

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 IP65 Protection Degree

Stainless Steel IP69K Protection Degree

CE RoHS

24 Vdc

Optional Polarizing Filter

Optional Collimating 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 -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 % | 100 % | 100 % | 100 % | | | | | 100 % | | 100 % | | | | |
| Semi-continuous use power | 200 % | 175 % | 175 % | 200 % | | | | | 200 % | | 200 % | | | | |
| Strobe use power | 500 % | 330 % | 330 % | 500 % | | | | | 320 % | | 320 % | | | | |

GB Part Number

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

| AAABBB | Lengths | Heights |
|-----------------|-------------------------------|---------|
| Thickness 26 mm | | |
| GB060060 | 6 cm | 6 cm |
| GB060120 | 6 cm | 12 cm |
| GB060180 | 6 cm | 18 cm |
| GB120120 | 12 cm | 12 cm |
| GB120180 | 12 cm | 18 cm |
| GB180180 | 18 cm | 18 cm |
| GB180300 | 18 cm | 30 cm |
| GB300300 | 30 cm | 30 cm |
| GB300420 | 30 cm | 42 cm |
| GB420420 | 42 cm | 42 cm |
| GBAAABBB | From 6 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 |
| -X69K | Stainless Steel IP69K |
| -WW1 | Cover on demand |

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

| Cover Accessory | |
|-----------------|--|
| GBAAABBB-PX2-AP | |
| GBAAABBB-P-AP | |
| GBAAABBB-C-AP | |

Not all combinations are available

Part Number Examples:

GB180180-6K

Backlight 4 Driving Modes 180x180mm White 6000K Opaline cover
3900/26000Lm 1,08/7,2A 26/173W 20cm cable M12 M 5P

GB120120-524


Backlight 4 Driving Modes 120x120mm GREEN 624nm Opaline cover
0,64/3,2A 15/77W 20cm cable M12 M 5P

GB180240-1550

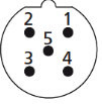
Backlight 4 Driving Modes 180x240mm SWIR 1550nm Opaline cover
1,2/3,84A 29/92W 20cm cable M12 M 5P

OPERATING MODE

100% CONTINUOUS USE

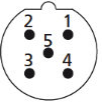
| Connector | PINS | Function | Description |
|---|------|----------------------|---|
|  | 1 | +24 V | A) START NPN → PIN2: 0 to 1 V; B) START PNP → PIN4: 3 to 24 V; For the continuous use: it is possible to connect PIN4 directly to +24 V or PIN2 to GND |
| | 2 | A) Start NPN: 0-1 V | |
| | 3 | GND |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

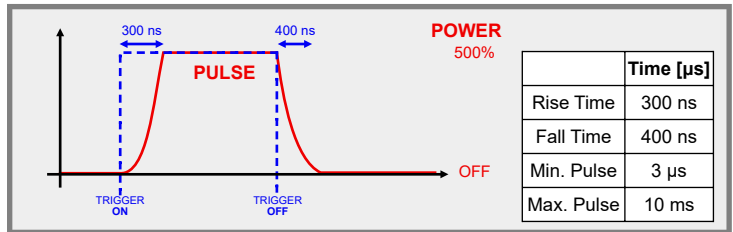
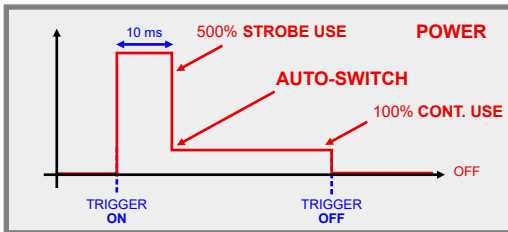
200% SEMI-CONTINUOUS USE

| Connector | PINS | Function | Description |
|---|------|----------------------|---|
|  | 1 | +24 V | 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 | |

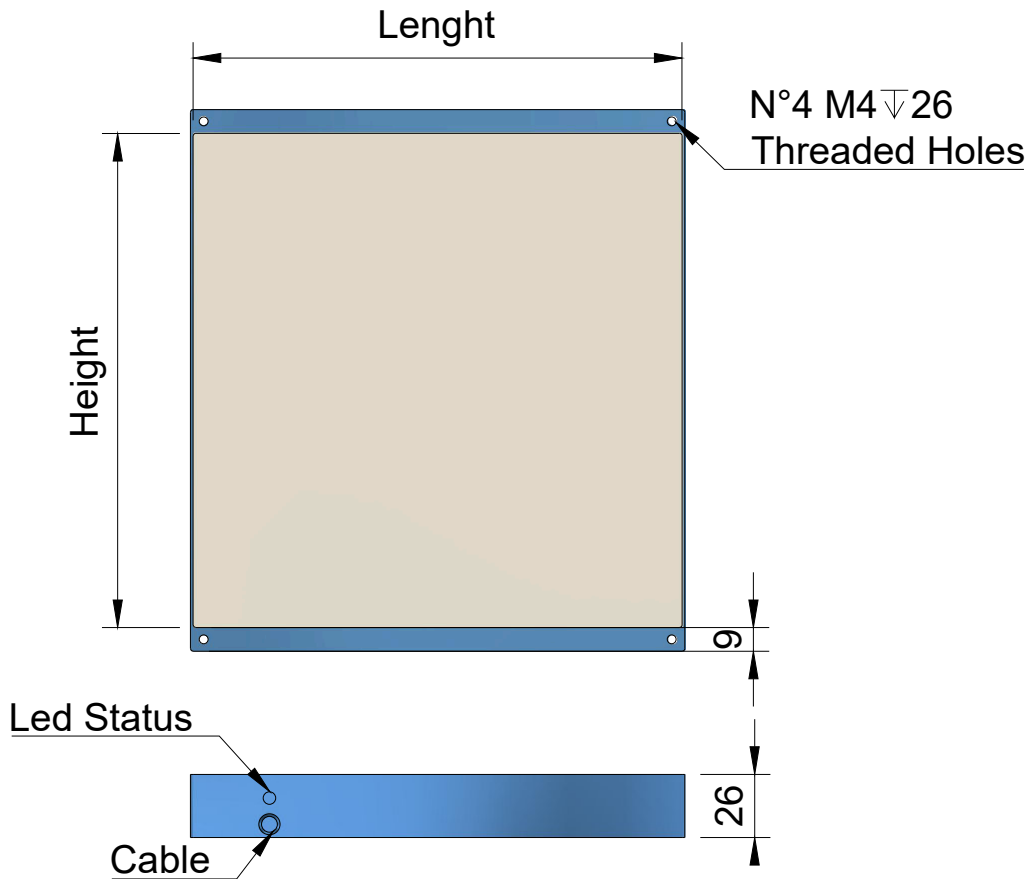


400% STROBE USE POWER can be reached only from WHITE / VISIBLE / NIR LEDs, for other wavelengths check the power table at page 1.



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

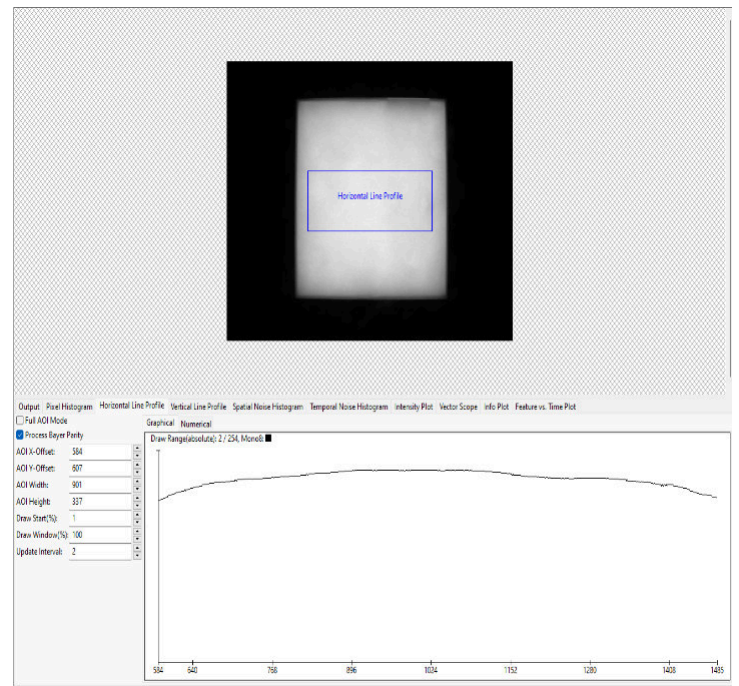
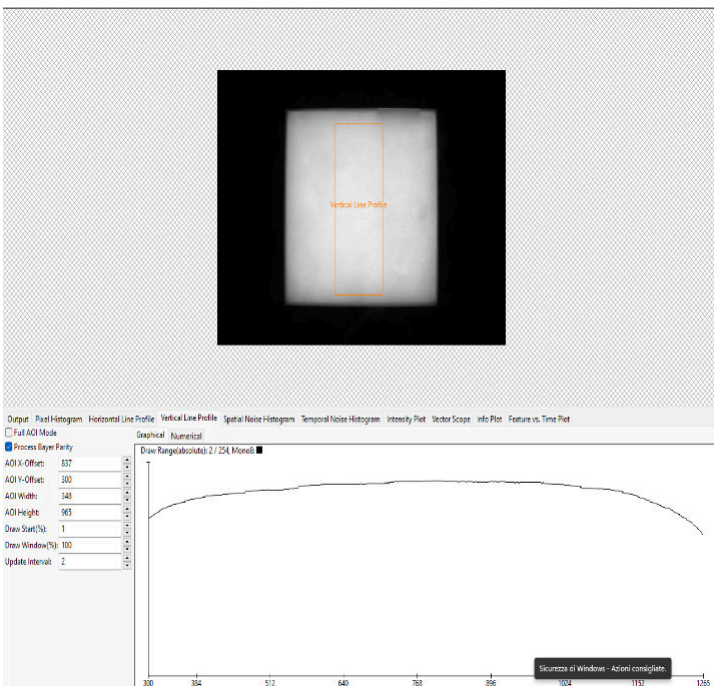
| | |
|----------------------------|-------|
| Weight GB060060 | 230g |
| Weight GB120120 | 450g |
| Unit of measurement | mm |
| Weight GB180180 | 750 g |



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

| - OP BACKLIGHT FUNCTION | |
|-------------------------|---|
| Working Distance | Luminance cd/m ² Continuous - Semi Cont. - Strobe |
| On Surface | 32.000-64.000-128.00 |

LIGHT UNIFORMITY TEST

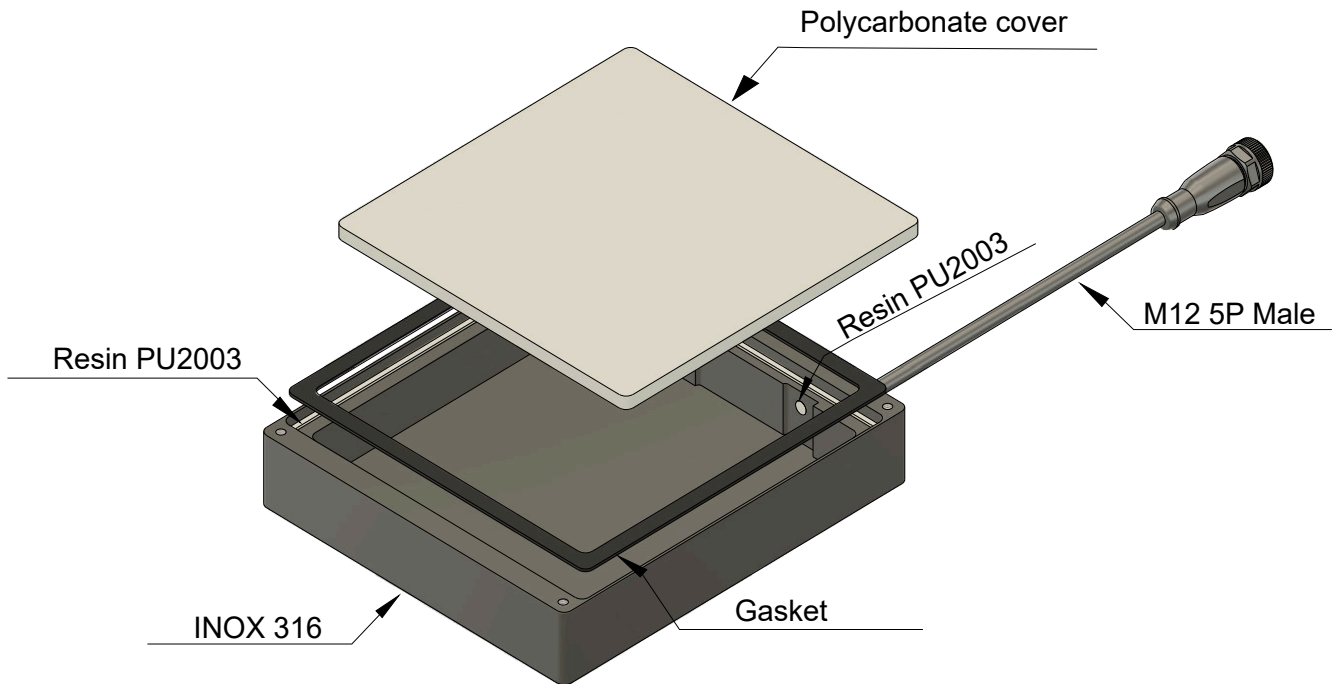
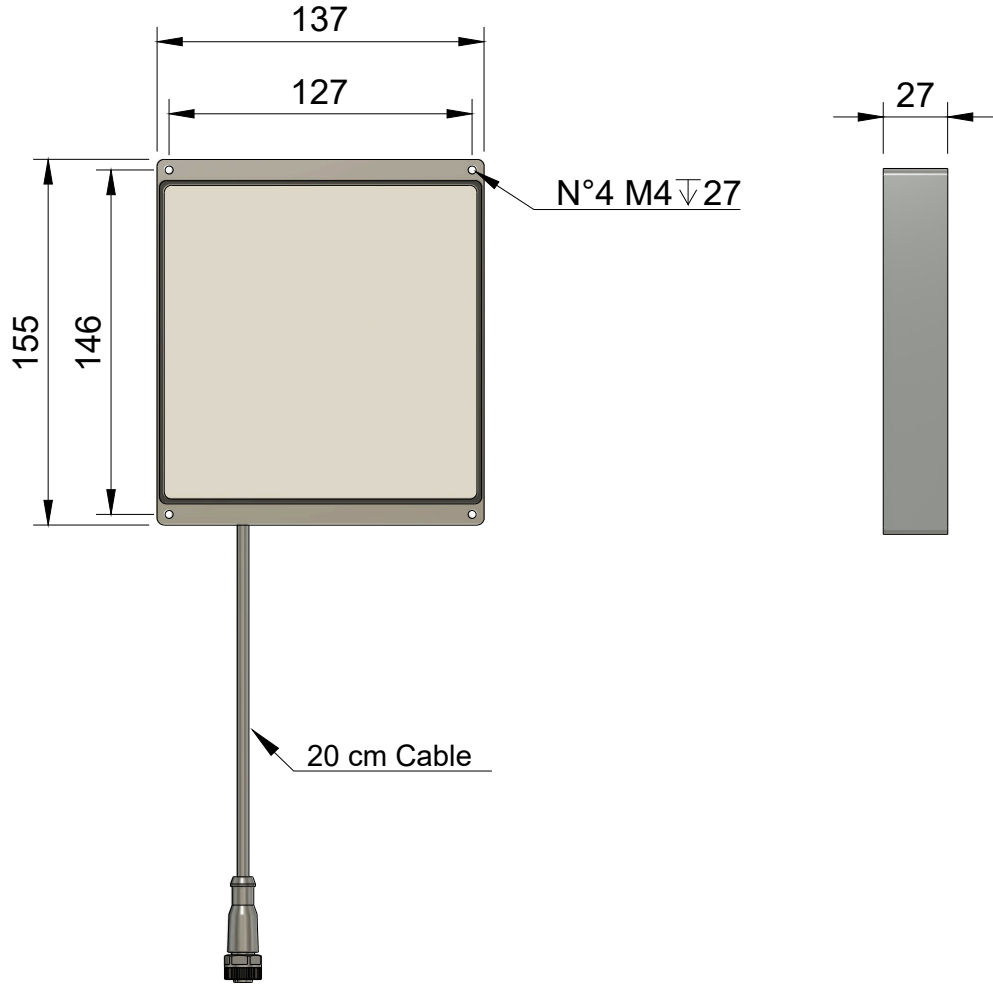


Powers related to the white colour with homogeneity: $\pm 5\%$

| |
|-----------------|
| -X69K Version |
| Weight : 1,5 kg |

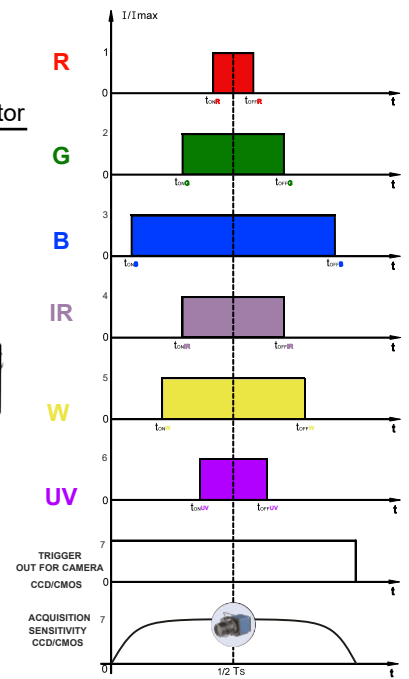
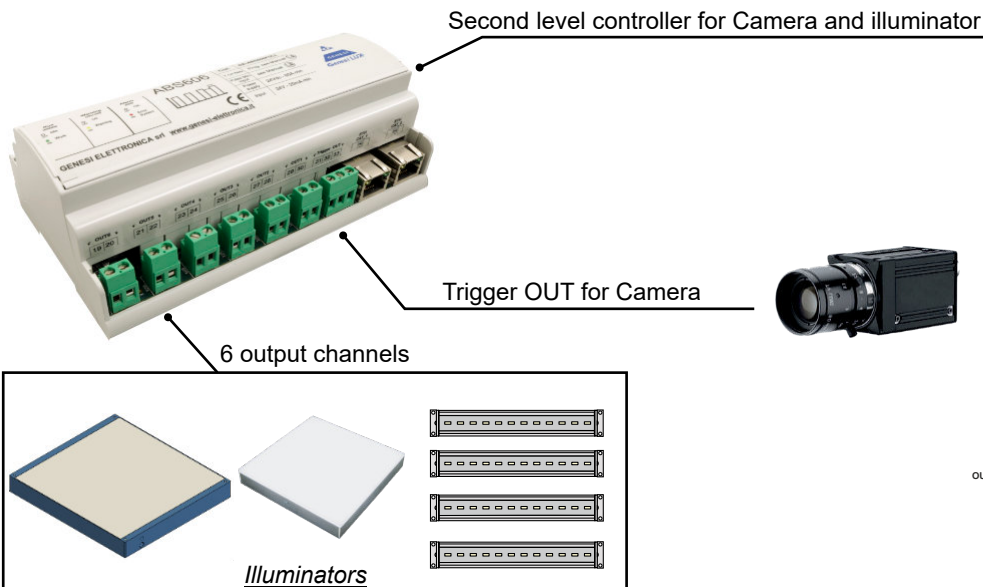
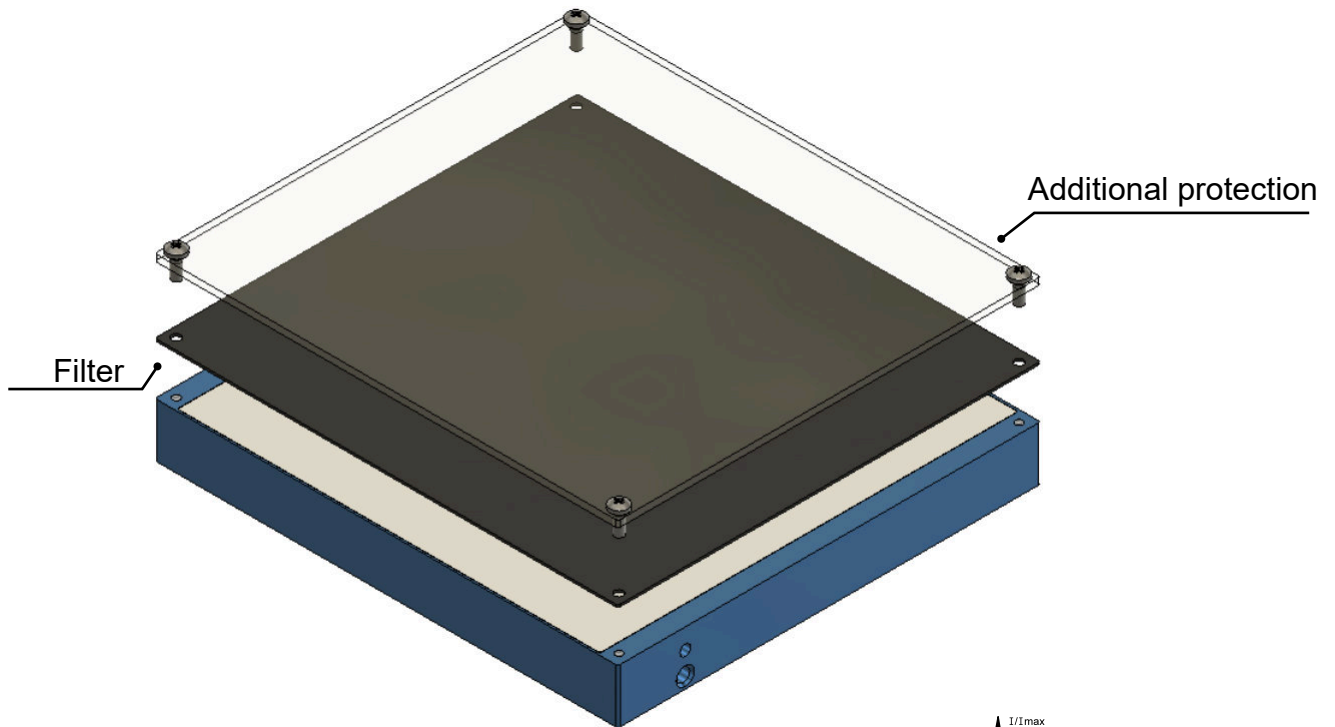
-X69K Version

(IP69K ,INOX)



ACCESSORIES

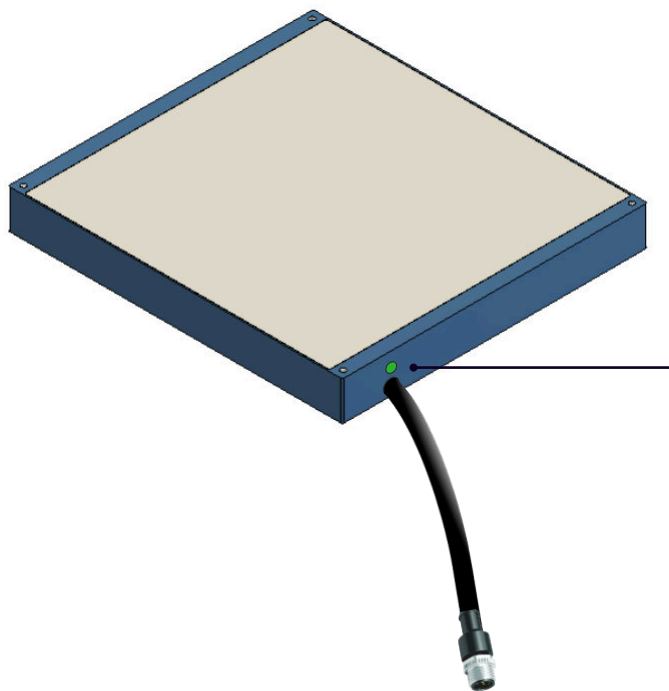
| CODE | DESCRIPTION |
|-------------------|---|
| GBAAABBB-PX2-AP | Additional protection 2 mm transparent plexiglass + screws |
| GBAAABBB-P-AP | Additional protection 2 mm Transparent plexiglass + Polarizing Filter horizontal + screws |
| GBAAABBB-C-AP | Additional protection 2 mm Transparent plexiglass + Collimating Filter + 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. |











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 |

STANDARDS

| | | |
|--|--------------------|--|
| EMC immunity : | EN 61547:2009 | |
| EMC emission : | EN 55015:2013 + A1 | |
| Photobiologic risk : | EN 62471:2008 GLS: | |
| 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



Genesi LUX

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