

LEDLink-3000

(LDDRV 4.x)

specification

For POWER LED driving - from PC (USB) and Stand Alone

Output

Output				
Parameter	Min	Nom.	Max	Remark
No of outputs		1		
Continuous LED current	0 mA		3 A	
Pulsed LED current	0 mA		5 A	
LED Voltage	< 0.1mV		> $V^{LDIN} - 4 V$	
Resolution	300			
Accuracy	3% or 2steps			calibrated
Accuracy	10.00%			uncalibrated
Temperature coeff.			2.00%	
Efficiency (η)		0.7		70.00%

Power Supply Requirements

The power of the controller part and the LED may be separated. By default the **PWR INPUT** supplies both the controller and the LED.

Power Supply				
Parameter	Min	Nom	Max	Remark
Input Voltage - controller	12 V		35 V	DC
Input Current - controller			200 mA	
Input Voltage - LED	12 V		35 V	DC
Input Current - LED				(1)
Efficiency (η)		0.7		70.00%

(1) Depends on the LED voltage (V^{LED}), LED current (I^{LED}), input voltage (V^{IN}) and efficiency (η):
$$I^{IN} = (V^{LED} * I^{LED}) / (V^{IN} * \eta)$$

Modes of operation

- Continuous current
- Flash (Adjustable params: pulse width, delay, number of pulses, pause between pulses)
- HW triggered pulse (Falling/Rising Edge)
- Light Follower (switch on by light / by dark)
- Dimmer - light intensity controlled by PWM / wiper

Pulse Mode parameters

Pulse Mode parameters		
Delay from start signal	<i>0 – 6sec</i>	In 100 μ sec increments
Pulse width	<i>100 μsec – 6 sec</i>	In 100 μ sec increments
Pause between pulses	<i>100 μsec – 6 sec</i>	In 100 μ sec increments
Pulse repeat count	<i>1 – 60000</i>	Endless repeat available
Timing accuracy	<i>10^{-3}</i>	or +/- 200 μ sec

HW trigger input

HW trigger input	
Input type:	<i>5V CMOS level compatible + on-board opto-isolated interfac</i>
	<i>Weak pull up for open collector $R^{PULLUP} = 10k\Omega$</i>
Start condition	<i>Rising / Falling edge</i>
opto isolated input	
Active current	<i>< 10 mA</i>
Active voltage	<i>> 4.5V , max. 30V</i>

Dimmer/Wiper input

Dimmer/Wiper input		
Input type – PWM	<i>5V CMOS level compatible</i>	
	<i>Weak pull up for open collector $R^{PULLUP} = 10k\Omega$</i>	
Wiper	<i>10kΩ - 50kΩ</i>	

Operating temperature range

0 – 35 °C

LED driving current ranges, LED current limits

LED driving current ranges			
Range [mA]	Continuous current limit [mA]		Pulsed limit
	Normal housing	External heatsink	
1000	<i>No limit</i>	<i>No limit</i>	No current limit The pulse width and duty cycle may be limited
2000	<i>No limit</i>	<i>No limit</i>	
3000	<i>n.a⁽¹⁾⁽²⁾</i>	<i>No limit</i>	
5000	<i>n.a⁽¹⁾</i>	<i>n.a⁽¹⁾</i>	
⁽¹⁾ Not allowed combination			
⁽²⁾ May overridden, <i>possible thermal damage</i>			

Interfaces

PC Interface

USB (USB CDC: the device seen as virtual COM port)

- The device may programmed by command from Hyperterminal.
- LabVIEW™ module available.
- Java based interface is under development for Windows and Linux.

Front panel functions

3 push buttons + 2 digits 7 segments display

- on / off / store
- All settings are available from front panel – no PC required