

### LED STATUS

Led Status	Internal controller with 4 driving modes	
1	100%	Continuous use
2	200%	Semi-continuous use
3	400%	Strobe use
4	10-100%	Analog Reg

Internal Controller with **4 driving modes**



M12 5P Male Connector	
Pin 1	+24V
Pin 2	Start NPN < 1 to 0V
Pin 3	GND
Pin 4	Start PNP > 3 to 24V
Pin 5	1-10V Analog Reg.

Develop your custom solution

18 Standard Colours

Base IP54 Protection Degree

Variant IP65 Protection Degree

24 Vdc

Optional Polarizing Filter

CE RoHS

UK CA

### Illuminator Features :

- Project achieved by internal resources and Genesi skills;
- Fast controller which allows to have the following modes: continuous use, semi-continuous use, strobe (PNP, NPN), analog regulation.
- Microcontroller to monitor the pulse duration and the maximum temperature;
- Model with 10°, 30°, 60° Lenses or transparent, satin and opaline covers;
- Powerful and Fast strobe mode with energy buffering and strobe duration control, min. pulse from 3 μs;

COLOUR	WHITE		UV-A				VISIBLE				NIR			SWIR				
	White 6000K -6K	White 4000K -4K	UV 365nm -365	UV 385nm -385	UV 395nm -395	UV 405nm -405	Blue 450nm -450	Green 524nm -524	Red 625nm -625	Deep Red 660nm -660	IR 730nm -730	IR 850nm -850	IR 950nm -950	SWIR 1050nm -1050	SWIR 1200nm -1200	SWIR 1300nm -1300	SWIR 1450nm -1450	SWIR 1550nm -1550
Continuous use power	100 %		175 %				200 %				200 %			200 %				
Semi-continuous use power	200 %		175 %				200 %				200 %			180 %				
Strobe use power	400 %		330 %				400 %				400 %			400 %				



## Genesi LUX®

GENESI ELETTRONICA SRL - VIA BACHELET, 3/A - 41057 SPILAMBERTO (MO) - ITALY

[info@genesi-lux.it](mailto:info@genesi-lux.it) - TEL. +39 059785566 - [www.genesi-elettronica.com](http://www.genesi-elettronica.com)

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Rev. 03/24

# GP Part Number

Ex. Code : **GPXXX** -**YYY** -**WW1** -**WW2**

XXX	Base Lengths
GP06	6 cm
GP12	12 cm
GP23	23 cm
GP36	36 cm
GP46	46 cm
GP56	56 cm
GP66	66 cm
GPXXX	From 6 cm to 300 cm on demand

-YYY	Led Colours		EN 62471
-6K	Base 6000K Cold White	White	-L10 RISK2
-4K	4000K Natural White		RISK1
-365	UV 365 nm	UV - A	RISK3
-385	UV 385 nm		
-395	UV 395 nm		
-405	UV 405 nm		
-450	450 nm Royal Blue	Visible	RISK2
-524	524 nm Green		RISK1
-625	625 nm Red		
-660	660 nm Deep Red		
-730	730 nm IR	Nir	RISK2
-850	850 nm IR		
-950	950 nm IR		
-1050	1050 nm SWIR	Swir	RISK2
-1200	1200 nm SWIR		
-1300	1300 nm SWIR		
-1450	1450 nm SWIR		
-1550	1550 nm SWIR		
-YYY	Colour on demand		

-WW1	Cover variants
-T	Base Trasparent cover
-OP	Base Opaline cover
-ST	Satin cover
-T65	Transparent cover IP65
-L10	10° lens, trasparent cover
-L30	30° lens, trasparent cover
-L60	60° lens, trasparent cover
-TP	Polarizing filter + Trasparent cover
-OPP	Polarizing filter + Opaline cover
-WW1	Cover on demand
-WW2	Cables
	20cm cable + M12 5P M
-WW2	Cable on demand

Not all combinations are available

## Part Number Examples:

### GP23-6K-T

power bar 4 Driving Modes 23 cm White 6000K Transparent cover  
2160/14400Lm 0,6/4A 14/96W 20cm cable M12 M 5P

### GP36-365-45T


power bar 4 Driving Modes 36 cm UV365nm 45° lens + transparent  
Cover 0,9/2,7A 22/65W 20cm cable M12 M 5P

### GP102-850-OP


power bar & backlight 4 Driving Modes 102 cm IR 850nm Opaline cover  
1/3,2A 24/77W 20cm cable M12 M 5P

# OPERATING MODE

## 100% CONTINUOUS USE


Connector	PINS	Function	Description
	1	+24 V	A) START NPN → PIN2: 0 to 1 V; B) START PNP → PIN4: 3 to 24 V;  For the continuous use: it is possible to connect PIN4 directly to +24 V or PIN2 to GND
	2	A) Start NPN: 0-1 V	
	3	GND	
	4	B) Start PNP: 3-24 V	
	5	-	

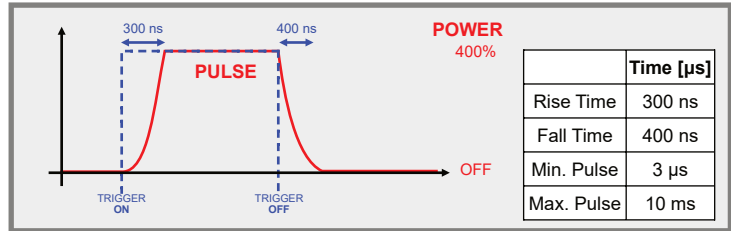
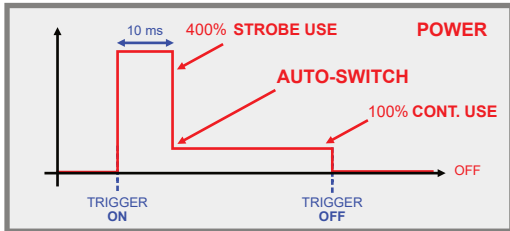
## 200 % SEMI-CONTINUOUS USE

Connector	PINS	Function	Description
	1	+24 V	<b>Precondition:</b> PIN5: 24 V  A) START NPN → PIN2: 0 to 1 V; B) START PNP → PIN4: 3 to 24 V;  <b>In this mode → Ton<sub>max</sub> = 60 s - Dt<sub>max</sub> = 50%</b>  For the semi-continuous use: it is possible to connect PIN4 directly to +24 V or PIN2 to GND.  To use it in continuous mode with DT <sub>max</sub> from 51% to 100%: it is necessary to use the heat sink or forced ventilation.
	2	A) Start NPN: 0-1 V	
	3	GND	
	4	B) Start PNP: 3-24 V	
	5	+24 V	


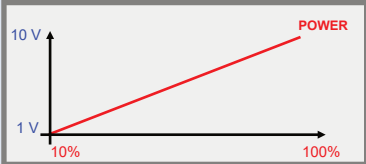
## 400% STROBE USE



Connector	PINS	Function	Description
	1	+24 V	A) START NPN → PIN2: 0 to 1 V; B) START PNP → PIN4: 3 to 24 V;  <b>In this mode → Ton<sub>max</sub> = 10 ms - Dt<sub>max</sub> = 10%</b>  AUTO-SWITCH in continuous use.
	2	A) Start NPN: 0-1 V	
	3	GND	
	4	B) Start PNP: 3-24 V	
	5	-	



## ANALOG REGULATION USE 100%

Connector	PINS	Function	Description
	1	+24 V	PIN5 from 1 to 10 V can adjust the power from 10% to 100%.  
	2	-	
	3	GND	
	4	-	
	5	1 V - 10 V	



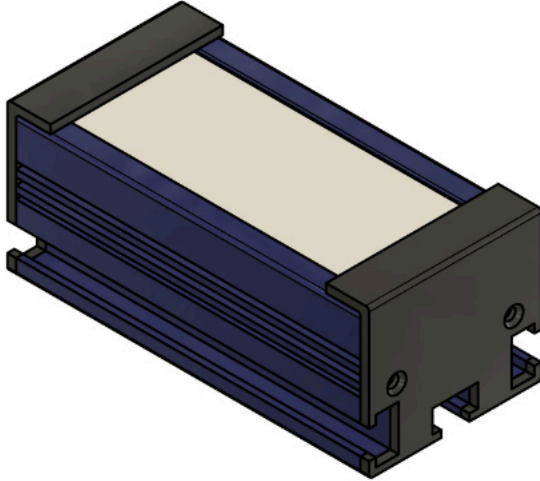
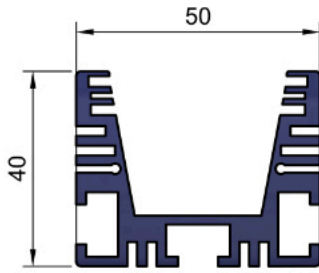
400% STROBE USE POWER can be reached only from WHITE / VISIBLE / NIR LEDS, for other wavelengths check the power table at page 1.



MicroController temperature protection → at 80°C the PCB enables the protection and restores the functioning at T < 60°C.

# MECHANICAL DRAWING

Scale	Unit of measurement
1:2	mm
<b>Weight GP12</b>	
275 g	
<b>Weight GP23</b>	
430 g	
<b>Weight GP66</b>	
1.243 Kg	



For 3D mechanical drawing requests - [info@genesi-lux.it](mailto:info@genesi-lux.it)

90°

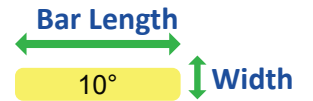
## LIGHT PROJECTION

- T		
Working distance	Width mm	Power W/m <sup>2</sup>
20 cm	TBD	TBD
40 cm	TBD	TBD
100 cm	TBD	TBD

60°

30°

10°



- ST		
Working distance	Width mm	Power W/m <sup>2</sup>
20 cm	TBD	TBD
40 cm	TBD	TBD
100 cm	TBD	TBD

- L60		
Working distance	Width mm	Power W/m <sup>2</sup> Continuous-Semi-cont.-Strobe
20 cm	TBD	TBD
40 cm	TBD	TBD
100 cm	TBD	TBD

- L30		
Working distance	Width mm	Power W/m <sup>2</sup> Continuous-Semi-cont.-Strobe
20 cm	70	270-480-1080
40 cm	160	126-224-504
100 cm	380	28-50-112

- L10		
Working distance	Width mm	Power W/m <sup>2</sup> Continuous-Semi-cont.-Strobe
20 cm	50	430-790-1580
40 cm	110	230-430-860
100 cm	200	95-173-346

- OP		
Working distance	Width mm	Power W/m <sup>2</sup> Continuous-Semi-cont.-Strobe
20 cm	270	19-37-74
40 cm	540	5,3-10,4-21
100 cm	1300	1-1,8-3,6

- OP BACKLIGHT FUNCTION	
Working Distance	Luminance cd/m <sup>2</sup> Continuous-Semi-cont.-Strobe
On Surface	48.000-88.000-115.000
homogeneity ± 5% for width 35 mm	

Powers related to the white colour homogeneity: ± 5%



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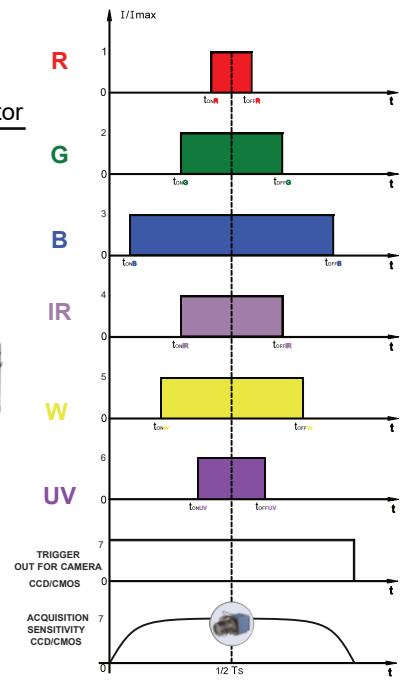
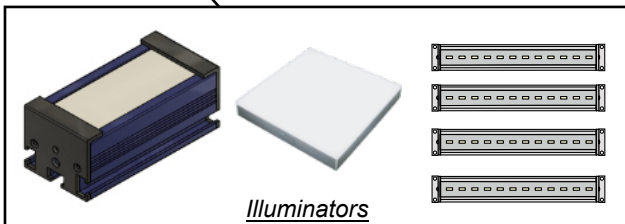
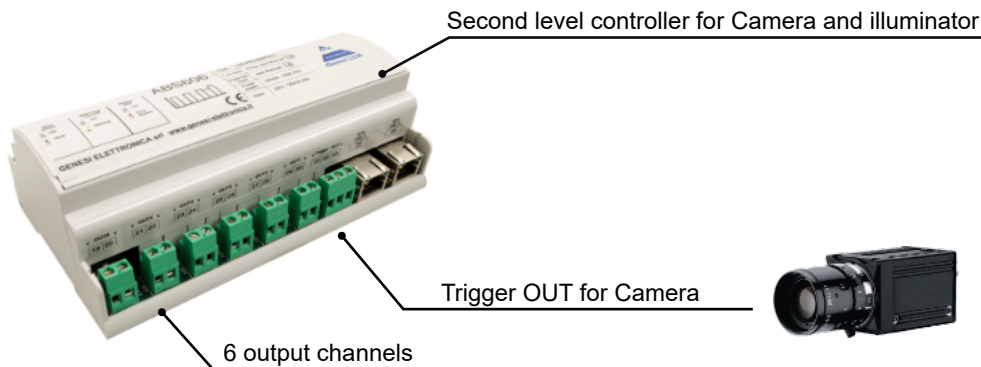
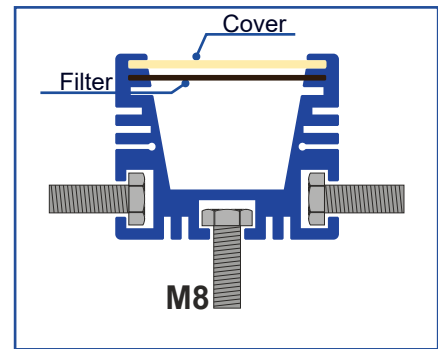
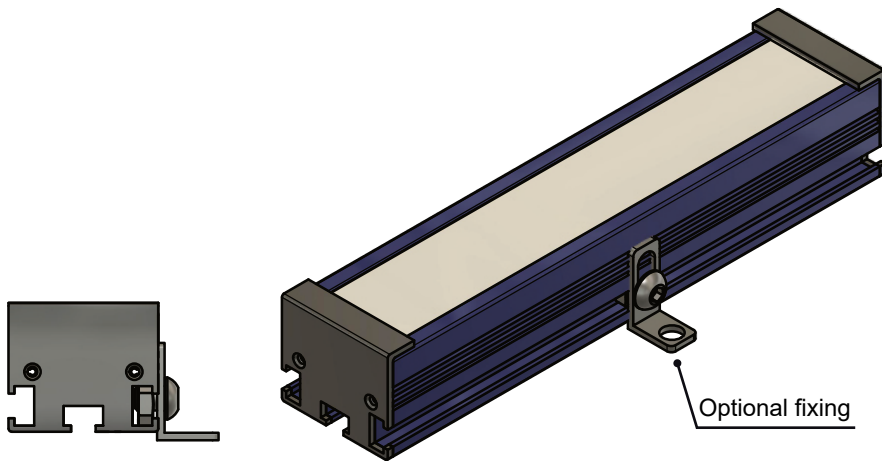


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Rev. 03/24

# ACCESSORIES

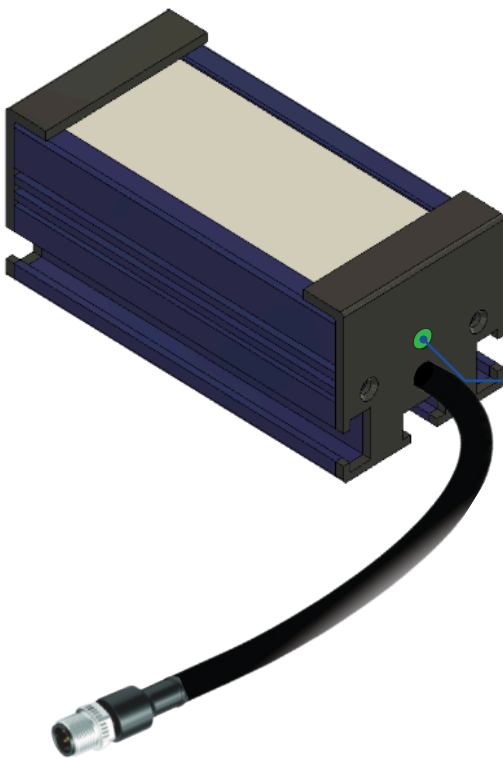
CODE	DESCRIPTION
GP-FIX	GP fixing kit (2pz)
GP-FIX-R	Rotating GP fixing kit (2 pz)
GP12-P-C0	accessory GP12 Polarizing filter 0 degree cut
GP23-P-C0	accessory GP23 Polarizing filter 0 degree cut
GP36-P-C0	accessory GP36 Polarizing filter 0 degree cut
GP46-P-C0	accessory GP46 Polarizing filter 0 degree cut
GP56-P-C0	accessory GP56 Polarizing filter 0 degree cut
GP66-P-C0	accessory GP66 Polarizing filter 0 degree cut
GE-M12F-5X050-2M	M12 connector 2 meter long female PVC cable
GE-M12F-5X050-5M	M12 connector 5 meter long female PVC cable
GE-M12F-5X050-10M	M12 connector 10 meter long female PVC cable
GE-ABS606E	LED Voltage Controller with 6 programmable channels and 10/100 Ethernet. Second level controller for Camera and illuminator.



## Tailor-Made

Connector	PINS	Function	Description
M12 Male	1		
	2		
	3		
	4		
	5		

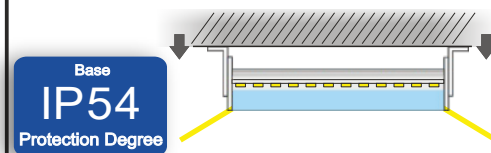
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## LED STATUS

Mode	Led colour signal	Function/note
Powered	Blue	-
100% Continuous use	Green	-
0-100% Analog Reg	Yellow	-
400% Strobe Use	Fast blinking green	-
200% Semi-continuous use standby	Purple	Without PNP or NPN input only +24V analog IN
200% Semi-continuous use	Slow blinking purple	With PNP or NPN input +24V analog IN
Over 10% ton error	Fast blinking red	10 sec stop
Over 80° temperature in pcb controller	Slow blinking green-yellow-red	Up to < 60° stop

The indicated IP protection degree is guaranteed only if the product is positioned downward



### STANDARDS

EMC immunity :	EN 61547:2009	
EMC emission :	EN 55015:2013 + A1	
Photobiologic risk :	EN 62471:2008 GLS: RISK 1	<b>Only for white light, continuous use</b>
Assessment of lighting equipment related to human exposure to electromagnetic fields	EN 62493:2015	

### WARNING

-Electrical device exclusively for professional use. Installation can be done by qualified personnel only.  
-In case of power supply wire damage, its replacement has to be done at the head office exclusively.

Warranty loss in case of inappropriate use and tampering.



Design & Production  
Made in Italy



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