COMELIT

people, ideas, solutions

INDEX

COMELIT

comelit, why?

WHY CHOOSE COMELIT LED SYSTEMS?

A careful evaluation is essential above all with regard to these new applications being presented to market as innovative solutions.

Without an adequate knowledge and a highly professional approach there is the risk of losing all of the advantages that characterise this technology which has been identified as the lighting of the future.

It is therefore fundamental to identify: the best dissipation system, a product suitable to the application, an analysis of the working conditions and the choice of the best power supply.

Comelit with its highly professional and historic experience, presents itself as an ideal partner to find and apply the best solutions for each new project.

The high standard of quality, the accurate choice of the raw materials to be used, the strict checks on the product, the respect of all related international standards, guarantee an optimal performance and efficiency making Comelit LED systems into products of the highest quality and reliability.

led, why?

ENERGY SAVING

The energy use of a LED lamp is noticeably lower, considering the same amount of light emitted, in comparison with that of other light sources. This prerogative has been further improved by Comelit by means of a purposely built light control sensor, which allows the modification from maximum intensity, in dark conditions, to total switch off, in the presence of sufficient ambient light.

EFFICIENCY AND LONGEVITY

One of the main characteristics of LEDs is that of having a life expectancy which is much higher than of other light sources. Comelit LED systems are guaranteed for 50 000 hours.

POST SALES

The high efficiency and longevity of the LED, means a radical reduction in the costs for maintenance and post sales, guaranteeing in this way to the user a big saving in terms of management and assistance costs.

standards

STANDARDS

EN62471 2008 Photobiological safety of lamps and lamp systems

EN61347-2-13 Lamp controlgear. Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

EN62384 DC or AC supplied electronic control gear for LED modules. Performance requirements

EN 62031 LED modules for general lighting. Safety specifications

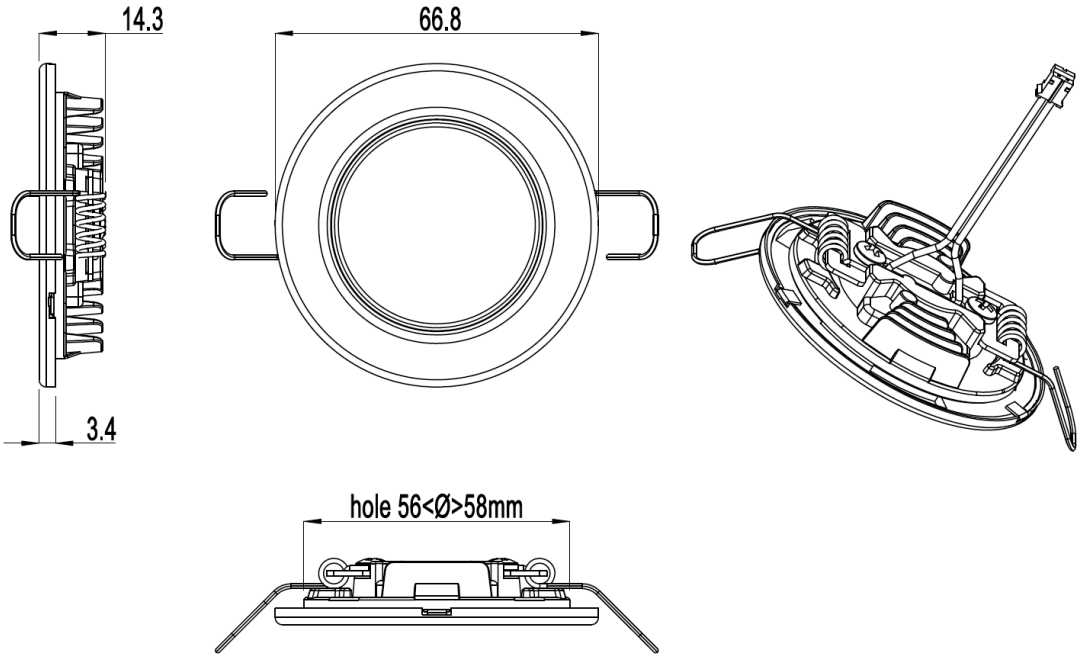
IEC 60529 degrees of protection provided by enclosures (IP code)

COMELIT

SPOT LIGHT ∅ 55

VERSION A FLAT SERIES
TORSION SPRING

Parabola with flat profile



THROUGH HOLE 56/58 mm

Torsion spring guarantees hold on applications with panels up to 30 mm thickness

PROPERTIES

Parabola with deep or flat profile manufactured in polycarbonate. Easy fixing system wih torsion spring. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficient heat elimination. Free wire connection with 35 cm standard length. Ring with external finish avaliable in different colours. Standard protection grade IP54. Standard protection grade IP65 supplied on request (obtained with O-Ring). Total absence of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

APPLICATION

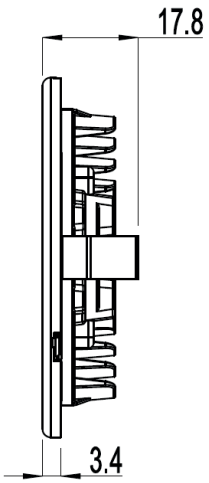
On all panels provided with through hole and max 30mm thickness

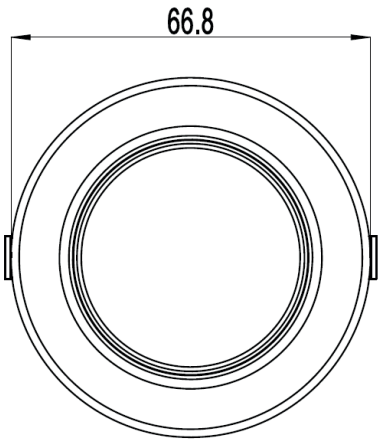
NOTES

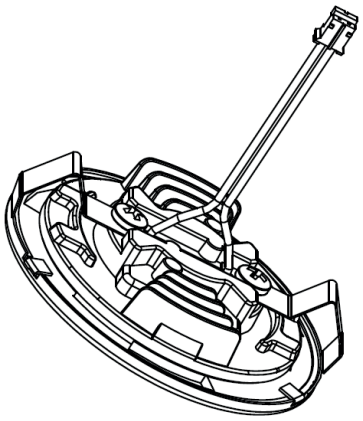
For correct usage of led lamp for your application please contact Comelit technical staff

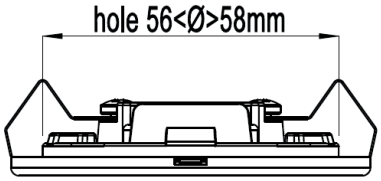
VERSION B FLAT SERIES
TAPE SPRING

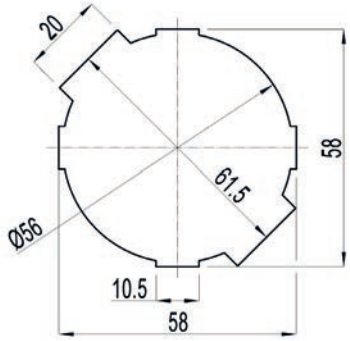
Parabola with flat profile











panel cut template (mm)

THROUGH HOLE 56/58 mm and ANTIROTATION

Tape spring guarantees hold and antirotation on applications with metalic panels up to 2mm thickness

PROPERTIES

Parabola with deep or flat profile manufactured in polycarbonate. Easy fixing system with tape spring. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficient heat elimination. Free wire connection with 35 cm standard length. Ring with external finish available in different colours. Standard protection grade IP54. Protection grade IP65 supplied on request (with O-Ring). Total absence of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

APPLICATION

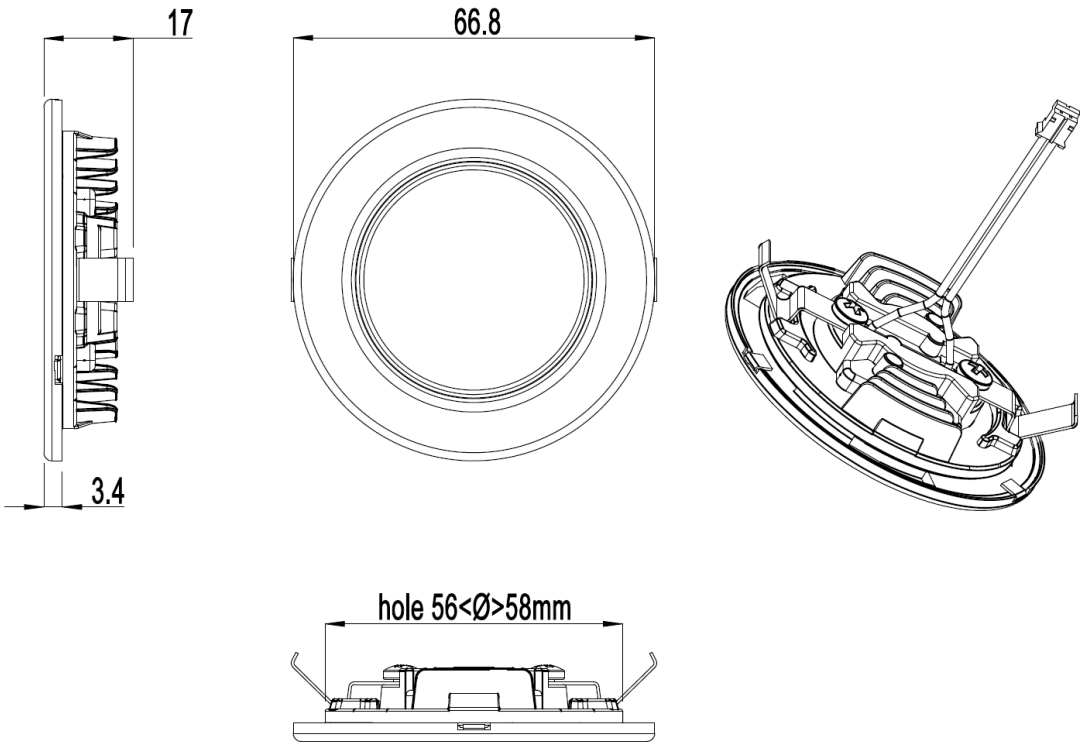
On metallic panels with through holes and thickness up to 2mm with antirotation. On dead holes with P>15mm

NOTES

For correct usage of led lamp for your application please contact the Comelit technical staff

VERSION C FLAT SERIES
TAPE SPRING

Parabola with flat profile



DEAD HOLE 56/58 mm H>14mm

This kind of tape spring guarantees hold on wood panels with dead holes. A minimum hole depth of 14mm is required

PROPERTIES

Parabola with deep or flat profile manufactured in polycarbonate. Easy fixing system with tape spring. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficiïent heat elimination. Free wire connection with 35 cm standard length. Ring with external finish available in different colours. Standard protection grade IP54. Protection grade IP65 supplied on request (with O-Ring). Total absence of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

APPLICATION

In particular on panels with dead holes with hole depth of at least 14mm

NOTES

For correct usage of led lamp for your application please contact the Comelit technical staff

Led	Led Code	Emission Angle	Temp. colour	Power	Current	Minimum Luminous Flux	Average ill. (60 cm)
n°	cod.	degrees	K	W	mA	lm	lux
1	1OA60019	80	5700-6500	2,5	700	150	170
1	1OA60020	80	3900-4500	2,5	700	135	153
1	1OA60021	80	2800-3200	2,5	700	115	130
2	1OA60019	80	5700-6500	3	450	200	226
2	1OA60020	80	3900-4500	3	450	170	192
2	1OA60021	80	2800-3200	3	450	155	175

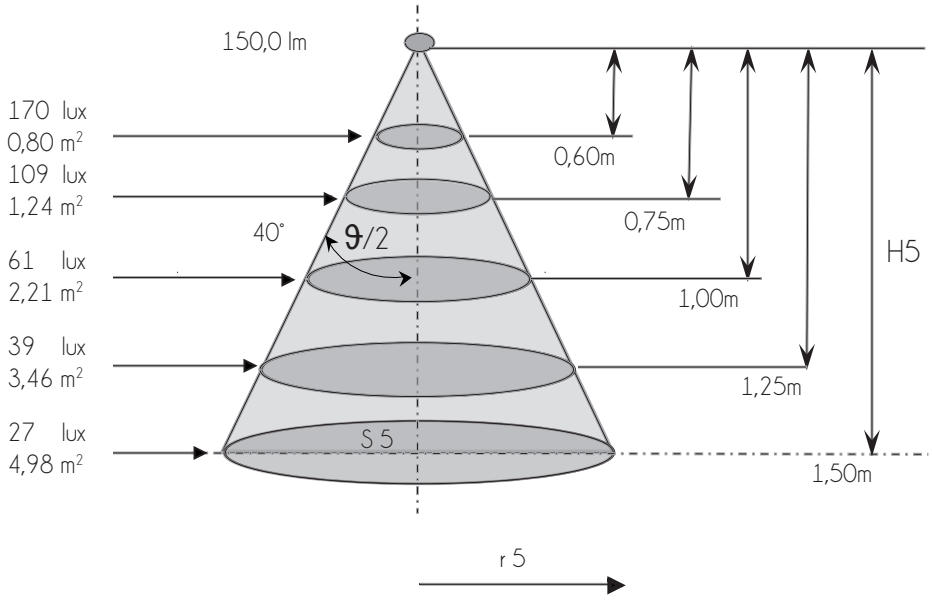
GENERAL DATA:
Ta = 50°C
Tc (max) = 90°C
Life expectancy L70 : 50000 hours

AVERAGE LUX DEPENDING ON: DISTANCE OF THE LIGHT SOURCE-SURFACE, EMISSION ANGLE, LUMEN EMITTED

CHARACTERISTIC OF THE SOURCE OF LIGHT
Spot light with 1 LED 100 lmMIN @350 mA powered at 700 mA; 6000°K

Lumen emitted by the light source	Emitted angle s.l.	Lens efficiency
I [lm]	ϑ/2 [°]	
150,0	40,0	0,90

AVERAGE LUX (H, lm, J)				
	Distance from surface	Lighted surface		Average Lux L (H, lm, J)
N°	H (1,5) [m]	S (1,5) [m²]	r (1,5) [m]	L [lux]
1	0,60	0,80	0,50	170
2	0,75	1,24	0,63	109
3	1,00	2,21	0,84	61
4	1,25	3,46	1,05	39
5	1,50	4,98	1,26	27



Lux and Lumen are two different ways to meassure the flow of light. Lumen tells you the "Quantity" of light. Lux is a value depending on an area. One Lumen is the light value of one sqm at one Lux, the same on a area of one sqcm 10 000 Lux.

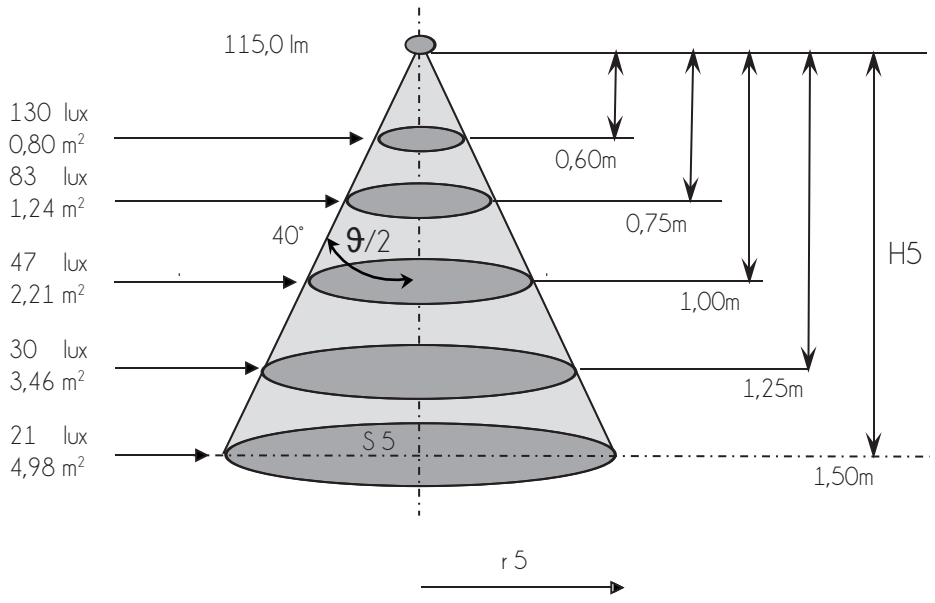
LIGHT CHARACTERISTICS GRAPH

AVERAGE LUX DEPENDING ON: DISTANCE OF THE LIGHT SOURCE-SURFACE, EMISSION ANGLE, LUMEN EMITTED

CHARACTERISTIC OF THE SOURCE OF LIGHT
Spot light with 1 LED 80 lmMIN @350 mA powered at 700 mA; 3000°K

Lumen emitted by the light source	Emitted angle s.l.	Lens efficiency
I [lm]	ϑ/2 [°]	
115,0	40,0	0,90

AVERAGE LUX (H, lm, J)				
	Distance from surface	Lighted surface		Average Lux L (H, lm, J)
N°	H (1,5) [m]	S (1,5) [m²]	r (1,5) [m]	L [lux]
1	0,60	0,80	0,50	130
2	0,75	1,24	0,63	83
3	1,00	2,21	0,84	47
4	1,25	3,46	1,05	30
5	1,50	4,98	1,26	21



Lux and Lumen are two different ways to meassure the flow of light. Lumen tells you the "Quantity" of light. Lux is a value depending on an area. One Lumen is the light value of one sqm at one Lux, the same on a area of one sqcm 10 000 Lux.

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SPOT LIGHT ∅30

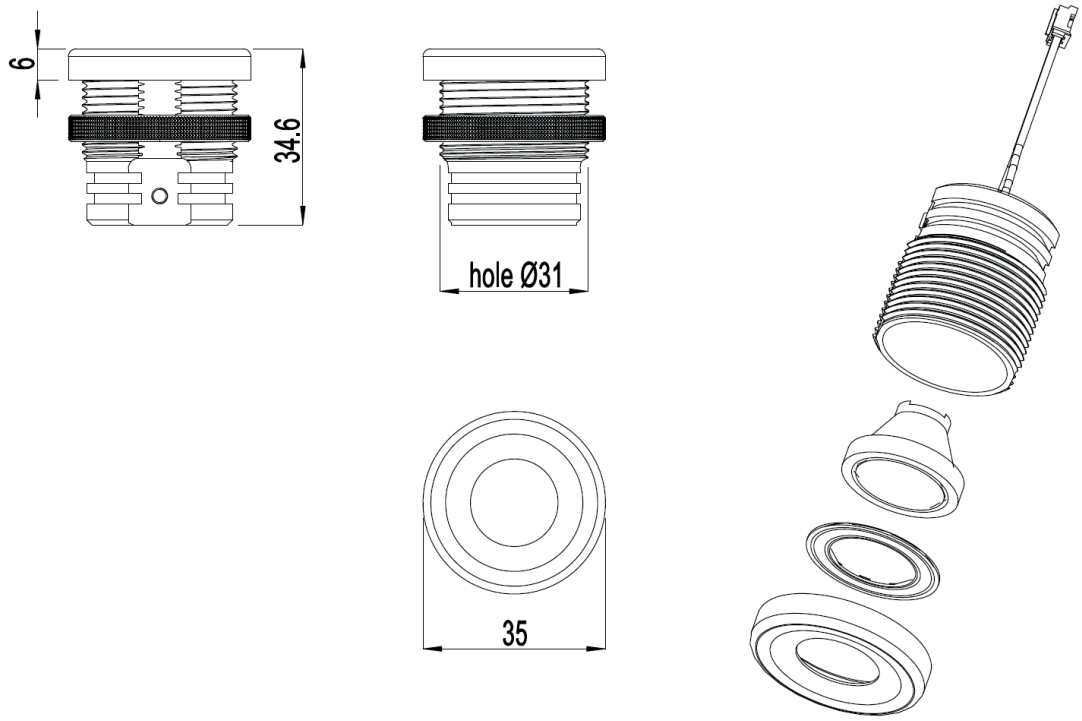
DOT SERIES LAMPS

Lamp with a LED lens made in IP54 or IP65 versions.

The main characteristic of this product is the possibility to decide the angle of the light, choosing between various types of lenses.

The total absence of the emission of UV rays and thanks to the aluminium heat-sink a high level of heat dissipation is guaranteed. External rings in different colours and finishes are available.

DOT SERIES - VERSION E



VERSION E - screw clamping

THROUGH HOLE ∅ 30,5

This particular lamp uses screw fixing system with milled washer. The maximum thickness of the panel that the system is able to clamp is 13mm

PROPERTIES

Uses a LED lens. Easy screw fixing system using milled washer. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficient heat elimination. Free end wire connection with 35 cm standard length. Ring with external finish available in different colours. Standard protection grade IP54. Protection grade IP65 supplied on request (with O-Ring). Total absence of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

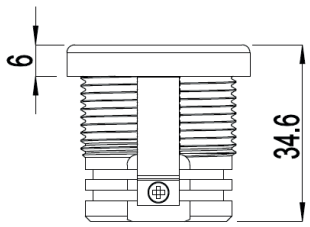
APPLICATION

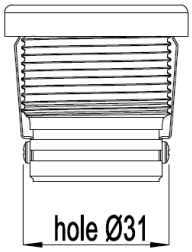
On panels with thinkness under 13mm

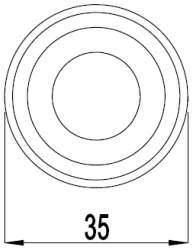
NOTES

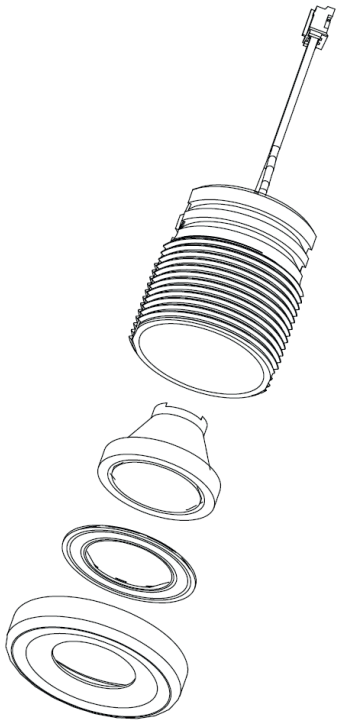
For correct usage of led lamp for your application please contact the Comelit technical staff

DOT SERIES - VERSION B
TAPE SPRING









VERSION B - tape spring for metallic panels

THROUGH HOLE ∅ 30,5 and ANTIROTATION

Tape spring guarantees hold and antirotation on metallic panel applications thickness up to 2mm

PROPERTIES

Uses a LED lens. Easy fixing with tape spring. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficient heat elimination. Free wire connection with 35 cm standard length. Ring with external finish available in different colours. Standard protection grade IP54. Protection grade IP65 supplied on request (with O-Ring). Total absecnce of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

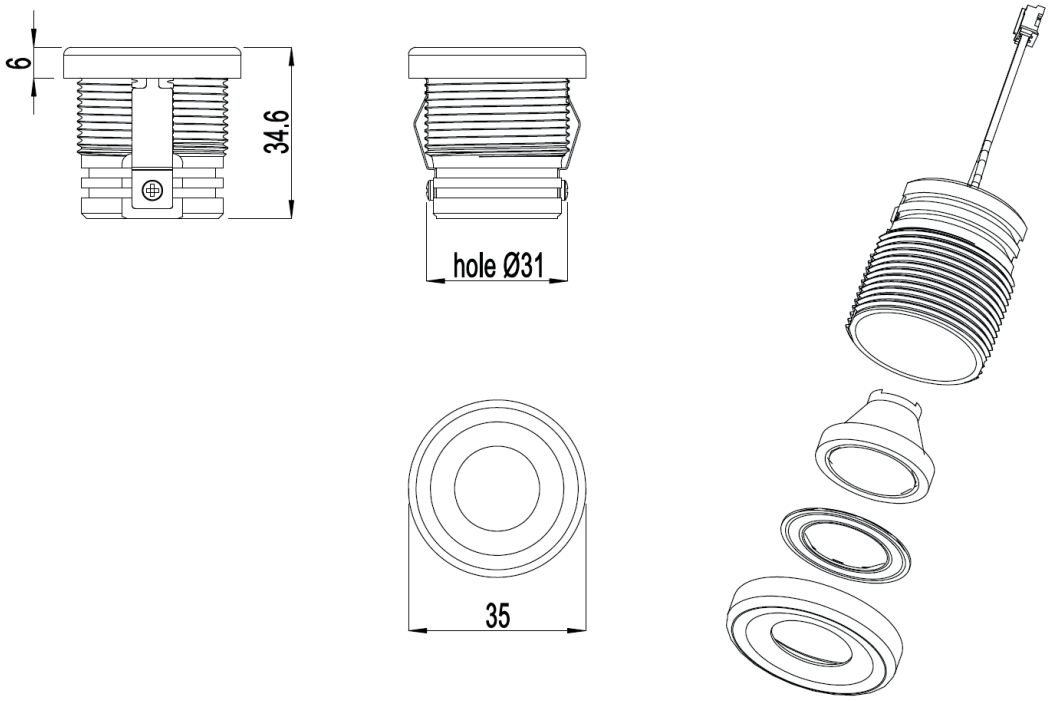
APPLICATION

On all sheet steel panels up to a thickness of 2mm

NOTES

For correct usage of led lamp for your application please contact Comelit technical staff

DOT SERIES - VERSION C
TAPE SPRING



VERSION C - tape spring with high thickness

THROUGH HOLE ∅30,5 AND DEAD HOLE H>29MM

Tape spring guarantees hold on applications with min. thickness 13mm panels with through hole. In case of dead holes the depth of the hole must be at least 29mm

PROPERTIES

Uses a LED lens. Easy fixing system with tape spring. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficient heat elimination. Free wire connection with 35 cm standard lenght. Ring with external finish available in different colours. Standard protection grade IP54. Protection grade IP65 supplied on request (with O-Ring). Total absence of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

APPLICATION

On panels with thickness above 13mm

NOTES

For correct usage of led lamp for your application please contact the Comelit technical staff

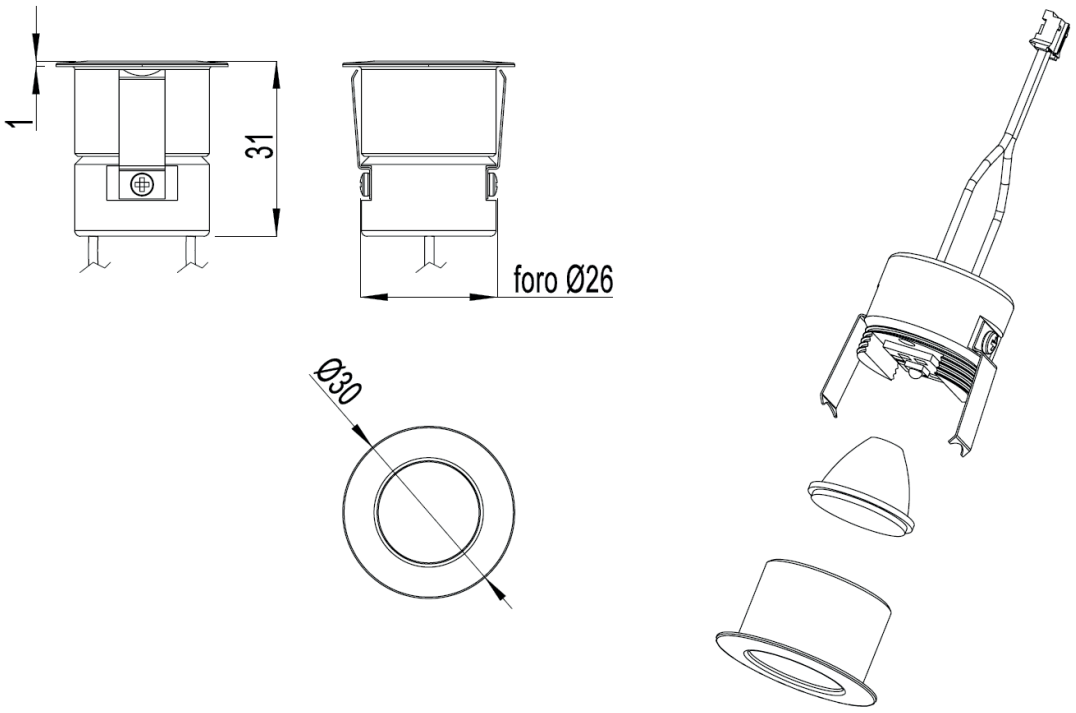
COMELIT

SPOT LIGHT ∅25

MINIDOT SERIES LAMP

Lamps with LED lens made in only IP54 version, even on this product it is possible to decide the angle of the light, choosing between various types of lenses.

The total absence of the emission of UV rays is guaranteed. External rings in different colours and finishes are available.



VERSION B - tape spring for metallic panels

THROUGH HOLE ∅26 AND ANTIROTATION

Tape spring guarantees hold and antirotation on metallic panel applications thickness up to 2mm

PROPERTIES

Uses a Led lens. Easy fixing system with tape spring. Led high luminosity technology, long life and available in different colours. Heat sink in aluminium studied for efficient heat elimination. Free wire connection with 35 cm standard length. Ring with external finish available in different colours. Extremely small front thickness of the external ring 1 mm. Standard protection grade IP54. Total absence of UV rays emission. Power supply with constant current (FEMTO LED COMELIT)

APPLICATION

On all sheet steel panels up to a thickness of 2mm

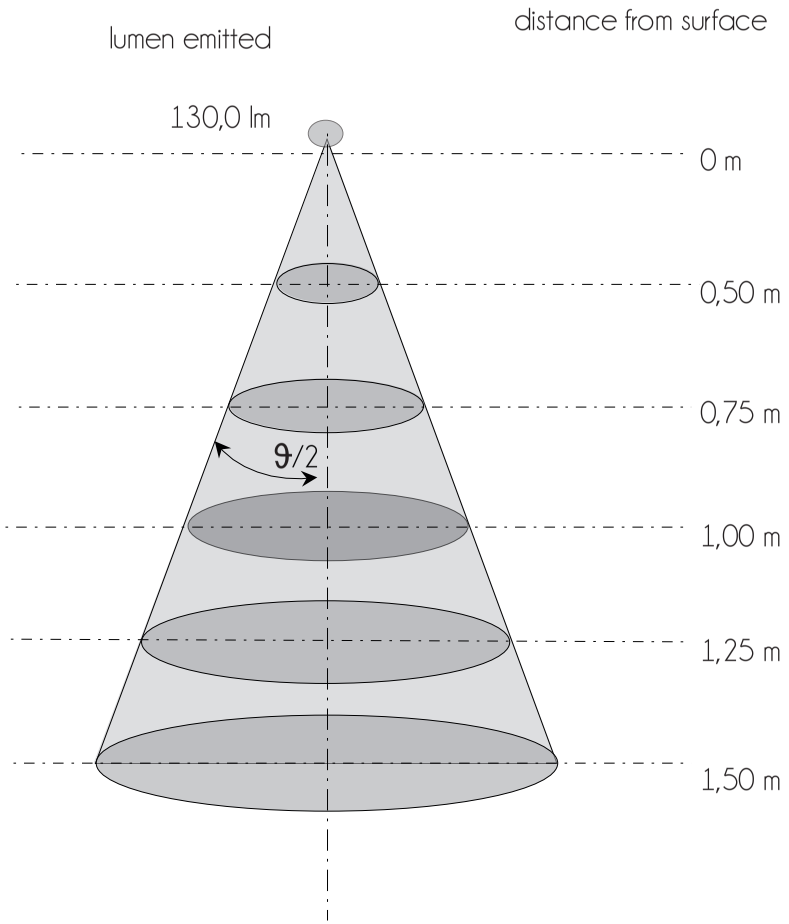
NOTES

For correct usage of led lamp for your application please contact the Comelit technical staff

AVERAGE LUX VARIES ACCORDING TO: emitted lumeni, distance between luminous source-surface, emission angle and lens efficiency

LED LAMP 6000°K; 90° APERTURE ANGLE

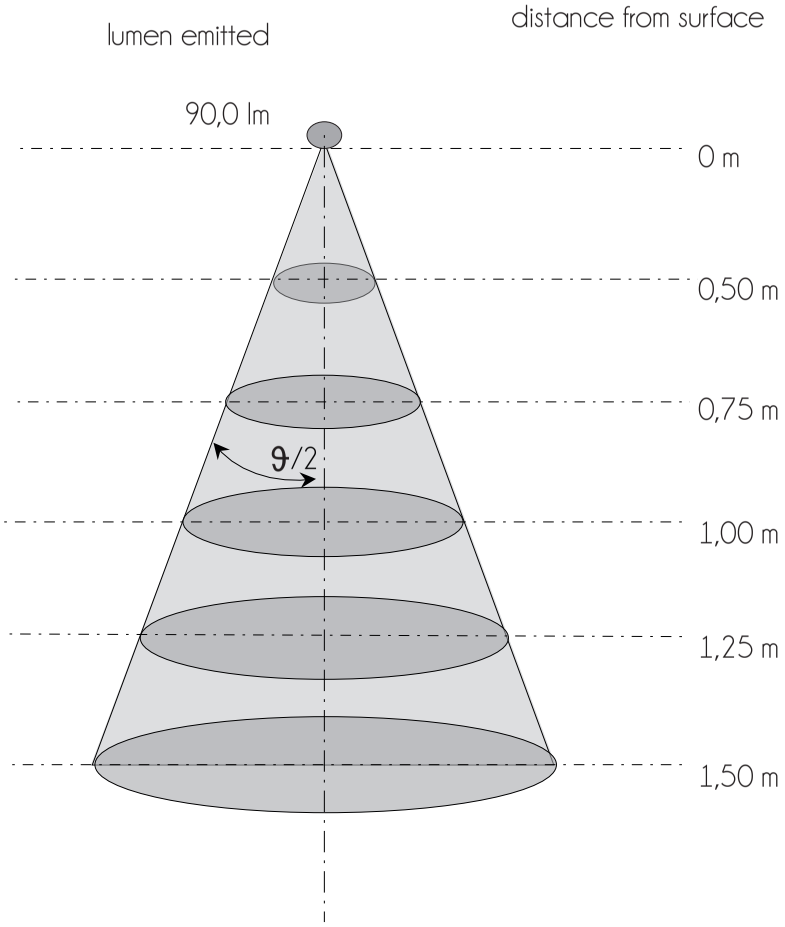
5	4	3	2	1
212 lux 0,55 m^2	447 lux 0,26 m^2	1125 lux 0,10 m^2	3031 lux 0,04 m^2	8595 lux 0,01 m^2
94 lux 1,24 m^2	199 lux 0,59 m^2	500 lux 0,23 m^2	1347 lux 0,09 m^2	3820 lux 0,03 m^2
53 lux 2,21 m^2	112 lux 1,05 m^2	281 lux 0,42 m^2	758 lux 0,15 m^2	2149 lux 0,05 m^2
34 lux 3,46 m^2	72 lux 1,64 m^2	180 lux 0,65 m^2	485 lux 0,24 m^2	1375 lux 0,09 m^2
24 lux 4,98 m^2	50 lux 2,36 m^2	125 lux 0,94 m^2	337 lux 0,35 m^2	995 lux 0,12 m^2
ϑ 80°	ϑ 60°	ϑ 40°	ϑ 25°	ϑ 15°



AVERAGE LUX VARIES ACCORDING TO: emitted lumeni, distance between luminous source-surface, emission angle and lens efficiency

LED LAMP 3000°K; 90° APERTURE ANGLE

5	4	3	2	1
146 lux 0,55 m^2	309 lux 0,26 m^2	779 lux 0,10 m^2	2098 lux 0,04 m^2	5950 lux 0,01 m^2
65 lux 1,24 m^2	138 lux 0,59 m^2	346 lux 0,23 m^2	933 lux 0,09 m^2	2645 lux 0,03 m^2
37 lux 2,21 m^2	77 lux 1,05 m^2	195 lux 0,42 m^2	525 lux 0,15 m^2	1488 lux 0,05 m^2
23 lux 3,46 m^2	50 lux 1,64 m^2	125 lux 0,65 m^2	336 lux 0,24 m^2	952 lux 0,09 m^2
16 lux 4,98 m^2	34 lux 2,36 m^2	87 lux 0,94 m^2	233 lux 0,35 m^2	661 lux 0,12 m^2
ϑ 80°	ϑ 60°	ϑ 40°	ϑ 25°	ϑ 15°



LIGHT CHARACTERISTICS GRAPH

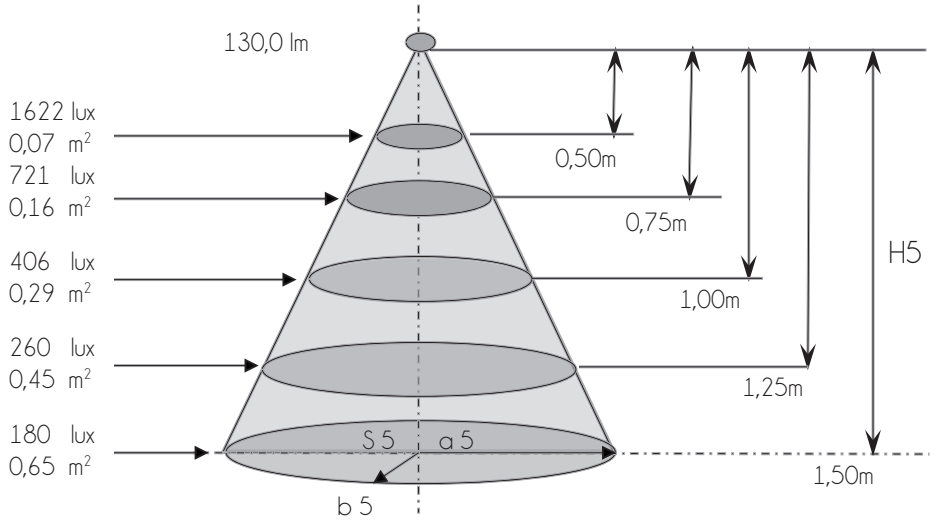
AVERAGE LUX VALUES DEPENDING ON: DISTANCE OF THE SOURCE OF LIGHT TO THE LIGHTING AREA, THE ANGLE OF EMISSION AND THE NUMBER OF LUMEN EMITTED

CHARACTERISTICS OF THE SOURCE OF LIGHT
Spot light 1 LED 80 lmMIN @350 mA powered at 700 mA; 6000°K

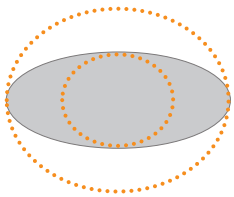
LUMEN EMITTED BY THE LIGHT SOURCE	EMITTED ANGLE s.l.*		OVAL LENS EFFICIENCY
I [lm]	ϑ/2 [°]	ϑ/2 [°]	
130,0	22,5	12,5	0,9

AVERAGE LUX (H, lm, θ)					
	Distance from surface	Lighted Surface			Average Lux L (H, lm, ϑ)
N°	H (1,5) [m]	S (1,5) [m²]	a (1,5) [m]	b (1,5) [m]	L [lux]
1	0,50	0,07	0,21	0,11	1622
2	0,75	0,16	0,31	0,17	721
3	1,00	0,29	0,41	0,22	406
4	1,25	0,45	0,52	0,28	260
5	1,50	0,65	0,62	0,33	180

* in case of the oval lens the emission angle considers two values ϑ/2 e ß/2



Projection on a flat surface



ϑ/2 = 22,5° ß/2 = 12,5°

Lux and Lumen are two different ways to meassure the flow of light. Lumen tells you the "Quantity" of light. Lux is a value depending on an area. One Lumen is the light value of one sqm at one Lux, the same on a area of one sqcm 10 000 Lux.

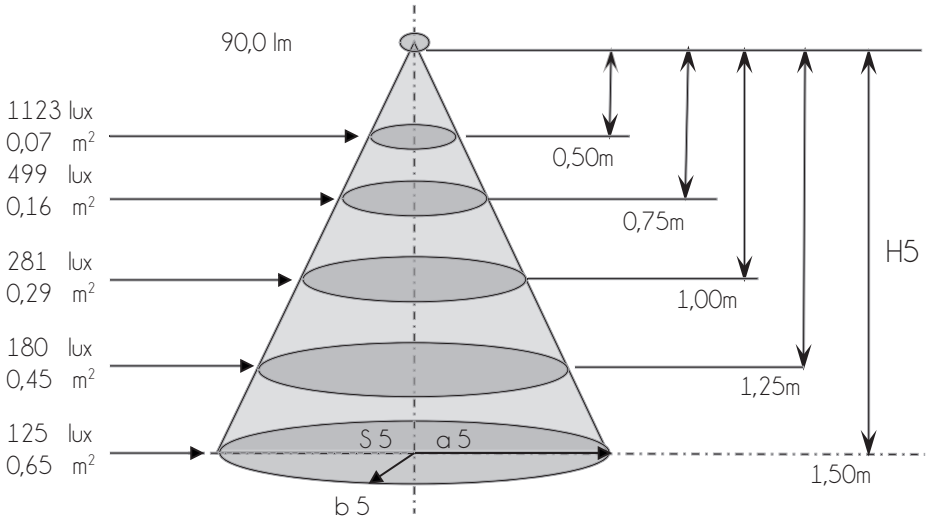
AVERAGE LUX VALUES DEPENDING ON: DISTANCE OF THE SOURCE OF LIGHT TO THE LIGHTING AREA, THE ANGLE OF EMISSION AND THE NUMBER OF LUMEN EMITTED

CHARACTERISTICS OF THE SOURCE OF LIGHT
Spot light 1 LED 67 lmMIN @350 mA powered at 700 mA; 3000°K

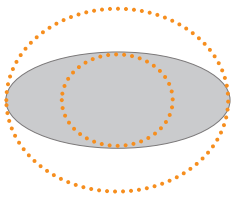
LUMEN EMITTED BY THE LIGHT SOURCE	EMITTED ANGLE s.l.*		OVAL LENS EFFICIENCY
I [lm]	ϑ/2 [°]	ϑ/2 [°]	
130,0	22,5	12,5	0,9

AVERAGE LUX (H, lm, θ)					
	Distance from surface	Lighted Surface			Average Lux L (H, lm, ϑ)
N°	H (1,5) [m]	S (1,5) [m²]	a (1,5) [m]	b (1,5) [m]	L [lux]
1	0,50	0,07	0,21	0,11	1123
2	0,75	0,16	0,31	0,17	499
3	1,00	0,29	0,41	0,22	281
4	1,25	0,45	0,52	0,28	180
5	1,50	0,65	0,62	0,33	125

* in case of the oval lens the emission angle considers two values ϑ/2 e ß/2



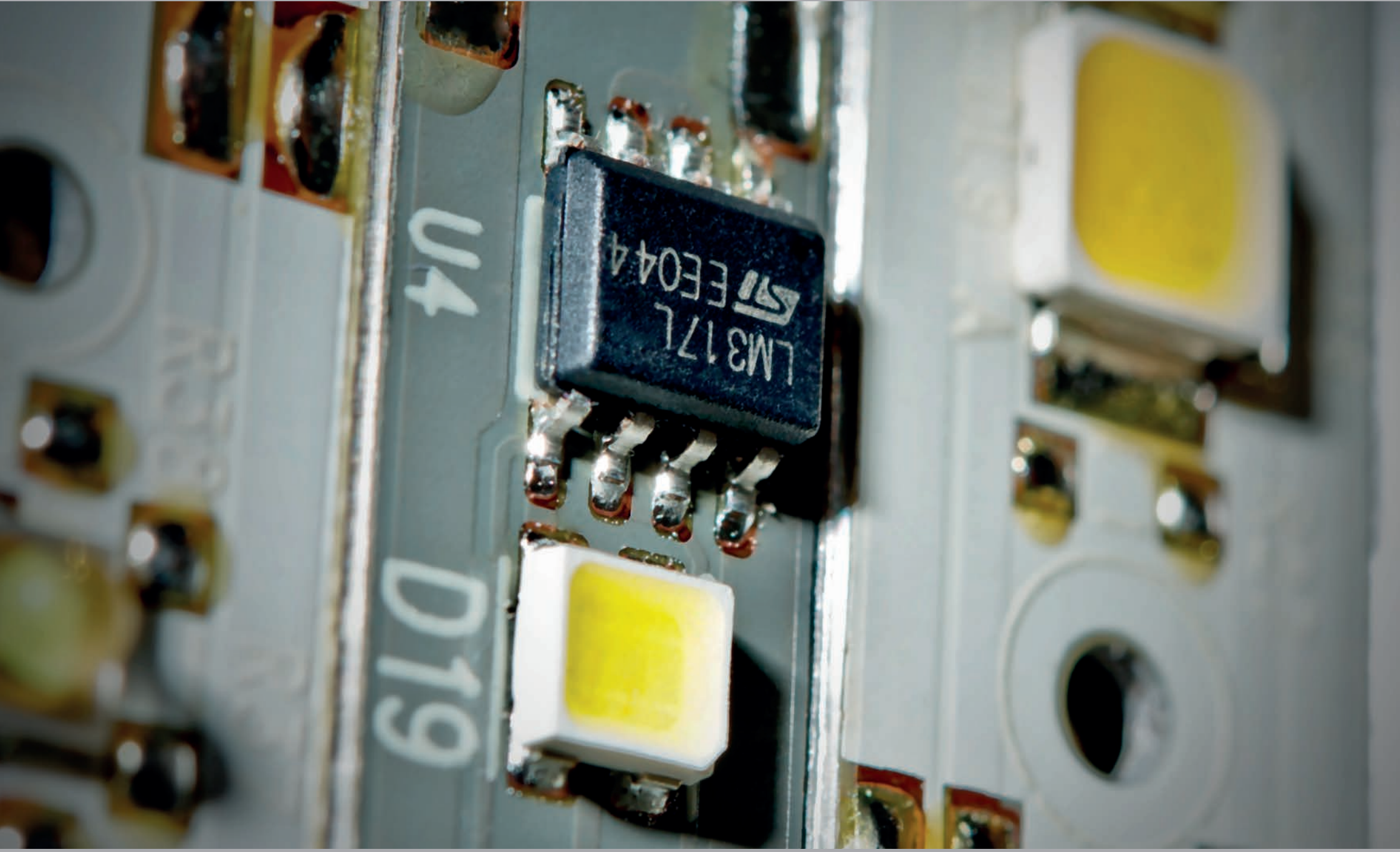
Projection on a flat surface



ϑ/2 = 22,5° ß/2 = 12,5°

Lux and Lumen are two different ways to meassure the flow of light. Lumen tells you the "Quantity" of light. Lux is a value depending on an area. One Lumen is the light value of one sqm at one Lux, the same on a area of one sqcm 10 000 Lux.

COMELIT



COMELIT

PCB LED

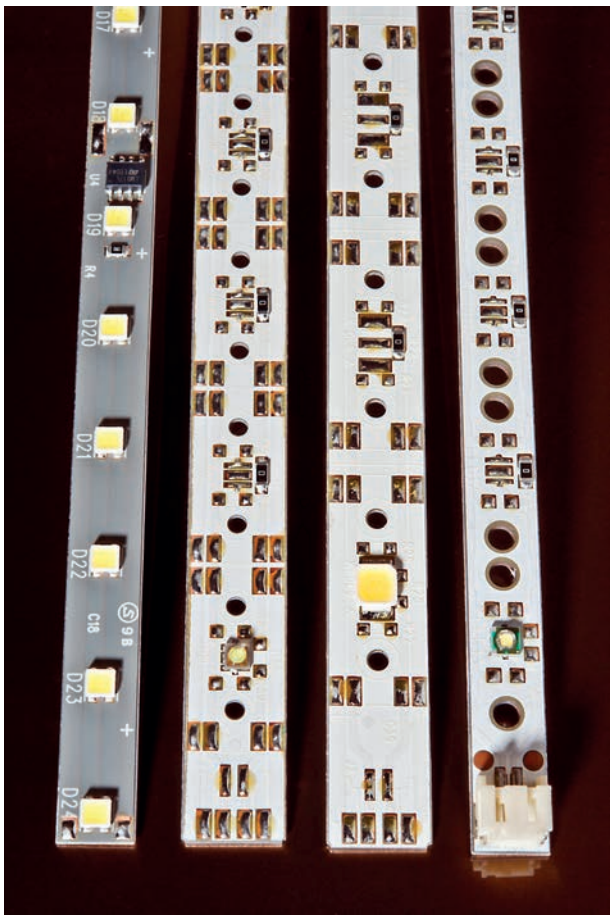
PCB LED

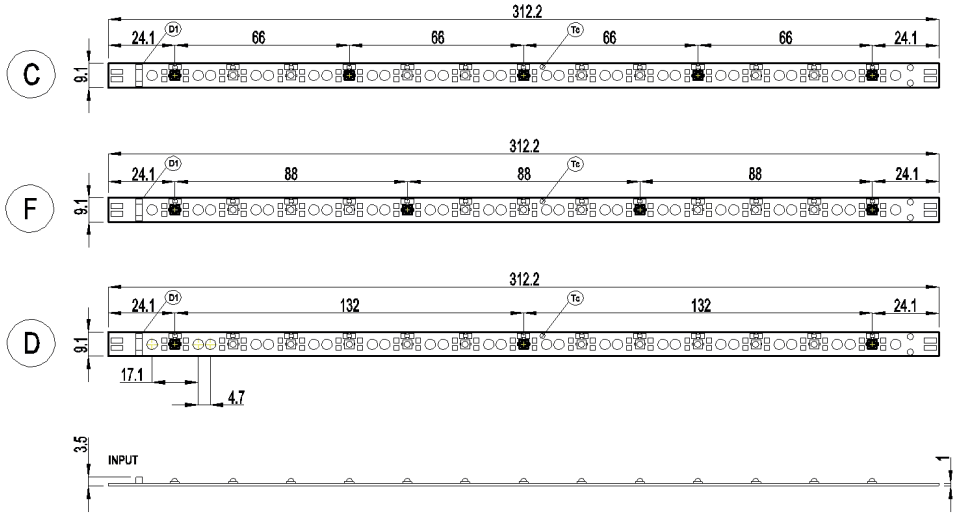
A vast array of LED strips available in continuous evolution and extension.

For every application, Comelit chooses the LED with the best performance for the purpose.

The choice is made identifying the right LED to be used, considering the application and the working conditions and of the economic objective to be reached.

The thing that remains unchanged for all Comelit LED strips is the care in the design and checks in the manufacturing processes.





HIGH EFFICIENCY [HE] -700 mA				
SERIES	LED N°	TEMP. COLOUR °K	POWER [W]	LUMEN MIN
MPS C	5	3000	11	580
MPS F	4	3000	9	470
MPS D	3	3000	6,6	350
MPS C	5	4000	11	680
MPS F	4	4000	9	540
MPS D	3	4000	6,6	410
MPS C	5	6000	11	780
MPS F	4	6000	9	620
MPS D	3	6000	6,6	470

PROPERTIES

Ambient Temperature 0 ÷ 50° C. (*) = Power through current generator [SE] 350mA [HE] 700mA. All values measured at ta=25°C. Life projection of the Led atTc=80°C > 30 000 hours. Do not exceed the Tc temperature (if the maximum temperature is exceeded, the life of the module is greatly reduced). High power LED. Dimmable by pulse with modulation (PWM). Broad 90° light distribution for uniform illumination. Polarity reverse protection. Connection method: connectors (see drawing). Wiring of extensions with special connectors supplied by Comelit. Connection to the heatsink by screws or adhesive conductive tapes.

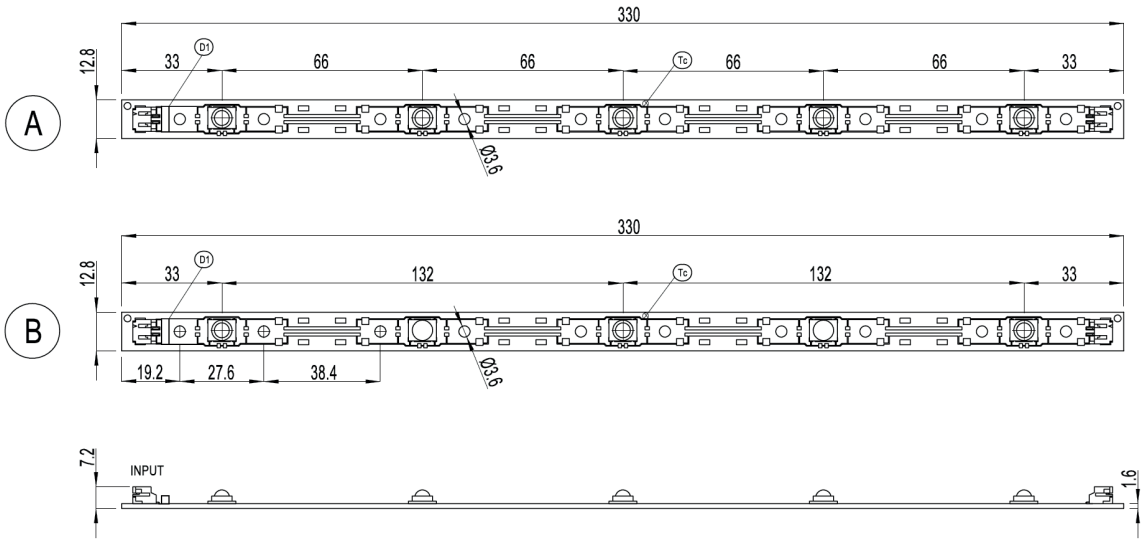
APPLICATIONS

Safety lighting, general lighting, effect lighting and shelf lighting

NOTES

Please contact the technical offices of Comelit spa if you have a question about the correct use of the Metal Core PCB Strip

MPS Metal Core SERIES PCB STRIP [CC5]



HIGH EFFICIENCY [HE] -700 mA				
SERIES	LED N°	TEMP. COLOUR °K	POWER [W]	LUMEN MIN
MPS A	5	3000	12,5	500
MPS B	3	3000	7,5	300
MPS A	5	6000	12,5	700
MPS B	3	6000	7,5	420

PROPERTIES

Ambient Temperature 0 ÷ 50° C. (*) = Power through current generator [SE] 350mA [HE] 700mA. All values measured at ta=25°C. Life projection of the Led atTc=80°C > 30 000 hours. Do not exceed the Tc temperature (if the maximum temperature is exceeded, the life of the module is greatly reduced). High power LED. Dimmable by pulse with modulation (PWM). Broad 90° light distribution for uniform illumination. Polarity reverse protection. Connection method: connectors (see drawing). Wiring of extensions with special connectors supplied by Comelit. Connection to the heatsink by screws or adhesive conductive tapes.

APPLICATIONS

Safety lighting, general lighting, effect lighting and shelf lighting

NOTES

Please contact the technical offices of Comelit spa if you have a question about the correct use of the Metal Core PCB Strip

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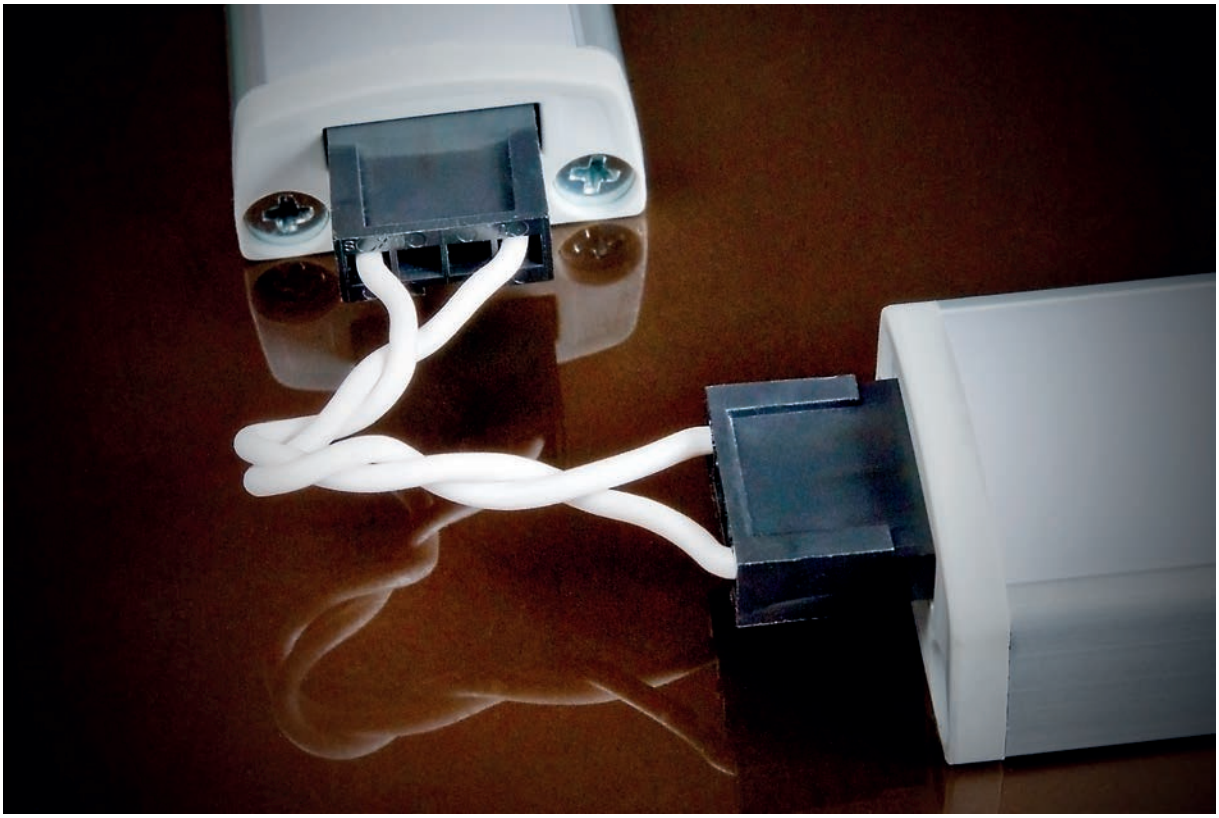
Detail of bar connection system for assembling in series



Detail of connection for corners

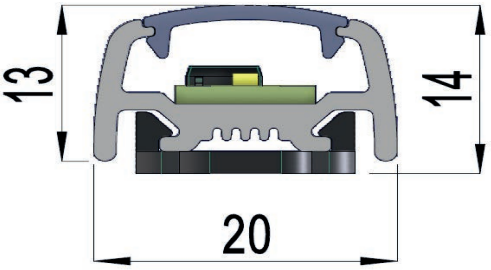
Profile fixing through brackets screwed on the wall

Connection example between profiles through direct cable
(see standard connection)

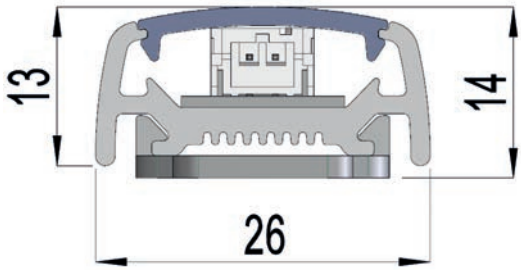
Connection example between profiles through MULTIPLUG [S2]
(see standard connection)

Beyond different kind of LEDs, it is possible to choose between
transparent and opalescent screen

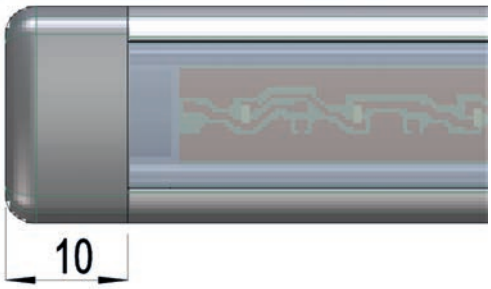
EXTRUDED PROFILE H=20mm H=26mm



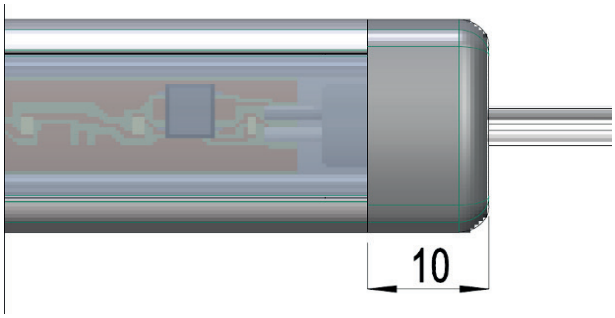
extruded profile H=20
for PCB FLEX



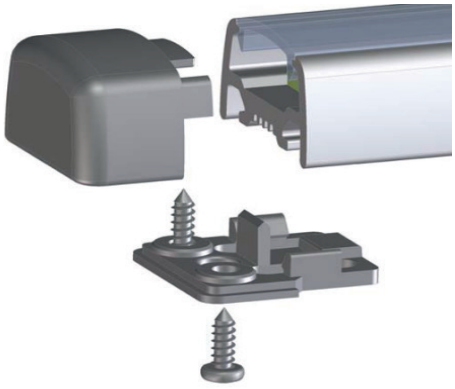
extruded profile H=26
for PCB STRIP and/or PCB FLEX

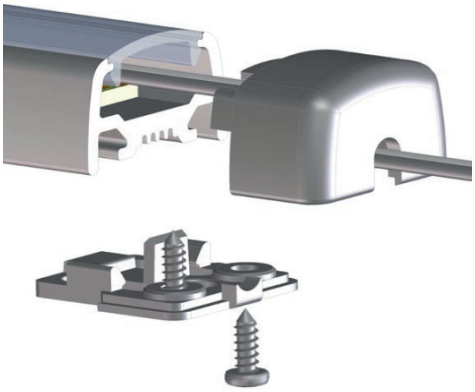


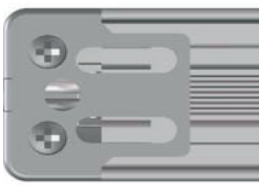
closed end piece
for end of profile H20/H26



end piece with through hole for cable for power supply and/or extensions profiles H20/H26







blocking plaque
closed end piece
2x screws ∅ 2.2x6.5mm

fixing plaque
min n°2 every profile
hole for screw ∅ 3,5

blocking plaque
end piece with through hole for cable
2x screws ∅ 2.2x6.5mm

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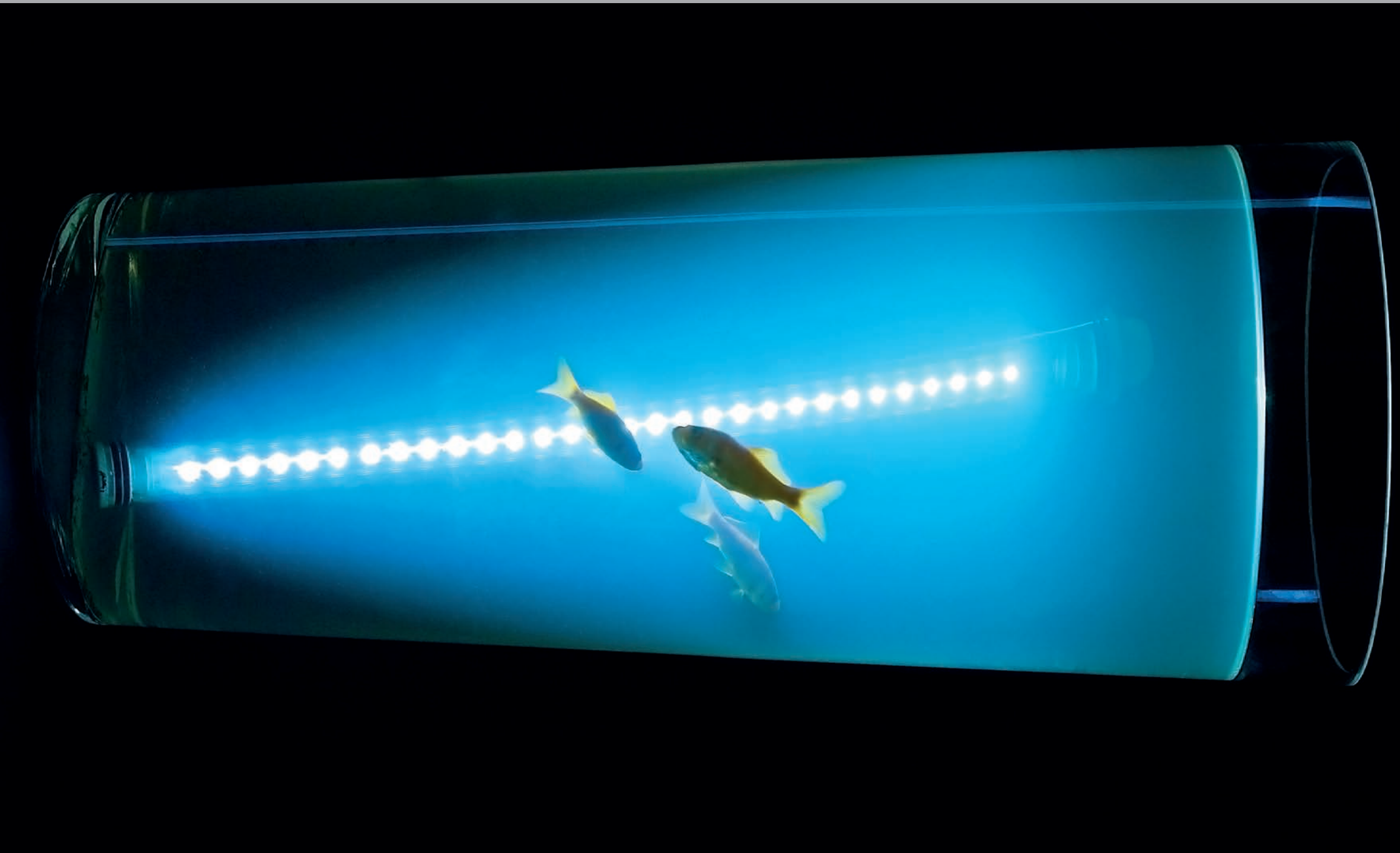
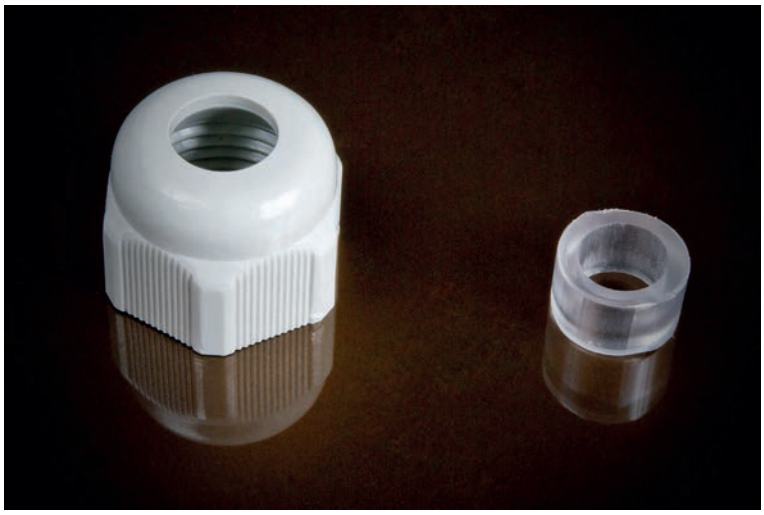
ALUMINIUM PROFILES / TUBES



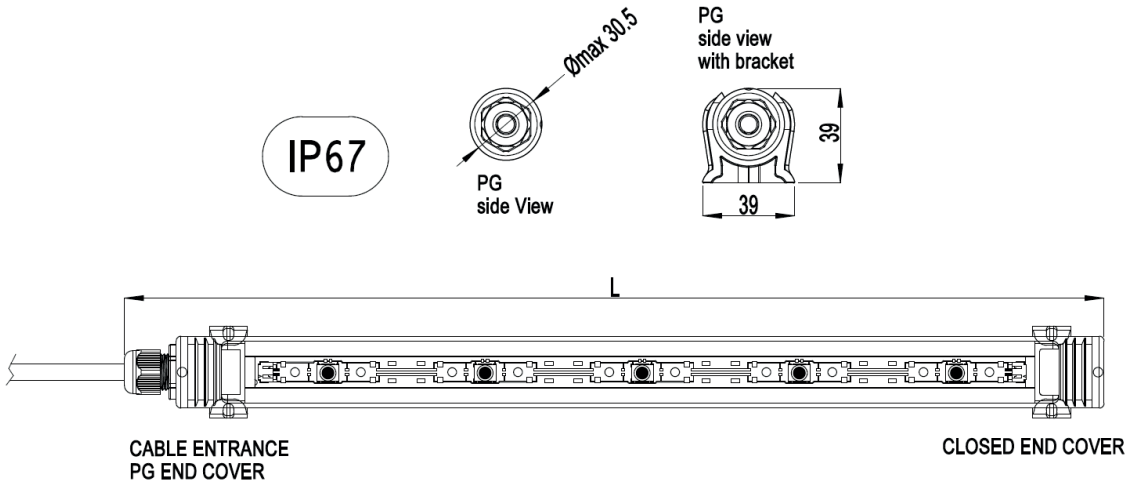


Cable-holding nut with washer

Water-tight end cover with o-ring

Fixing brackets

IP67 LED TUBES



Inside the polycarbonate tube an aluminium bar (H=26) is installed on which are applied the LEDs. Base on the requirements of the user, it is possible to install any type of LED obtaining in this way a highly functional product and extremely flexible for diverse applications. The length of the tube "L" varies based on the number and type of LED to be used. Its design concept allows the user to direct the light even after installation, the possibility to rotate by 360° gives the possibility to obtain the best lighting for the application. For these characteristics we described above, this product is highly recommended for all installations in open air and in environments where there is the presence of dust and water vapour (eg. warehouses, industrial kitchens, etc.). To the end of presenting a product of a high quality standard, Comelit has certified its grade of IP67 protection (IEC 60529).

CHARACTERISTICS

Tube in transparent polycarbonate.
Input cable with double sheathing in PVC or neoprene for outdoor use.
Input end cover in grey plastic with PG for holding the cable.
Closing end cover in grey plastic.
Possibility for connecting further tubes using two input end covers with PG.
Standard grade of protection IP67.

APPLICATIONS

Outdoors, wet or dusty environments, presence of chemical agents etc.

NOTES

Please contact Comelit's technical department for the correct use of our LED tube in your application

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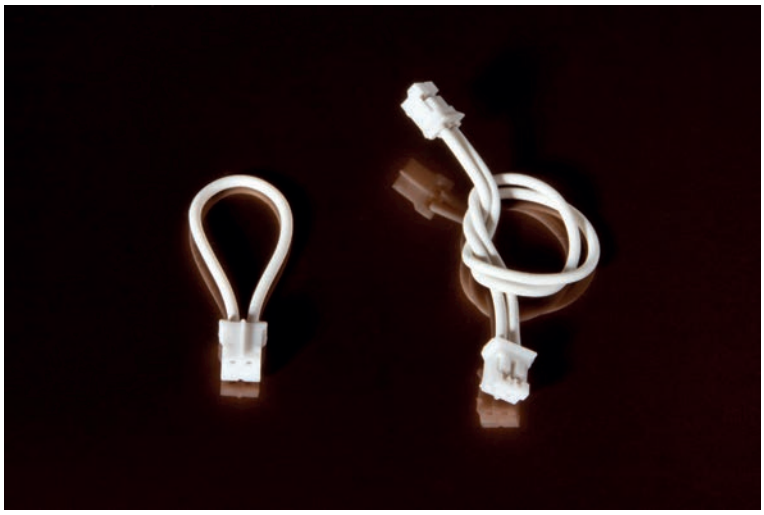
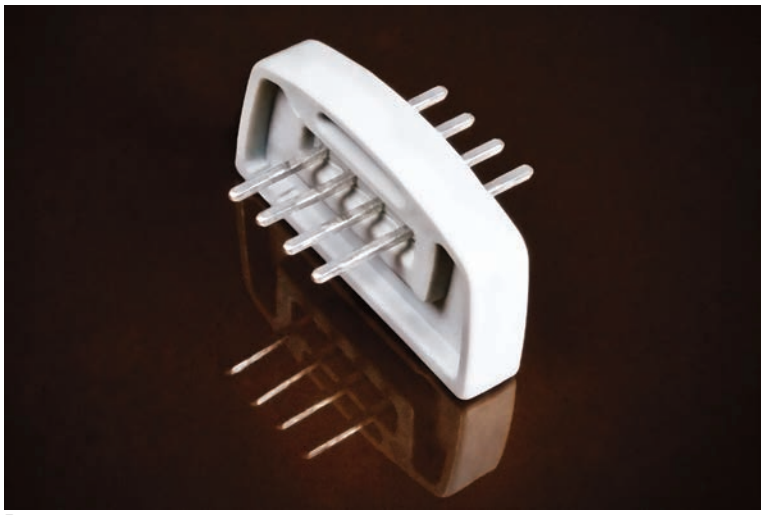
STANDARD CONNECTORS



Connectors

Multi-plug connectors



Bar connection system

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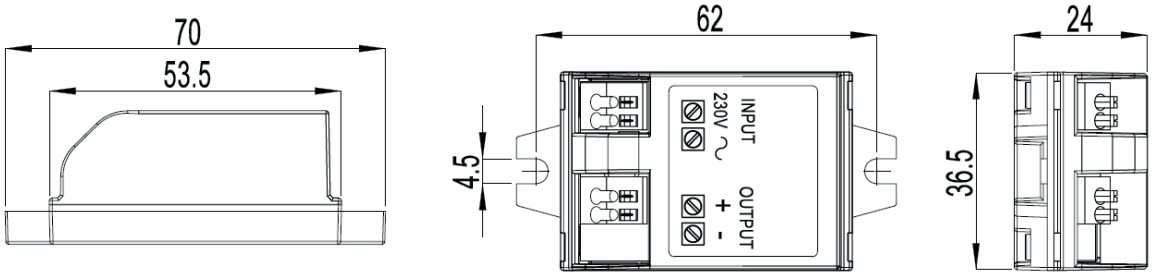
CURRENT GENERATORS FOR LED

CURRENT GENERATOR
n° 1 LED max (700mA) - Model ALD070045E



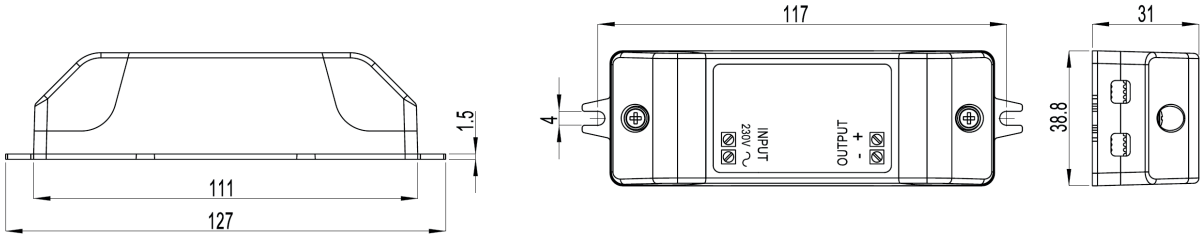
Case
Polymer PA6.6 -V0
Standard colour WHITE

Input / Output
Terminal block 2 poles
Wire sec. 0,5 ÷ 1,5 mm ²

INPUT SPECIFICATIONS	
Voltage	230 (Vac)
Frequency	50/60 (Hz)
Current input	70 (mA)
Peak current	< 30 (A) @ 25 °C
Protection	fuse track and wire resistor
OUTPUT SPECIFICATIONS	
Voltage max	4,5 (Vdc) ± 5%
LED power supply	0,7 (A)
Power	3,15 (W)
Input variation	< 0,5%
Load variation	< 4%
Ripple	< 150 (mV) @ 20 mHz
Protection	short circuit
GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	120 (KHz)
Hold-up-time	> 40 (msec) @ 90 Vac 50 Hz
Dielectric strenght I/O	3750 Vac
Leakage current	< 0,2 (mA)
MTBF	50000 (h)
REFERENCE STANDARDS	
Safety	EN 61347-1
EMC	EN 61347-2-13
Emission immunity	EN 61547 ; EN 55015
NOTES	

SYMBOLS

CURRENT GENERATOR
from 2 to 6 LED max (700mA) - Model ALD070250E



Case

Polymer PA6 -V2
Standard colour
GREY RAL 7035

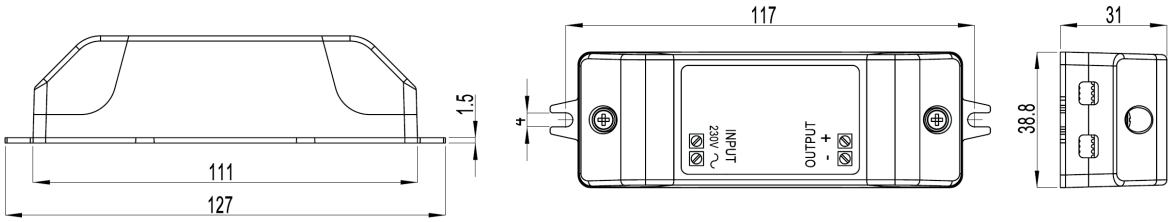
Input / Output

Terminal block 2 poles
Wire sec. 0,5 ÷ 1,5 mm ²

INPUT SPECIFICATIONS	
Voltage	230 (Vac)
Frequency	50/60 (Hz)
Current input	150 (mA)
Peak current	< 30 (A) @ 25 °C
Protection	fuse track and wire resistor
OUTPUT SPECIFICATIONS	
Voltage max	25 (Vdc) ± 5%
LED power supply	0,7 (A)
Power	17,5 (W)
Input variation	< 0,5%
Load variation	< 4%
Ripple	< 150 (mV) @ 20 mHz
Protection	short circuit
GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	120 (KHz)
Hold-up-time	> 40 (msec) @ 90 Vac 50 Hz
Dielectric strenght I/O	3750 Vac
Leakage current	< 0,2 (mA)
MTBF	100000 (h)
REFERENCE STANDARDS	
Safety	EN 61347-1
EMC	EN 61347-2-13
Emission immunity	EN 61547 ; EN 55015
NOTES	
for input / output cable it is advisable in order to guarantee the functioning of the strain relief to use: H03VVH2-F 2x0,75 mm	

SYMBOLS

CURRENT GENERATOR
from 2 to 6 LED max (700mA) - Model ALD070250A



Case
Polymer PA6 -V2
standard colour
GREY RAL 7035

Input / Output
Terminal block 2 poles
wire sec. 0,5 ÷ 1,5

INPUT SPECIFICATIONS	
Voltage	120 (Vac)
Frequency	50/60 (Hz)
Current input	300 (mA)
Peak current	< 30 (A) @ 25 °C
Protection	fuse track and wire resistor

OUTPUT SPECIFICATIONS	
Voltage max	25 (Vdc) ± 5%
LED power supply	0,7 (A)
Power	17,5 (W)
Input variation	< 0,5%
Load variation	< 4%
Ripple	< 150 (mV) @ 20 mHz
Protection	short circuit

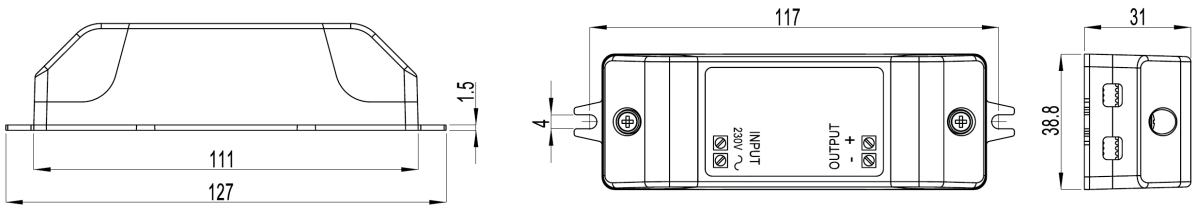
GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	120 (KHz)
Hold-up-time	> 40 (msec) @ 90 Vac 50 Hz
Dielectric strenght I/O	3750 Vac
Leakage current	< 0,2 (mA)
MTBF	100000 (h)

REFERENCE STANDARDS	
Safety	EN 61347-1
EMC	EN 61347-2-13
Emission immunity	EN 61547 ; EN 55015

NOTES
for input / output cable it is advisable in order to guarantee the functioning of the strain relief to use: H03VVH2-F 2x0,75 mm

SYMBOLS

CURRENT GENERATOR
from 2 to 9 LED max (500mA) - Model ALD050320E



Case

Polymer PA6 -V2
Standard colour
GREY RAL 7035

Input / Output

Terminal block 2 poles
wire sec. 0,5 ÷ 1,5 mm ²

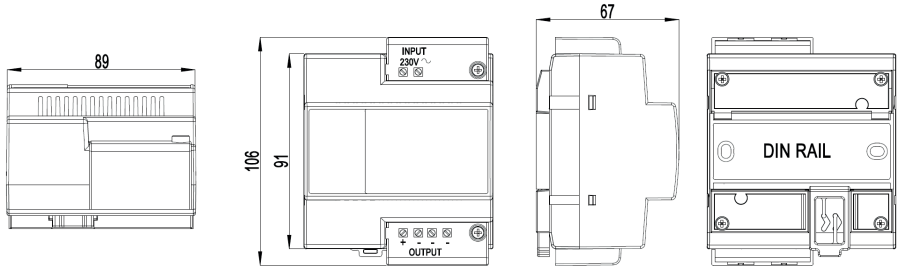
INPUT SPECIFICATIONS	
Voltage	230 (Vac)
Frequency	50/60 (Hz)
Current input	150 (mA)
Peak current	< 30 (A) @ 25 °C
Protection	fuse track and wire resistor
OUTPUT SPECIFICATIONS	
Voltage max	32 (Vdc) ± 5%
LED power supply	0,5 (A)
Power	16,0 (W)
Input variation	< 0,5%
Load variation	< 4%
Ripple	< 150 (mV) @ 20 mHz
Protection	short circuit
GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	120 (KHz)
Hold-up-time	> 40 (msec) @ 90 Vac 50 Hz
Dielectric strenght I/O	3750 Vac
Leakage current	< 0,2 (mA)
MTBF	100000 (h)
REFERENCE STANDARDS	
Safety	EN 61347-1
EMC	EN 61347-2-13
Emission immunity	EN 61547 ; EN 55015

NOTES

for input / output cable it is advisable in order to guarantee the functioning of the strain relief to use: H03VVH2-F 2x0,75 mm

SYMBOLS

CURRENT GENERATOR
from 3 to 15 LED max - Model ALS5807E



Case
Polymer PA6 -V2
standard colour
GREY RAL 7035

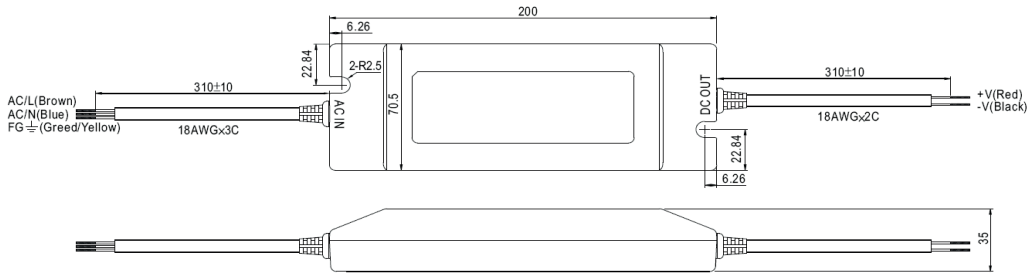
Input / Output
Terminal block 2/4 poles
wire sec. 0,5 ÷ 2,5 mm ²

INPUT SPECIFICATIONS	
Voltage	230 (Vac)
Frequency	50/60 (Hz)
Current input	400 (mA)
Peak current	< 30 (A) @ 25 °C
Protection	fuse track and wire resistor
OUTPUT SPECIFICATIONS	
Voltage max	60 (Vdc) ± 5%
LED power supply	0,7 (A)
Power	40,0 (W)
Input variation	< 0,5%
Load variation	< 4%
Ripple	< 150 (mV) @ 20 mHz
Protection	short circuit
GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	120 (KHz)
Hold-up-time	> 40 (msec) @ 90 Vac 50 Hz
Dielectric strenght I/O	3750 Vac
Leakage current	< 0,2 (mA)
MTBF	50000 (h)
REFERENCE STANDARDS	
Safety	EN 61347-1
EMC	EN 61347-2-13
Emission immunity	EN 61547 ; EN 55015
NOTES	

SYMBOLS

COMELIT

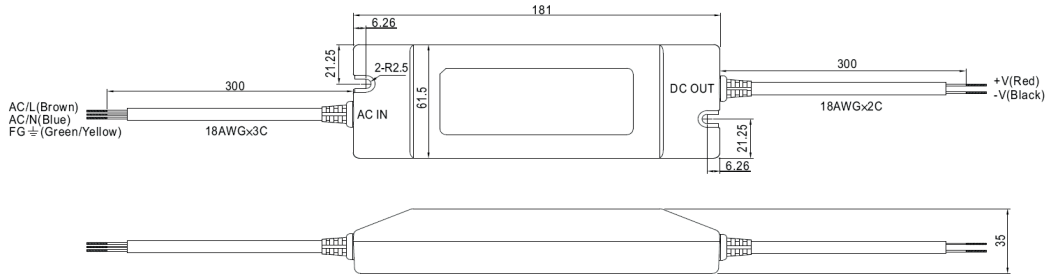
Power Supply
AC/DC 230Vac/24Vdc 96W - AC/DC 230Vac/48Vdc 96W



MODEL		PLN-100-24	PLN-100-48
OUTPUT	DC VOLTAGE	24 V	48 V
	CONSTANT CURRENT REGION	18-24 V	36-48 V
	RATED CURRENT	4 A	2 A
	RATED POWER	96 W	96 W
	RIPPLE & NOISE (Max)	150 mVp-p	200 mVp-p
	VOLTAGE ADJ RANGE (SVR1)	20,4-24 V	40,8-48 V
	CURRENT ADJ RANGE (SVR2)	3-4 A	1,5-2 A
	VOLTAGE TOLLERANCE	±3,0%	±2,0%
	LINE REGULATION	±1,0%	
	LOAD REGULATION	±2,0%	
	SETUP, RISE TIME	1200 ms, 80 ms/230VAC - 1200 ms, 80 ms/115VAC at full load	
	HOLD UP TIME (Typ.)	60 ms/230VAC 30 ms/115VAC at full load	
INPUT	VOLTAGE RANGE	90-264 vac 127-370 VDC	
	FREQUENCY RANGE	47 - 63 Hz	
	POWER FACTOR (Typ)	PF>0,95/230VAC PF>0,95/115VAC at full load PF≥0,9 AT 75 - 100% load	
	EFFICIENCY (Typ)	87%	87%
	AC CURRENT (Typ)	12V:0,8A/115VAC 0,4A/230VAC 15V:0,9A/115VAC 0,45A/230VAC 20V - 48V:1,1A/115VAC 0,55A/230VAC	
	INRUSH CURRENT (Typ)	COLD START 40A / 230VAC	
	LEAKAGE CURRENT	<0,75 mA / 240 VAC	
PROTECTION	OVER CURRENT	95-102%	
		Protection type constant current limiting recovers automatically after fault condition is removed	
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed	
	OVER VOLTAGE	27-34 V	52-64 V
		Protection type: shut down and latch off o/p voltage, re-power on to recover	
	OVER TEMPERATURE	90°C±10°C (RTH2)	
		Protection type: shut down o/p voltage, re-power on to recover	
ENVIRONMENT	WORKING TEMP	-30 +50°C (refer to output load derating curve)	
	WORKING HUMIDITY	20 - 95% RH non-condensing	
	STORAGE TEMP, HUMIDITY	-40 +80°C, 10 - 95% RH	
	TEMP COEFFICIENT	±0,03% / °C (0 - 50 °C)	
	VIBRATION	10 - 500Hz, 2G 12min/1 cycle, period for 72 min each along X, Y, Z axes	
SAFETY & EMC	SAFETY STANDARDS	UL1310 Class 2, EN61347-1, EN61347-2-13 indipendent, UL60950-1, TUV EN 60950-1, UL879 (listed in UL Sign Components Manual SAM CAN/CSA C22.2 No. 223-M91 except for 48V, IP64 approved)	
	WITHSTAND VOLTAGE	I/P-O/P:3,75KVAC I/P-FG:1,88KVAC O/P-FG 0,5KVAC	
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70%RH	
	EMI CONDUCTION & RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B	
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C (>75% load); EN61000-3-3	
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, light industry level (surge 4KV) criteria A	

F 110 M M SELV EQUIVALENT LPS (for 48V only) c US (except for 48V) IP64

Power Supply
AC/DC 230Vac/24Vdc 60W - AC/DC 230Vac/48Vdc 60W



MODEL		PLN-60-24	PLN-60-48
OUTPUT	DC VOLTAGE	24 V	48 V
	CONSTANT CURRENT REGION	16,8-24 V	33,6-48 V
	RATED CURRENT	2,5 A	1,3 A
	CURRENT RANGE	0 - 2,5 A	0 -1,3 A
	RATED POWER	60W	62,5W
	RIPPLE & NOISE (max)	2,7 Vp-p	4,6 Vp-p
	VOLTAGE ADJ. RANGE	24-26V	43,6-51,8V
		Can be adjusted by internal potential meter SVR1	
	CURRENT ADJ RANGE	3% -25% Can be adjusted by internal potential meter SVR2	
	VOLTAGE TOLERANCE	±10%	
	LINE REGULATION	±3,0%	
	LOAD REGULATION	±5,0%	
	SETUP, RISE TIME	1500 ms / 230VAC - 3000 ms / 115VAC at full load	
INPUT	VOLTAGE RANGE	90-264 vac 127-370 VDC	
	FREQUENCY RANGE	47 - 63 Hz	
	POWER FACTOR	PF≥0,9 at 75 - 100% load, 115VAC / 230VAC	
	EFFICIENCY (Typ)	86%	87%
	AC CURRENT	0,8A/115VAC - 0,4A/230VAC	
	INRUSH CURRENT (Max)	40A / 230VAC	
	LEAKAGE CURRENT	<0,75 mA / 240 VAC	
PROTECTION	OVER CURRENT	95-102%	110% (max)
		Protection type constant current limiting recovers automatically after fault condition is removed	
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed	
	OVER VOLTAGE	28-32 V	54-60 V
		Protection type: shut down o/p voltage, re-power on to recover	
	OVER TEMPERATURE	90°C±10°C (tsw1) detect on heatsink of power transitor	
		Protection type: shut down o/p voltage, recovers automatically after temperature goes down	
ENVIRONMENT	WORKING TEMP	-30 +50°C (refer to output load derating curve)	
	WORKING HUMIDITY	20 - 95% RH non-condensing	
	STORAGE TEMP, HUMIDITY	-40 +80°C, 10 - 95% RH	
	TEMP COEFFICIENT	±0,03% / °C (0 - 50 °C)	
	VIBRATION	10 - 500Hz, 2G 12min/1 cycle, period for 72 min each along X, Y, Z axes	
SAFETY & EMC	SAFETY STANDARDS	UL1310 Class 2, TUV EN 61347-1, EN 61347-2-13, CAN/CSA C22.2 No. 223-M91 except for 48V, IP64 approved)	
	WITHSTAND VOLTAGE	I/P-O/P:3,75KVAC I/P-FG:1,88KVAC O/P-FG 0,5KVAC	
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70%RH	
	EMI CONDUCTION & RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B	
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C (>75% load); EN61000-3-3	
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, light industry level (surge 4KV) criteria A	

SELV EQUIVALENT LPS (for 48V only) (except for 48V) IP64

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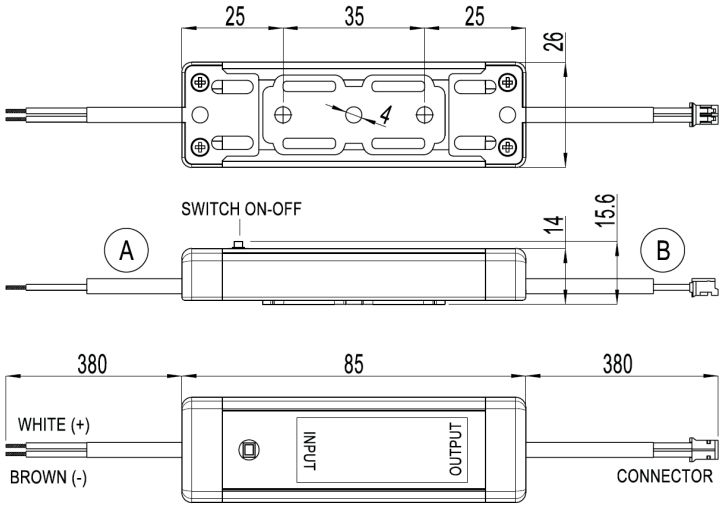
CONSTANT CURRENT LED DRIVER

CONSTANT CURRENT LED DRIVER
from 2 to 12 led max INPUT 8 ÷ 48 Vdc 700mA



Input (A)
el. cable ⌀ outside 3,6mm grey
2x sec. 0,34 mm ² Bl-MA

Output (B)
el. cable ⌀ outside 3,6mm grey
Connection Plug

Housing / partition
alluminium bar H26
opaque cover

Accessories
Mounting Plate

STEP-DOWN VOLTAGE REGULATION UNIT DESIGNED TO OPERATE AND REGULATE HIGH POWER LED
All values are based on a room temperature of 25°C

INPUT SPECIFICATIONS	
Voltage	8÷48 (Vdc)
Input filter	Capacitive
Protection	Protection diode against polarity inversion

OUTPUT SPECIFICATIONS	
Voltage	3÷44 (Vdc)
LED power supply	0,7 (A)
Max Power	30,0 (W)
LED power supply stability @ max load	± 1% max
Power LED current tolerance @ max load	± 2% max
Efficiency @ max load	96% max
Short circuit protection	Voltage regulation on nominal values

GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	150 (KHz)
MTBF	100000 (h)

NOTES

All connections of the side A must be done before electrical power is applied
It is not allowed disruppt the connection between the power supply unit and the side A
In case the system is connected to a battery, a peak current protection has to be provided

SYMBOLS

CE

CONSTANT CURRENT LED DRIVER-LIGHT SENSOR

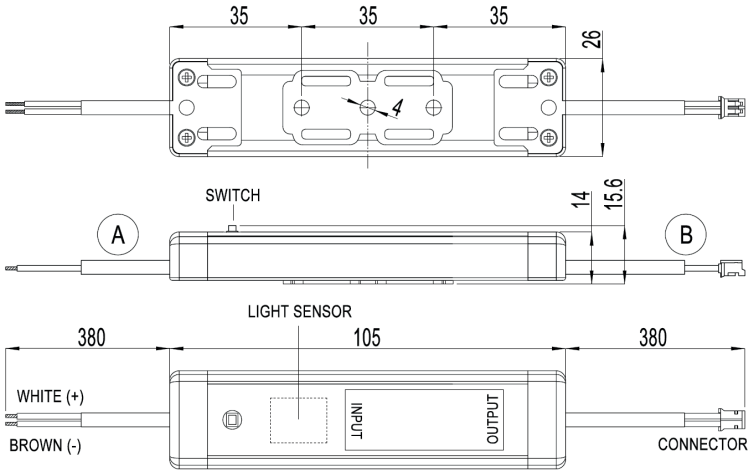
from 2 to 12 led max INPUT 8 ÷ 48Vdc 700 mA

Input (A)
el. cable ⌀ outside 3,6mm grey
2x sec. 0,34 mm ² Bl-MA

Output (B)
el. cable ⌀ outside 3,6mm grey
Connection Plug

Housing / partition
alluminium bar H26
opaque cover

Accessories
Mounting Plate



STEP-DOWN VOLTAGE REGULATION UNIT DESIGNED TO OPERATE AND REGULATE HIGH POWER LED

All values are based on a room temperature of 25°C

INPUT SPECIFICATIONS	
Voltage	8÷48 (Vdc)
Input filter	Capacitive
Protection	Protection diode against polarity inversion

OUTPUT SPECIFICATIONS	
Voltage	3÷44 (Vdc)
LED power supply	0,7 (A)
Max Power	30,0 (W)
LED power supply stability @ max load	± 1% max
Power LED current tolerance @ max load	± 2% max
Efficiency @ max load	96% max
Short circuit protection	Voltage regulation on nominal values

GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	150 (KHz)
MTBF	100000 (h)

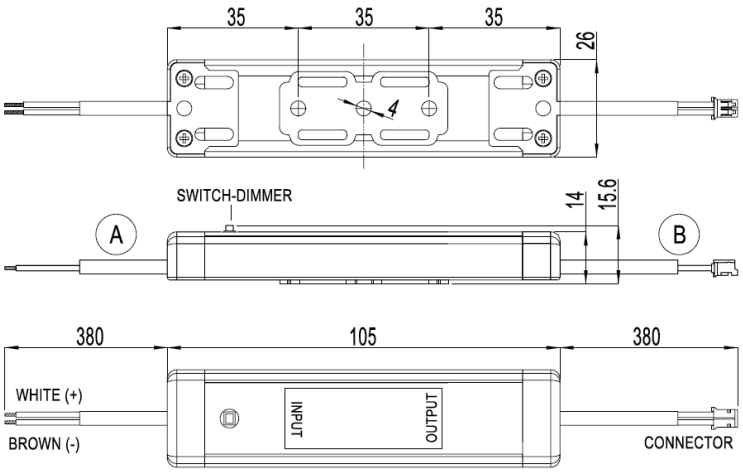
NOTES

All connections of the side A must be done before electrical power is applied
It is not allowed disruppt the connection between the power supply unit and the side A
In case the system is connected to a battery, a peak current protection has to be provided

SYMBOLS

CE

CONSTANT CURRENT LED DRIVER DIMMER
from 2 to 12 led max INPUT 8 ÷ 48 Vdc 700mA



Input (A)
el. cable ⌀outside 3,6mm grey
2x sec. 0,34 mm ² Bl-MA

Output (B)
el. cable ⌀est 3,6mm grey
Connection Plug

Housing / partition
alluminium bar H26
smoked cover

Accessories
Mounting Plate

STEP-DOWN VOLTAGE REGULATION UNIT DESIGNED TO OPERATE AND REGULATE HIGH POWER LED

All values are based on a room temperature of 25°C

INPUT SPECIFICATIONS	
Voltage	8÷48 (Vdc)
Input filter	Capacitivo
Protection	Protection diode against polarity charge

OUTPUT SPECIFICATIONS	
Voltage	3÷44 (Vdc)
LED power supply	0,7 (A)
Max Power	30,0 (W)
LED power supply stability @ max load	± 1% max
Power LED current tolerance @ max load	± 2% max
Efficiency @ max load	96% max
Short circuit protection	Voltage regulation on nominal values

GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
Switching frequency	150 (KHz)
MTBF	100000 (h)

NOTES

All connections of the side A must be done before electrical power is applied
It is not allowed to disrupt the connection between the power supply unit and the side A
In case the system is connected to a battery, a peak current protection has to be provided

SYMBOLS

CE

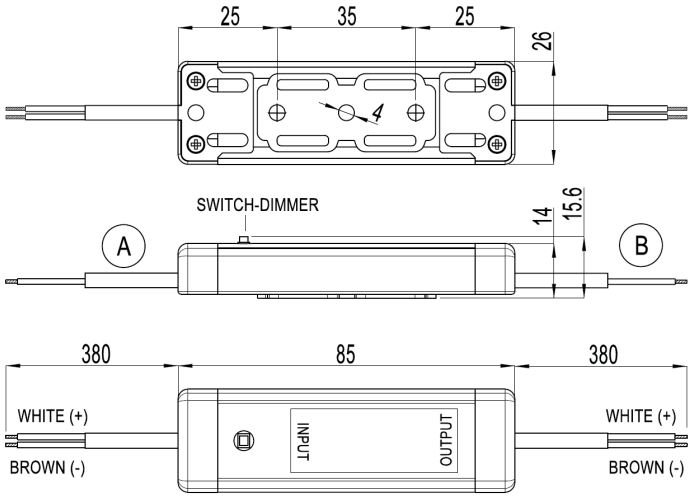
DIMMER WITH MEMORY
strip Led 12 ÷ 24 Vdc INPUT 12 ÷ 24 Vdc

Input (A)
el. cable ⌀ outside 3,6mm grey
2x sec. 0,34 mm ² Bl-MA

Output (B)
el. cable ⌀ outside 3,6mm grey
2x sec. 0,34 mm ² Bl-MA

Housing / partition
alluminium bar H26
smoked cover

Accessories
Mounting Plate



STEP-DOWN VOLTAGE REGULATION UNIT DESIGNED TO OPERATE AND REGULATE HIGH POWER LED

All values are based on a room temperature of 25°C

INPUT SPECIFICATIONS	
Voltage	12÷24 (Vdc)
Input filter	Not present
Protection	Protection diode against polarity charge

OUTPUT SPECIFICATIONS	
Voltage	12÷24 (Vdc)
Rugulation	PWM 0÷100% Duty Cycle
Max Power	2 (A)
Short circuit protection	Not present

GENERAL SPECIFICATIONS	
Operating temperature	0 ÷ 40 (°C)
Storage temperature	0 ÷ 60 (°C)
No load voltage	< 0,5 (W)
Humidity	90 (%)
MTBF	100000 (h)

NOTES

All connections of the side A must be done before electrical power is applied
It is not allowed to disrupt the connection between the power supply unit and the side A
In case the system is connected to a battery, a peak current protection has to be provided

SYMBOLS CE

NOTE

NOTE

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LED SYSTEM rev. 02

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