

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.

Special version develop your custom

18 Standard Colours

Base IP65 Protection Degree

CE RoHS

24 Vdc

Optional Polarizing Filter

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 opaline or transparent 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 405nm -405	Blue 450nm -470	Green 530nm -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 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Semi-continuous use power	200 %	200 %	175 %	200 %	200 %	200 %	200 %	200 %	200 %	200 %	200 %	200 %	200 %	200 %	200 %
Strobe use power	500 %	500 %	330 %	500 %	500 %	500 %	500 %	320 %	320 %	320 %	320 %	320 %	320 %	320 %	320 %



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Rev. 02/24

GF Part Number

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

XXX	Length	Height
Thickness 26 mm		
GF180180	18 cm	18 cm
GF180300	18 cm	30 cm
GF240240	24 cm	24 cm
GF300300	30 cm	30 cm
GF300420	30 cm	42 cm
GF420420	42 cm	42 cm
GF480480	48 cm	48 cm
GBAAABBB	From 12 cm to 100 cm on demand	

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

-WW1	Cover variants
	Base Opaline cover
-T	Transparent cover
-OPC	Collimating filter + Opaline cover
-TP	Polarizing filter + Transparent cover
-OPP	Polarizing filter + Opaline cover
-WW1	Cover on demand

-WW2	Cables
	20 cm cable + M12 5P M
-WW2	Supply connection on demand

Cable extensions for M12: page 5

Not all combinations are available

Part Number Examples:

GF180180-6K
 Flat dome 4 Driving Modes 180x180mm Hole 55mm White 6000K
 Opaline cover 3450/23100Lm 0,96/6,4A 23/154W 20cm cable M12 M 5P

GF120120-850
 Flat dome 4 Driving Modes 180x180mm Hole 55mm IR 850nm
 Opaline cover 0,8/2,56A 19,2/61,5W 20cm cable M12 M 5P

GF480480-625
 Flat dome 4 Driving Modes 480x480mm Hole 55mm RED 625 nm
 Opaline cover 5,2/25,2A 121/605W 20cm cable M12 M 5P



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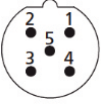
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OPERATING MODE

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	-	

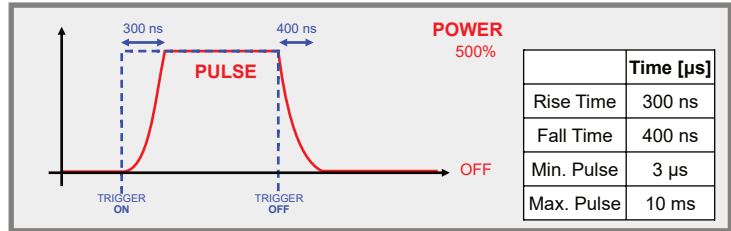
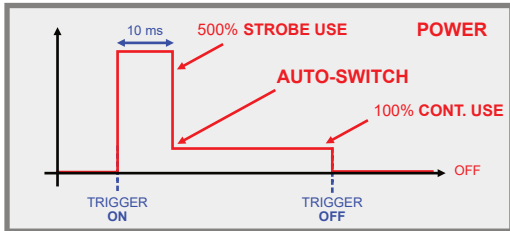
200% SEMI-CONTINUOUS USE

Connector	PINS	Function	Description
	1	+24 V	Precondition: PIN5: 24 V A) START NPN → PIN2: 0 to 1 V; B) START PNP → PIN4: 3 to 24 V; In this mode → Ton_{max} = 60 s - Dt_{max} = 50% 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 _{max} 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	


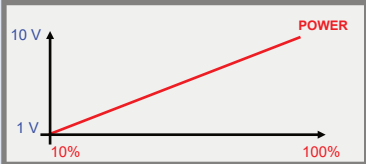
400% STROBE USE



Connector	PINS	Function	Description
	1	+24 V	A) START NPN → PIN2: 0 to 1 V; B) START PNP → PIN4: 3 to 24 V; In this mode → Ton_{max} = 10 ms - Dt_{max} = 10% 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	



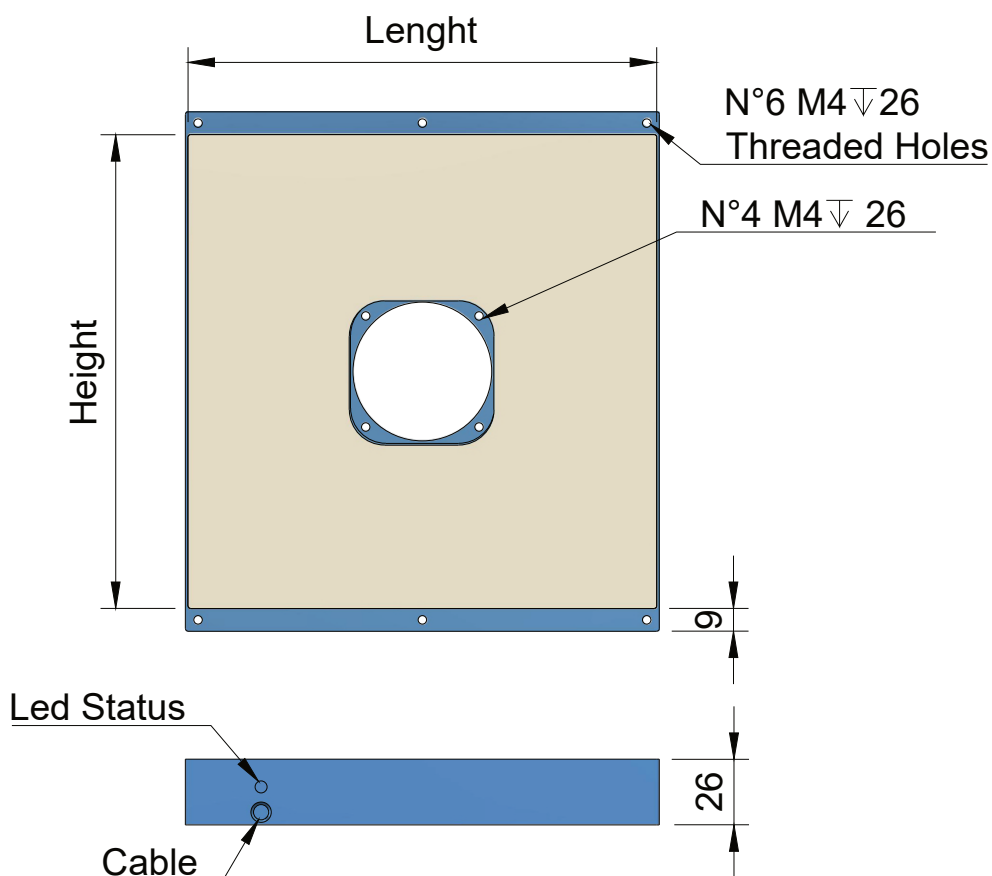
400% STROBE USE POWER can be reached only from WHITE / VISIBLE / NIR LEDS, for other wavelengths check the power table at page 1.



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

MECHANICAL DRAWING

Unit of measurement	mm
Weight GF180180	785 g
Weight GF300300	1.750 Kg
Weight GF420420	2.800 Kg



For 3D mechanical drawing requests - info@genesi-lux.it

LUMINOUS INTENSITY TEST

GF180180		GF300300		GF420420	
Working distance	Power W/m ² Cont./S.cont/Strobe	Working distance	Power W/m ² Cont./S.cont/Strobe	Working distance	Power W/m ² Cont./S.cont/Strobe
20 cm	42-85-170	20 cm	TBD	20 cm	TBD
40 cm	13-27-54	40 cm	TBD	40 cm	TBD

Powers related to the white colour with homogeneity: $\pm 5\%$



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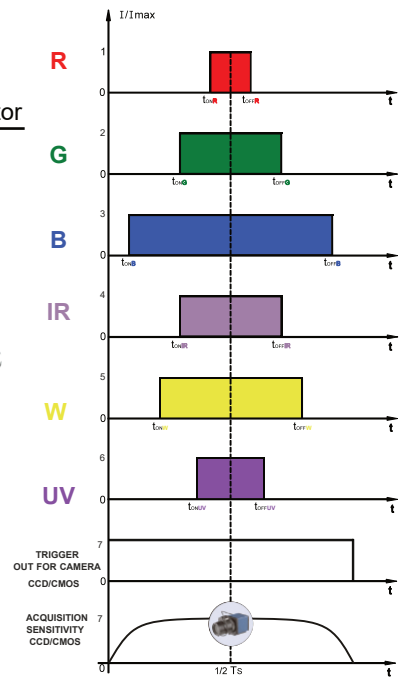
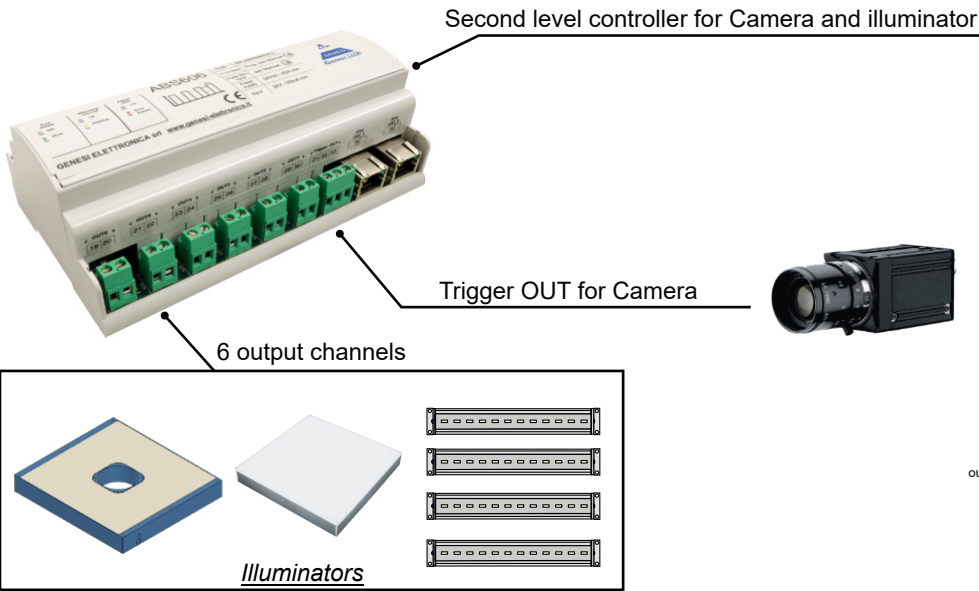
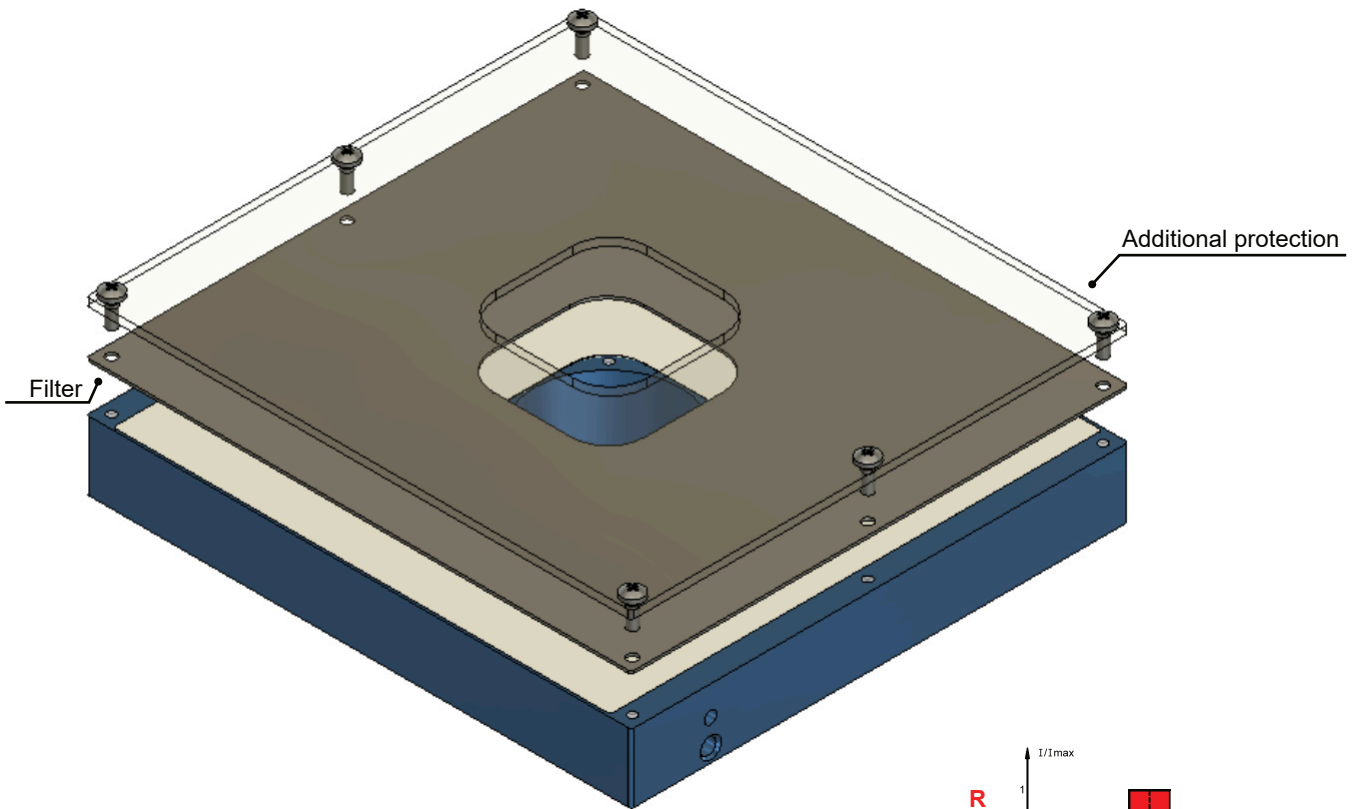


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ACCESSORIES

CODE	DESCRIPTION
GFAAABBB-PX2-AP	Additional protection 2 mm transparent plexiglass + screws
GFAAABBB-P-AP	Additional protection 2 mm Transparent plexiglass + Polarizing Filter horizontal + screws
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.



Design & Production
Made in Italy



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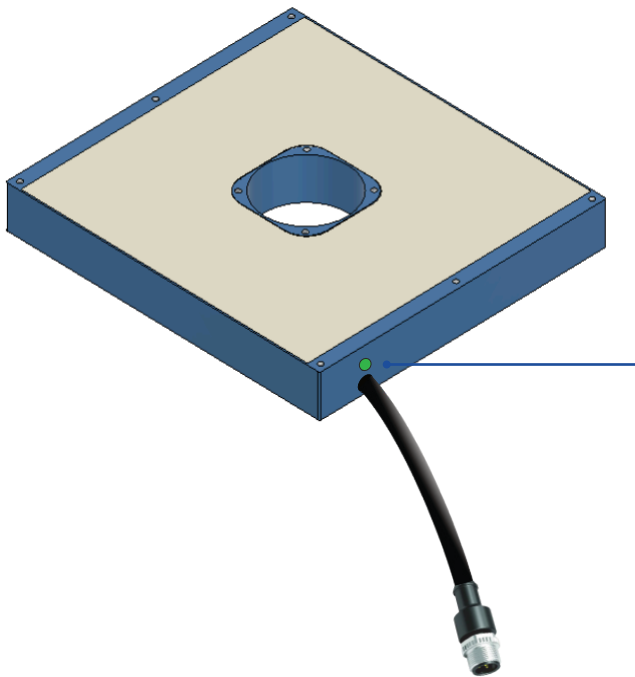
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Tailor-Made

Connector	PINS	Function	Description
M12 Male	1		
	2		
	3		
	4		
	5		

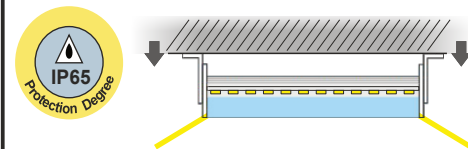
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LED STATUS

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	Only for white light, continuous use
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.



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