



LED module for
windowsill light

DecoMAX

R2938

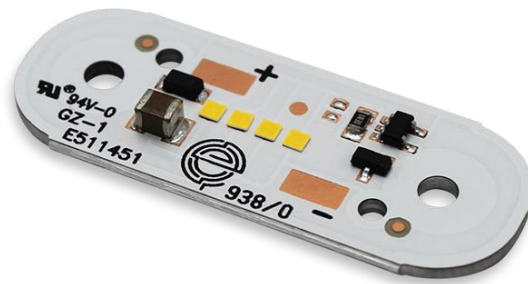
LED module for windowsill light



5 YEARS WARRANTY

CC CONSTANT CURRENT

CV CONSTANT VOLTAGE



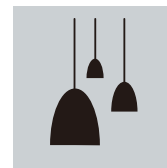
FEATURES

- PCB dimension: 44x17mm
- Up to 490 lm
- Up to 155 lm/W
- CRI 70, 80, 90
- Max Electrical Insulation <150V
- Lifetime $I_s = 85^\circ\text{C} > 60000\text{h}$ if $I = 160\text{mA}$
- Suitable for windowsill light applications
- **RGBW version available (code: R2880)**

APPLICATIONS



Architectural



Decorative

DecoMAX

R2938

LED module for windowsill light



5 YEARS
WARRANTY

CC CONSTANT
CURRENT

CV CONSTANT
VOLTAGE

CC VERSION

Code	CCT	CRI	Current [mA]	Voltage [V]	Power [W]	Total Lumen [lm]	Lm/W	Energy Efficiency
R2938C*2780*0C	2700K	80	150	11,0	1,70	245	144	D
			300	11,50	3,50	457	130	D
R2938C*4080*0C	4000K		150	11,0	1,70	265	155	D
			300	11,50	3,50	490	140	D
R2938C*5080*0C	5000K		300	11,50	3,50	265	155	D
			300	11,50	3,50	490	140	D

Tolerances +/- 10%

Ask for more information about available LED and other options.

CV VERSION

Code	CCT	CRI	Current [mA]	Voltage* [V]	Power [W]	Total Lumen [lm]	Lm/W	Energy Efficiency
R2938C*2780*01	2700K	80	150	12	1,80	245	136	D
			300	12	3,60	457	127	D
R2938C*4080*01	4000K		150	12	1,80	265	147	D
			300	12	3,60	490	136	D
R2938C*5080*01	5000K		300	12	1,80	265	147	D
			300	12	3,60	490	136	D

Tolerances +/- 10%
Vdc -0,5-2V

Ask for more information about available LED and other options.

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WARRANTY

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VOLTAGE

LED and board features	
LED number	4
LED type	CSP
Circuit	SI x 4
Material	Aluminium
Solder	White
Power	
CC Version Abs. Max. input current CC	400mA
CV Version Abs. input voltage CV	11,5V : 14,0Vcc
Mechanical Data	
H x L	43,8 x 16,8 mm
Thickness	3mm
Conditions	
Max. temp. (Ta)	85°C
Max. temp. (Tc)	80°C
Operating temp. Range	-40°C : 55°C

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R2938

LED module for windowsill light

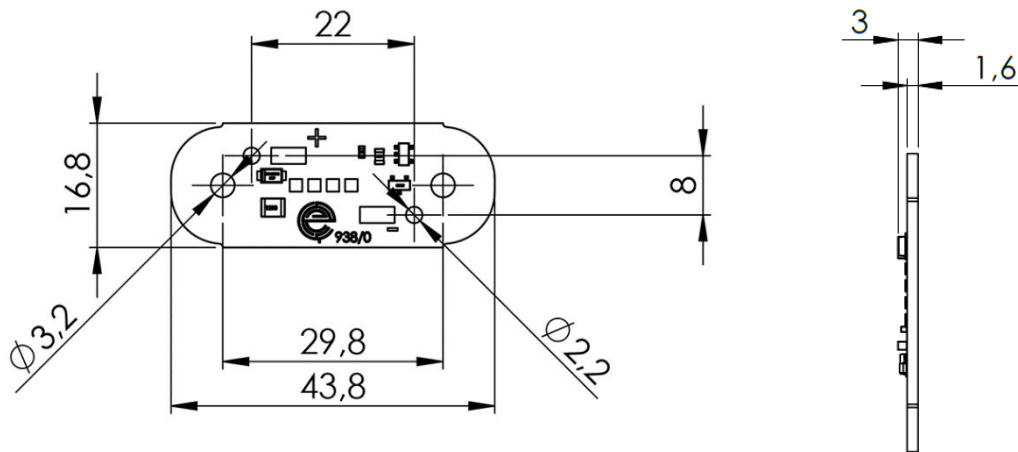


5 YEARS WARRANTY

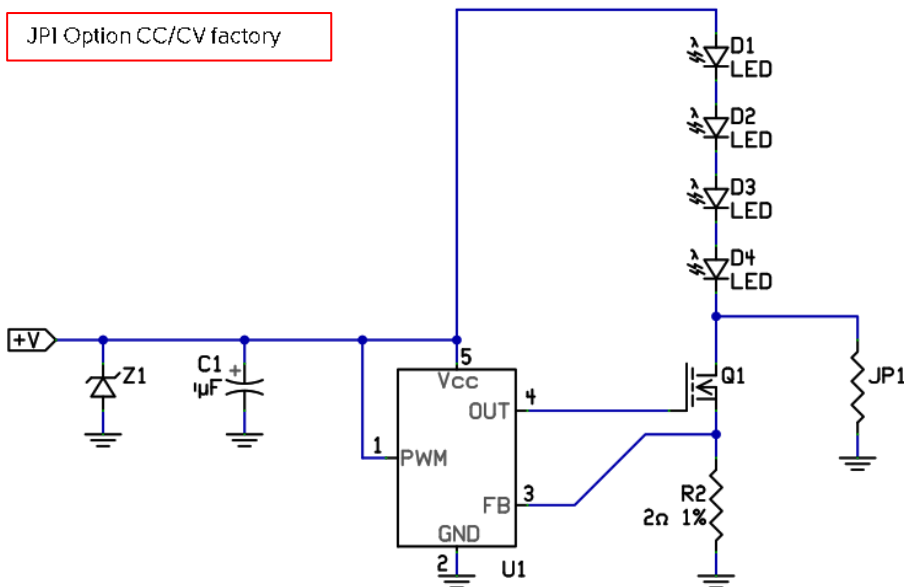
CC CONSTANT CURRENT

CV CONSTANT VOLTAGE

MECHANICAL DRAWING



ELECTRICAL CIRCUIT



DecoMAX

R2938

Accessories: LedLink Optics lens



5 YEARS WARRANTY

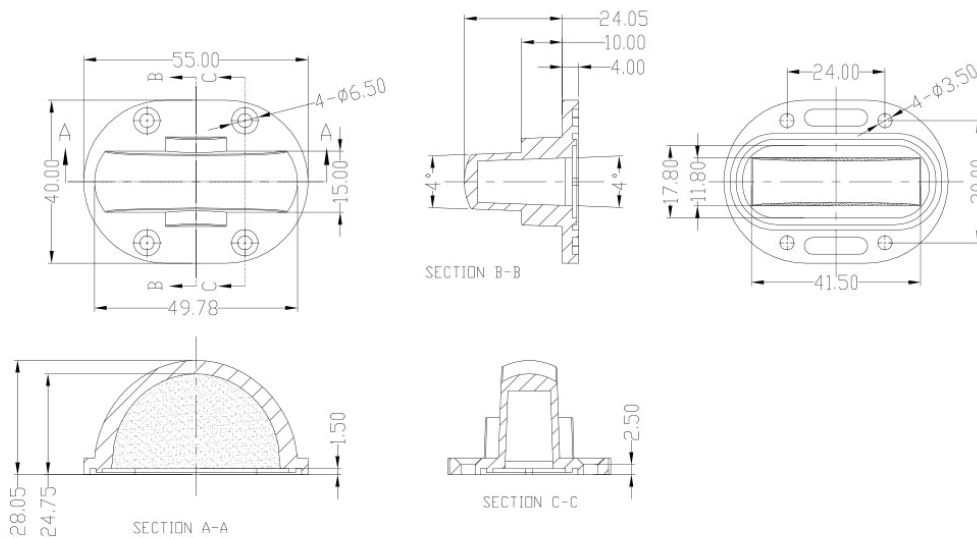
CC CONSTANT CURRENT

CV CONSTANT VOLTAGE



Specifications: CZP series Waterproof Gasket	
View Angle (Fwhm)	3°x15°/5°x100°
Material	PC LUX2180T
Type	Single
Efficiency	>90%
Operating Temperature	-40°C~110°C

DRAWING



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R2938

Accessories: LedLink Optics lens

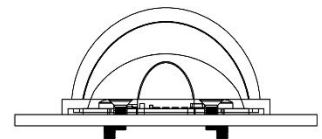
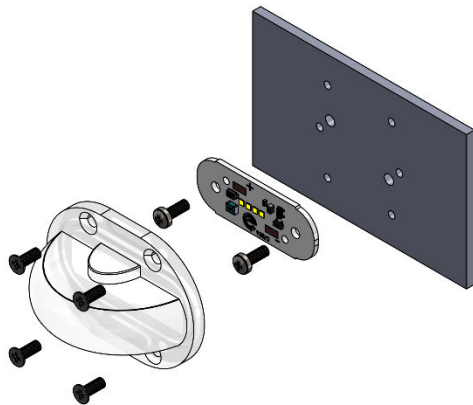
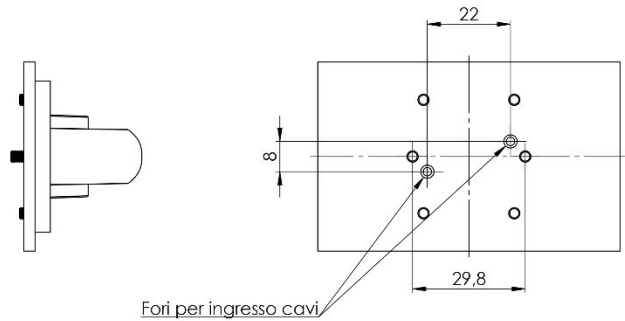
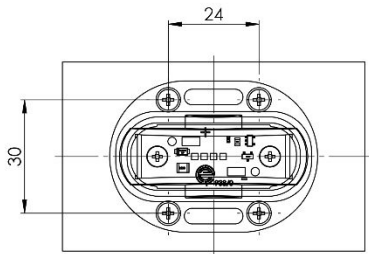


5 YEARS WARRANTY

CC CONSTANT CURRENT

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R2938 + CZP LENS



→ You can download the complete Fixing Holes Drawing [CLICKING HERE](#).

ASSEMBLY AND SAFETY INFORMATION

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnected from the mains).

The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- o Consider safety regulations acc. EN 60598 in the luminaire design, especially when the operating LED driver is not galvanically isolated.
 - In mode of operation regard to sufficient isolation.
 - Live parts must not be touched in operation mode. Danger in life!
- o ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- o Adequate anti-static electricity measures, including the use of conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- o LED assembly modules must not be subjected to any undue mechanical stress, e.g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - avoid any pressure on the light emitting surface
- o Safe operation only possible by the use of external constant current sources (max. see table 'Electrical Characteristics').
- o Operation only with power supply units that feature the following protection:
 - Short circuit protection
 - Overload protection
 - Overheating protection
- o The module can be fixed with M3 screws. Fixation only with flat or cylinder head screws (M3) (no countersunk screws) Max. torque: 1.2 Nm (M3)
- o Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- o For interconnection the LED modules is equipped with push-in terminals (WAGO 2050).
- o Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceeds the permitted touchable value.
- o The following points must be observed when connecting LED modules in parallel:
 - All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
 - Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.
- o To ensure problem-free operation, the specified maximum temperature at the top point (see 'Operating Life') must be observed (and measured in accordance with EN 60598 1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- o In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion/damage resulting from humidity or contact with condensate will not be recognized as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- o Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- o For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceeds the permitted touchable value.
- o Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure.
- o The photobiological safety of the LED modules must be classified into risk groups in accordance with IEC / TR 62778; risk group 1 (except 43, 6500 K, > 500 mA: risk group 2)

APPLIED STANDARDS

IEC / EN 62031
LED modules for general lighting – Safety specifications

IEC / TR 62778
Application of IEC 62777 for the assessment of blue light hazard to light sources and luminaires