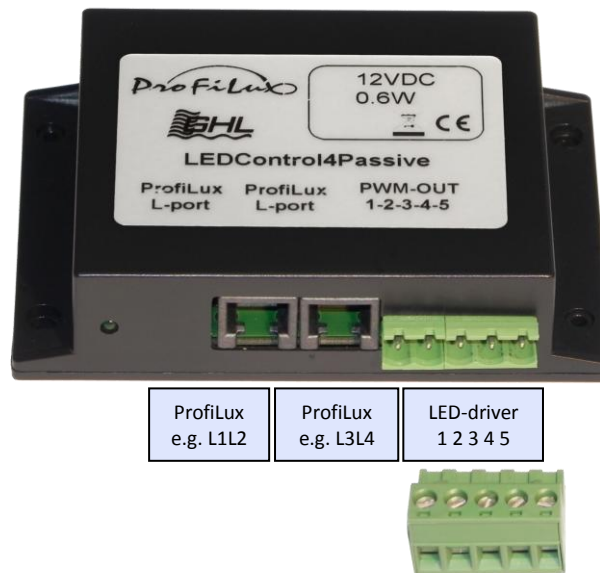


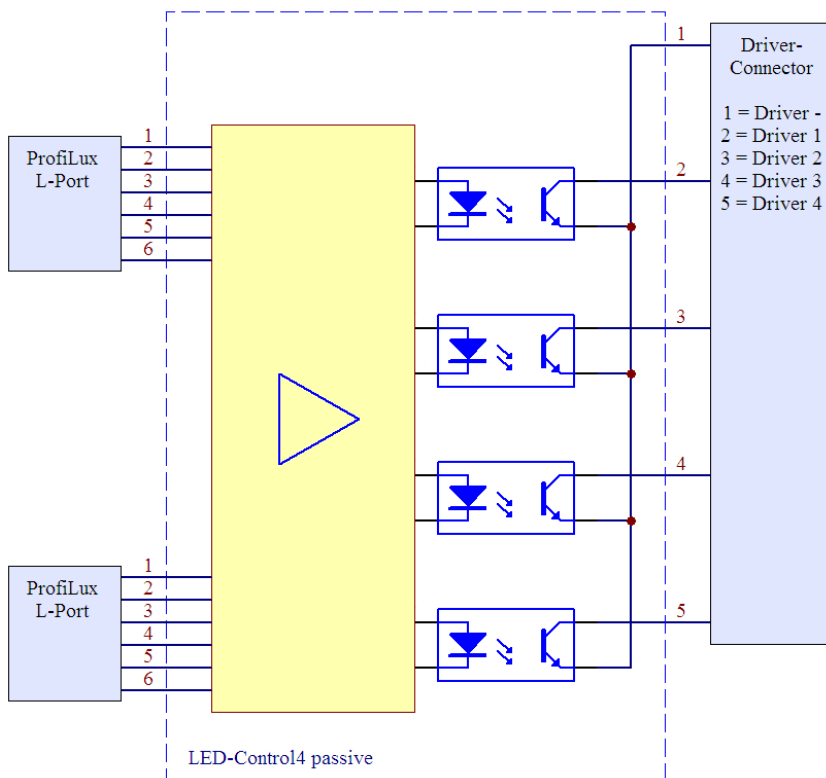
Electronic controller for LED-lamps *LEDControl4 passive*



Characteristics

LEDControl4 passive converts 4 analog input voltages into 4 pulse width modulated (PWM) signals (Open-Collector), external LED drivers can be controlled by these PWM signals. In order to protect a connected *ProfiLux* against possible interferences the input circuits and the output circuits are galvanic insulated through optocouplers. In the case of 0% PWM, the transistors are insulating (output is highly resistive), in case of 100% PWM, the output is permanently pulled to minus potential, this behavior can be inverted.

LEDControl4 passive can produce „flashes“ during a thunderstorm simulation in *ProfiLux*. During a flash, the PWM-signal is temporarily set to 50%, 75% or 100%, independently from the corresponding analog input. Flashes can be output at channel 1 and channel 2, the flashing behavior can be set, see below.



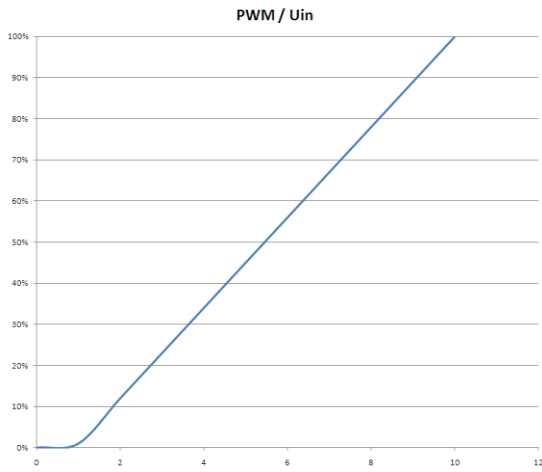
The block diagram on the left side illustrates the functionality of *LEDControl4 passive*.

Technical data

Parameter	Value
Max. potential difference at the outputs	24V
Max. current per channel	12mA
Number of channels	4
Input voltage range analog inputs	0V ... 10V
PWM-switching frequency	200Hz

Output: voltage / current

I_{out}	U_{out} [typ.]
4mA	0,31V
6mA	0,42V
8mA	0,53V
10mA	0,65V
12mA	0,98V



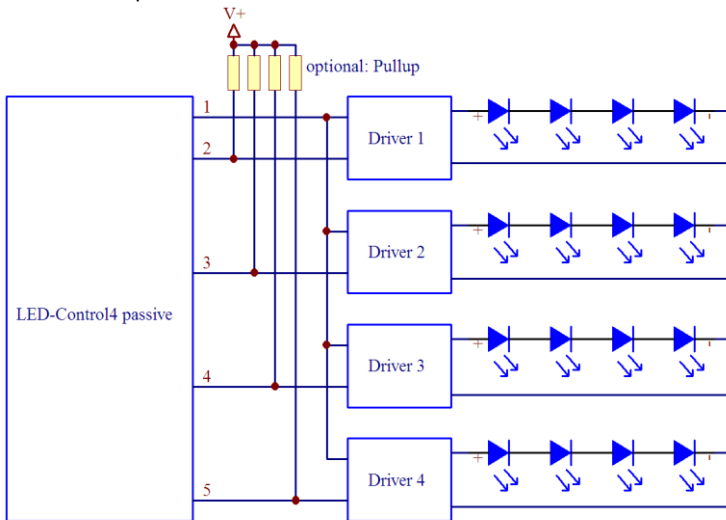
Correlation input voltage and PWM-output

Preconditions

- 1 or 2 free 1-10 V-interfaces at *ProfiLux*
- LED-lamps which can be controlled via PWM (Open Collector)

Connection and operation

The delivered control lines (Western cables) are at one end plugged into the corresponding sockets of *LEDControl4*, at the other end they are plugged into free sockets with 1-10V-interfaces (e.g. *L1L2* and *L3L4*) of *ProfiLux*. The control inputs of the LED-drivers are connected to the delivered screw-type terminal.



Configuration of screw-type terminal:

1	LED-driver minus all channels
2	LED-driver channel 1
3	LED-driver channel 2
4	LED-driver channel 3
5	LED-driver channel 4

The example on the left shows the connection of 4 LED-drivers, perhaps the use of pullup resistors against a positive voltage is necessary.

Settings

Please don't forget to program the corresponding 1-10V-interfaces and illumination channels of *ProfiLux* accordingly. In *LEDControl4* you can set the flashing behavior. The settings are made in *ProfiLuxControl* and are sent via *ProfiLux* to *LEDControl4*. The following settings are stored in *LEDControl4* and are kept also without operating voltage.

- reaction to Flash 1, Flash 2 or Flashes 1 & 2
- PWM for Flash at 50%, 75% or 100%
- output flashes at channel 1 or channels 1 & 2
- furthermore the PWM signal can be inverted

Further information you will find in your user manual of *ProfiLux*.

Important hints

- Electrical installations must always be made by qualified person.
- Please pay attention that the used LED-drivers are compatible, currents, voltages and polarity have to be considered, maybe pullup resistors have to be used.
- Protect *LEDControl4 passive* from splash water and too high humidity.

The non-observance of this manual or the improper use will lead to a loss of warranty!

Disclaimer

The manufacturer doesn't take over any liability for (consequential) damages which occur through the use of this device.

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