

Within MERAKI LED MODULES family, we can find 300x12 mm linear modules, ideal for small size fixtures that require high performance and connection flexibility.

These modules are very simple to connect and to assembly to any surface, i.e. aluminum, wood or metal. Specially indicated for use in shelves, window display, and similar.

The modules have two different functioning: medium flux that requires no additional heatsinks, and high flux. The modules are available on diverse CCT and SELV voltage.



In compliance with:

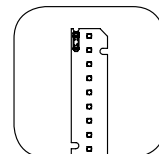
**IEC 62031 / IEC 62471 / IEC 62717**

### APPLICATION



### PRODUCT DESCRIPTION

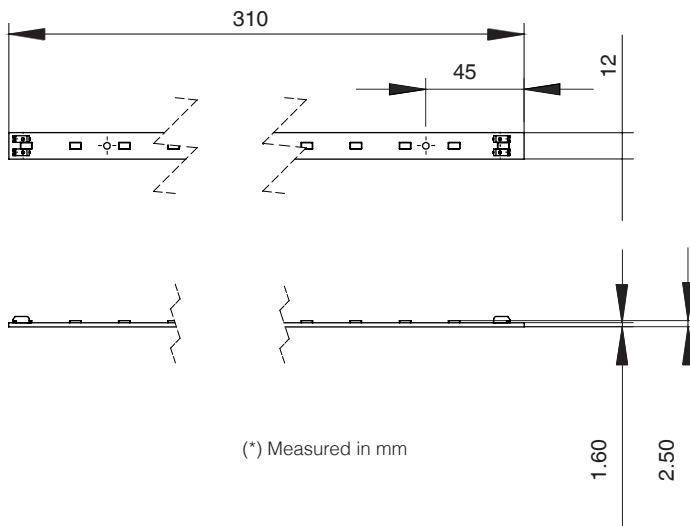
- Available in 2700-3000-4000 -5000K
- CRI >80 (CRI90 available under request)
- Efficiency > 140lm/W
- Colour tolerance 3 SDCM
- Space-saving design
- Facilitates installation
- Life-time exceeds 50.000 hrs
- Voltage 24Vcc



### TECHNICAL DATA

- SELV voltage
- Available in 2700K/3000K/4000K/5000K
- Typical CRI80 (CRI90 available under request)
- Operating temperature between -30°C and 45°C
- EN 61471:2008 group 1
- Standard Tc 75°C
- LED viewing angle 120°
- Weight 12 g
- MOQ 60 pieces
- Packaging box weight 1100 g

### DIMENSIONS



### SPECIFIC TECHNICAL DATA

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CODE	CCT	RATED CURRENT mA	VOLTAGE Min (V)	VOLTAGE Typ(V)	VOLTAGE Max(V)	NOMINAL POWER (W)	LUMINOUS EFFICACY (lm/W)	TOTAL FLUX (lm)	PHOTO METRIC CODE
70 mA: 16R Máx 15 PCB's 4,5 m									
31.13.0640/A	2700K	134	21	24	27	3,23	117,07	378,5	827.348
31.13.0641/A	3000K	134	21	24	27	3,26	137,72	450,3	827.348
31.13.0642/A	4000K	134	21	24	27	3,24	142,74	463,6	827.348
31.13.0643/A	5000K	134	21	24	27	3,24	155,62	505,4	827.348
100mA: 10R Máx 11 PCB's 3,5m									
31.13.0650/A	2700K	195	21	24	27	4,62	115,26	532,7	827.348
31.13.0651/A	3000K	195	21	24	27	4,69	134,49	631,4	827.348
31.13.0652/A	4000K	195	21	24	27	4,74	139,92	663,7	827.348
31.13.0653/A	5000K	195	21	24	27	4,74	143,15	679	827.348

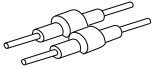
Note: Optical and electric measures with tolerance of +/- 10%.

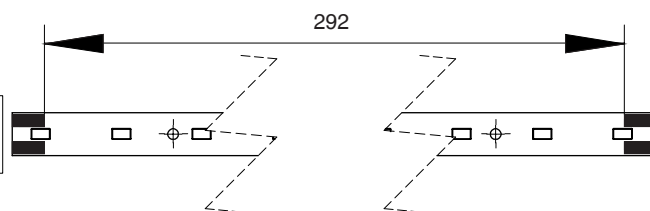
For higher fluxes (100mA) is required to keep Tc < 65°C, with heatsink (not included).

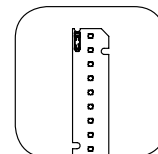
For PCB supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.0653/AC

QTY LED 14 CRI >82

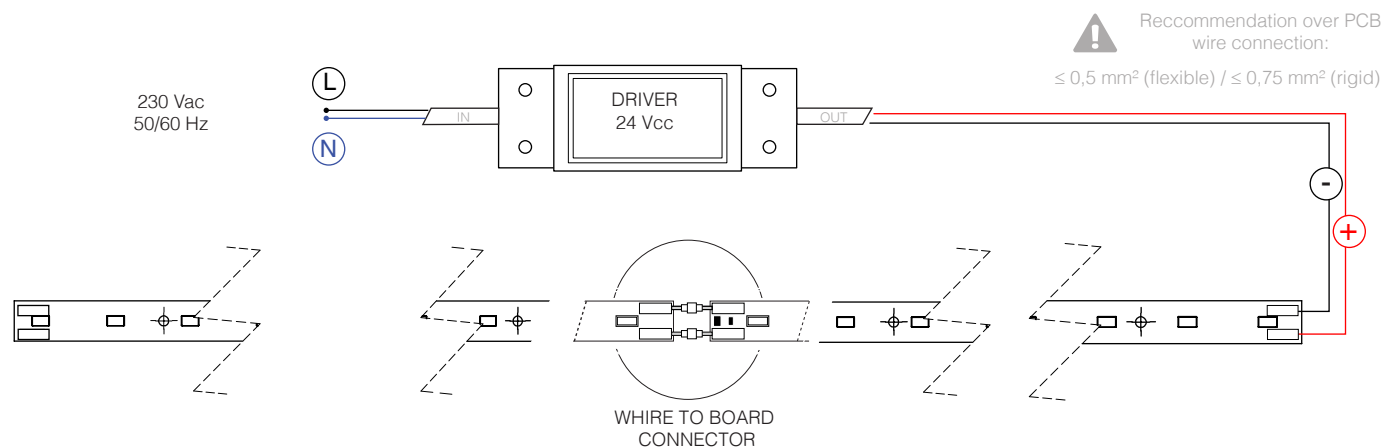
### Module for board to board connector:

<b>A</b>	Board to board connector Ref. 06.345		26 mm	Max.6A
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### DRIVER + MODULE CONNECTION EXAMPLE



### SPECIFIC TECHNICAL DATA

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CODE	CCT	RATED CURRENT mA	VOLTAGE Min (V)	VOLTAGE Typ(V)	VOLTAGE Max(V)	NOMINAL POWER (W)	LUMINOUS EFFICACY (lm/W)	TOTAL FLUX (lm)	PHOTO METRIC CODE
70 mA: 16R Máximo 15 PCB's 4,5 m									
31.13.0640/B	2700K	134	21	24	27	3,23	117,07	378,5	827.348
31.13.0641/B	3000K	134	21	24	27	3,26	137,72	450,3	827.348
31.13.0642/B	4000K	134	21	24	27	3,24	142,74	463,6	827.348
31.13.0643/B	5000K	134	21	24	27	3,24	155,62	505,4	827.348
100mA: 10R Máximo 11 PCB's 3,5m									
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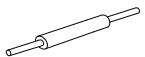
Note: Optical and electric measures with tolerance of +/- 10%.

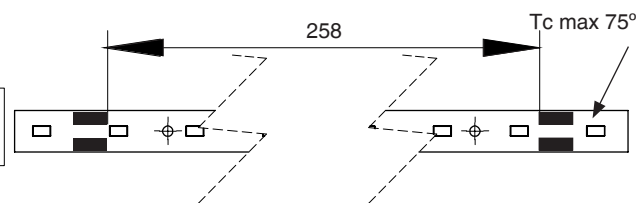
For higher fluxes (100mA) is required to keep Tc < 65°C, with heatsink (not included).

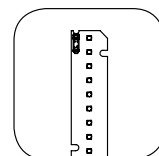
For PCB supply including high adhesion thermal tape, please add the letter "C" behind the product code. Example: 31.13.0653/BC

QTY LED 14 CRI >82

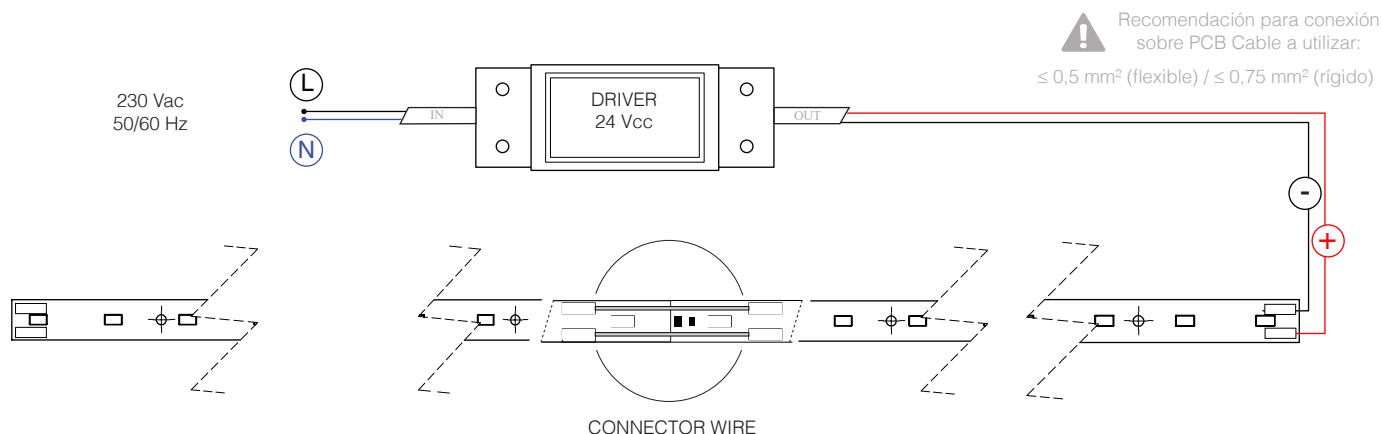
#### Module for rigid connector:

<b>B</b>	RIGID wire Ref. 51.002		50 mm	Max.3A
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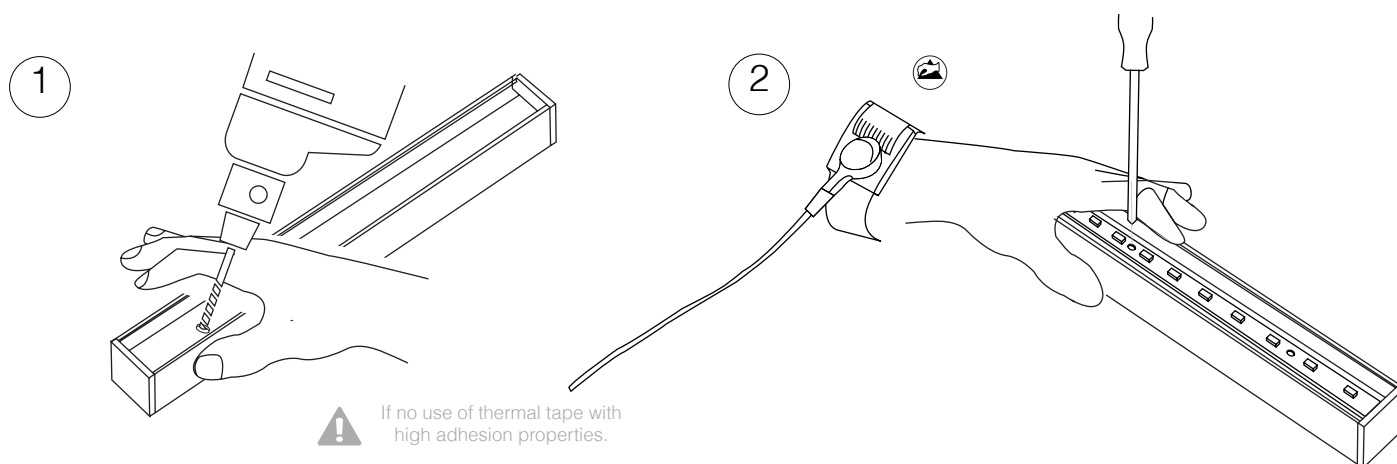




### EJEMPLO DE CONEXIÓN DRIVER + MODULO

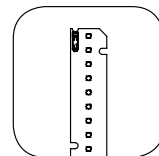


### INSTALLATION AND CONNECTION EXAMPLE



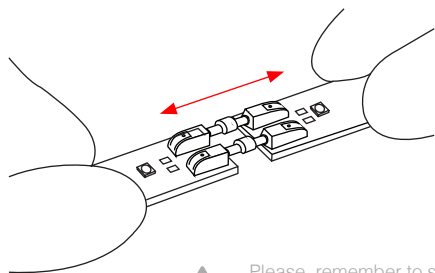
For eventual attachment of the fixture (with no use of double sided tape) drill a hole in the profile.

Place the PCB and apply pressure. Fix the screws to the fixture base. (\*) Accessory: M3 screws.



### INSTALLATION AND CONNECTION EXAMPLE

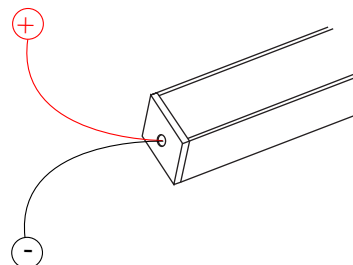
3



Please, remember to specify the exact desired position for the connector.

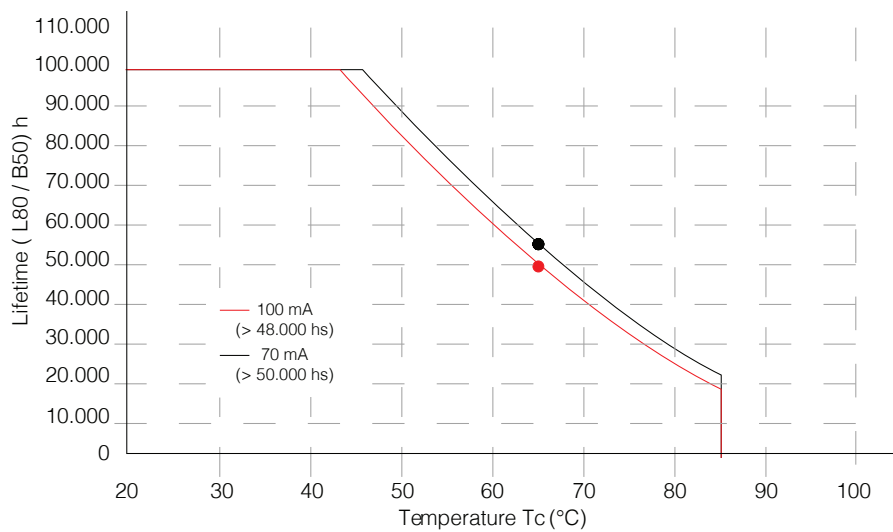
Place the board to board connectors for interconnection.

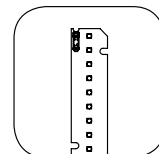
4



Introduce the positive (+, red) and negative (-, black) wires in the pre-made holes, and connect them to appropriate voltage.

Lifetime Derating for MERAKI CIRCULAR CV - MEDIUM FLUX





### SECURITY AND INSTALLATION INFORMATION



#### ELECTRICAL POWER

MERAKI HIGH LINEAR 3012 must be feed at constant current; the energy source power must be in accordance with the quantity of connected modules for proper functioning of the module (or group of modules). Family MERAKI LED MODULES have polarity, for this reason rated current, nominal power and polarity must be taken into account. If that is not the case, the module might be irreversibly damaged. MERAKI LED MODULES require specific driver protection against short-circuit currents, temperature raise and overloads.



#### ISOLATION

MERAKI HIGH LINEAR 3012 functions with SELV voltage, does not require active isolation of the component as long as maximum reference SELV voltage of 50V is not exceeded. In other case, it will be mandatory earth connection on all conductive components of the fixture or light engine when the number of modules in the series exceeds SELV voltage. The driver must be in compliance with CE, UL or valid analogous regulation.



#### ESD – STATIC ELECTRICITY INFORMATION

MERAKI HIGH LINEAR 3012 is contains electronic components which are very sensible to static electricity. In this respect is it highly recommendable to always manipulate the items with appropriate ESD protection, and take adequate measures for safety matters. If you need further information please refer to our webpage [www.idled.eu](http://www.idled.eu).



#### MOUNTING AND INSTALLATION

I+D LED S.L. is not responsible for the installation of the product. MERAKI HIGH LINEAR 3012 must be perfectly placed (and/or stick) on the lighting device, profile or base for a proper connection between modules and power source. Thermal transference between PCB and luminaire body must be at its highest, in order to ensure that fixture temperature does not exceed  $T_c$  in any case.

If any type of chemical substance is used during the assembly of the luminaire or light engine, it must not have any type of curing by means of gas condensation; as these chemical substances may damage the LEDs.

The module will be delivered with 5 pre-made holes of  $D=4$  mm according to dimensions drawing (ZHAGA L2W4).

Maximum torque for fixing recommended 0,4-0,5 Nm to avoid mechanical stress. Ideal wire for this connection type is unipolar rigid wire of 0,4-1mm<sup>2</sup>, with a strip wire of 6,5-7MM. To remove wire, push orifice on the connector and pull smoothly.



#### TEMPERATURE

MERAKI HIGH LINEAR 3012 life-time depends to a great extent on operating temperature. Under no circumstance temperature should exceed the maximum permissible ( $T_c=75^{\circ}\text{C}$ ) limit here indicated. Exposure to higher temperatures might affect its long term proper functioning. Room temperature must be measured under worst-case conditions to ensure life-time and keep product's guarantee. Store modules between  $-20^{\circ}\text{C}$  and  $+80^{\circ}\text{C}$ , and at a maximum humidity level of 65%.



#### OPTICAL CHARACTERISTICS + CCT

Measurement of LED discrete points may have variations in regards on the CCT temperature here described, with a variance of 3SDCM for white and  $\pm 5\text{nm}$  for coloured LEDs. CCT shifts  $\pm 0,001$  at 6.000 hrs. 3 SDCM are declared over the complete module. Modules viewing angle is  $120^{\circ}$ .