

Tiny 0,1-0,5 A / 33 V low-cost variable current LED driver

Driver

- self made LED fixtures
- easy to use
- low cost
- dimming options
- battery supply
- CV supply

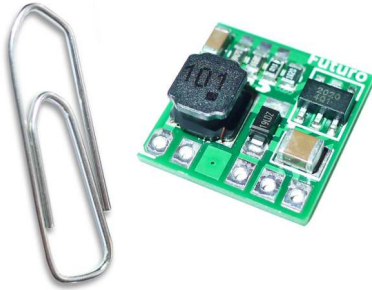


**Futuro
Lighting**
design

2014

LED Driver 376V

Build your own LED fixture charger and others

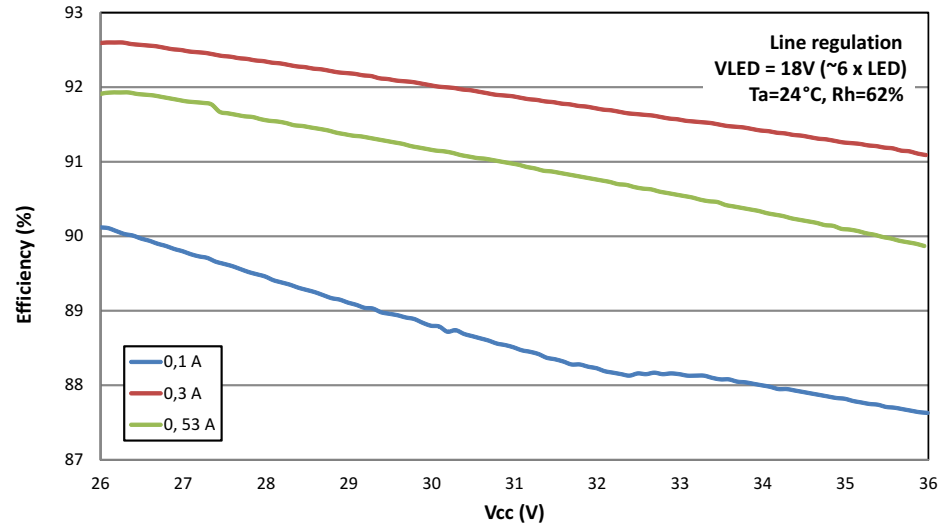
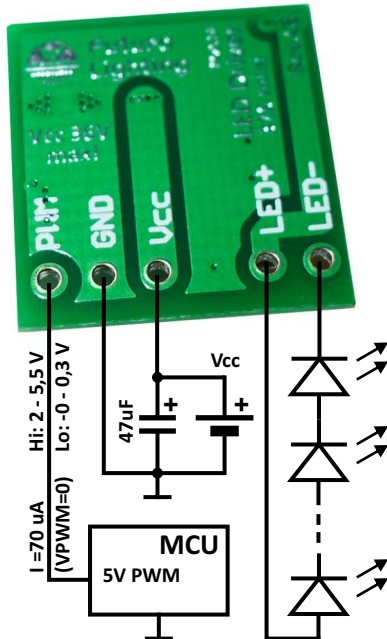


Specification:
Topology: Buck
Vcc = 8-32 V DC
I LED = Adjustable
see next page for settings

Regulation / dimming:
- hysteretic controll
- typical 5% output accuracy
- high speed PWM dimming

Switching freq: 1 MHz max
Rsense ratio: 0,13 Ohm / 1 A

Dimensions: 16 x 16 x 5,5 mm
Thermal shutdown protection
Over current protection



Note: if PWM is not connected max ILED generated
Standby mode, PWM < 0,3 V (Icc 70uA typical)
Options: encapsulation, reverse protection

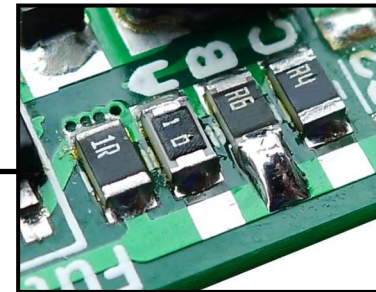
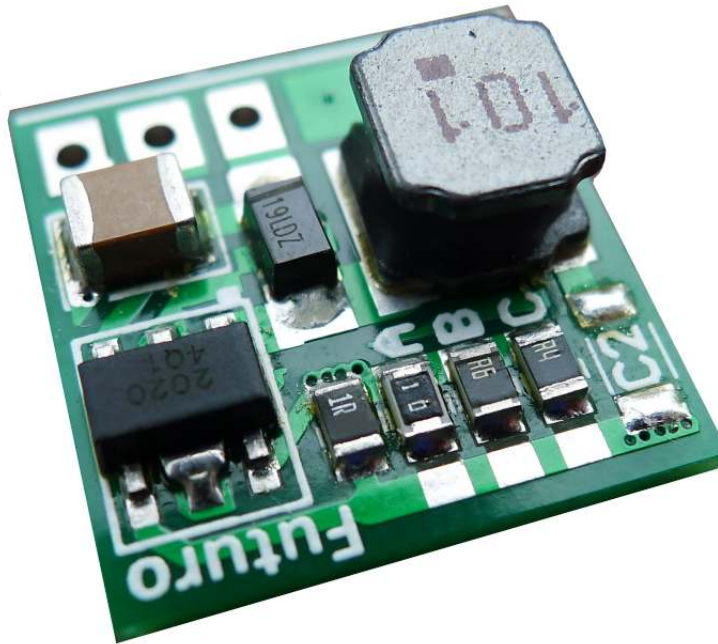
LED Driver 376V

LED current setting

LED current selection from 0,1 A up to 0.53 A

I _{LED}	A	B	C
0,1 A	-	-	-
0,23 A	X	-	-
0,3 A	-	X	-
0,39 A	-	-	X
0,45 A	X	X	-
0,53 A	X	-	X
0,59 A	do not use !		
0,73 A	do not use !		

X - linked by soldering iron



Output current ripple reduction: adding capacitor across LED string (1 uF on module).
Note: capacitor will not affect operating frequency and efficiency, but it will increase startup delay and reduce maximum dimming PWM frequency. Using ceramic capacitor may result in audio noise during PWM dimming depending on PWM frequency.

3-CH Digital dimmer for LED Driver 376

Ready made solution for your lighting needs

Specification:

Supply voltage 7-36 V DC

Power consumption: 1,2 W max

Model: Custom for LED Driver 376

Output: PWM 0 - 100%

Output current: 10 mA / channel max

Number of dimm steps: 250

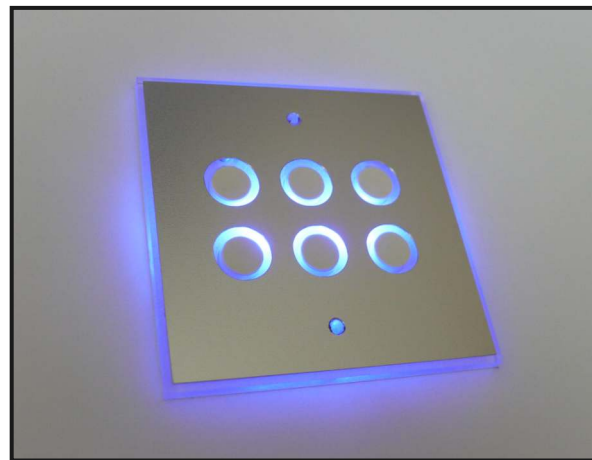
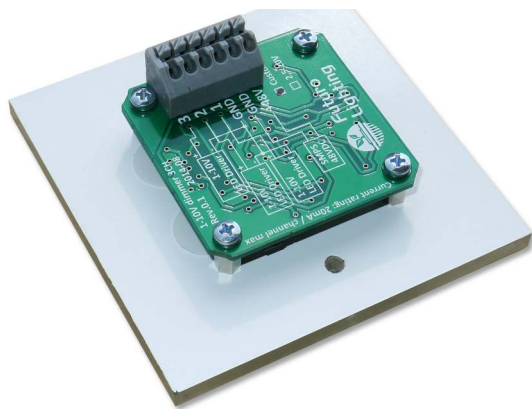
Illumination: Front - Side Blue LED

End of range indication: blink (Blue)

Power-up fade-in duration: 30 sec

Setting memory type: EEPROM

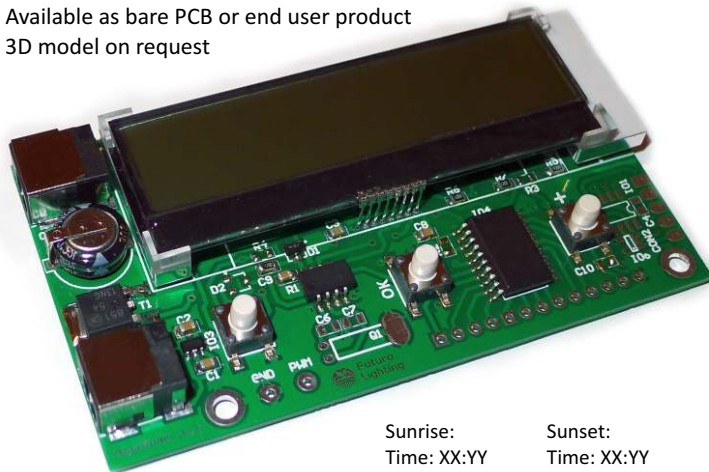
Dimensions: 85 x 85 x 30 mm



AquaTimer & LED Driver 376

Artificial sun for Aquarium life
Application example

Available as bare PCB or end user product
3D model on request



Specification:

Supply Voltage: 6-25 VDC

Supply current: <15 mA

Power consumption: 0,65 W max

Clock source: RTC 24h

Settings for sunset and sunrise:

Start time XX:YY

Intensity 0-100%

Dimm time: 5-99 minutes

PWM frequency: 2000 Hz

Resolution: 1000 steps

Output: 5V / 10mA

Output: CV, 4A max

Display: 2x16 lines

Actual time, status,

intensity, Menu

Illuminated (white)

Others:

- Reverse protection

- >3 days clock backup

Dimensions: 87x50x10 mm

Sunrise:

Time: XX:YY

P = 10-100%

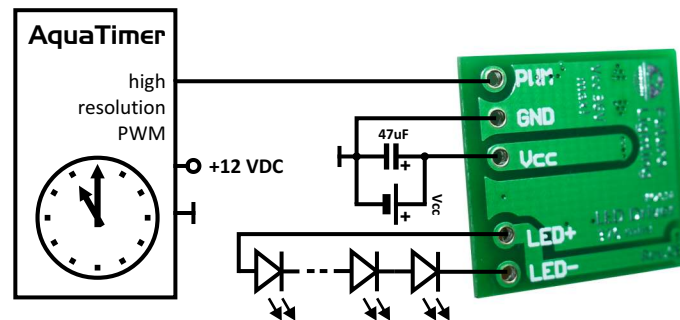
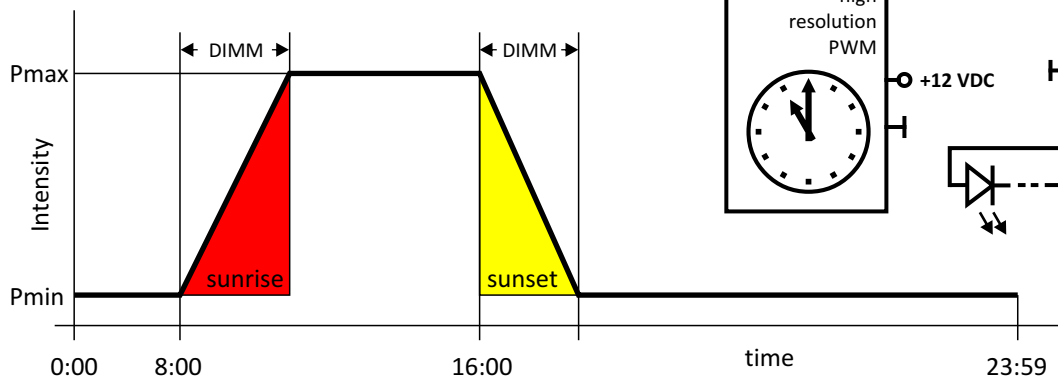
Dimm = 5-99

Sunset:

Time: XX:YY

P = 0-90%

Dimm = 5-99



TouchDIMM & LED Driver 376

Just single push to adjust
Application example



Available as bare PCB
3D model on request

Control:
ON / OFF - short touch (<2sec)

Specification:

Supply Voltage: 6-25 VDC
Supply current: <5 mA
Output: PWM / CV 4A max

PWM frequency: 2000 Hz
Resolution: 1000 steps
Output: 5V / 10mA

Dimm steps: 100
Dimming characteristic: Log

Dimensions:
50x13x10 mm
50x13x3.5 mm (wo DC con)

Others:

- Reverse protection
- implemented soft fade in and fade out
- illumination of touch button
- built in N-MOS for CV LED strips



Intensity increase

Touch and hold till reaching required intensity (initial status OFF)



Intensity decrease

Touch and hold till reaching required intensity (initial status ON)



Indicator status

Inactive when off or during fade in and out

