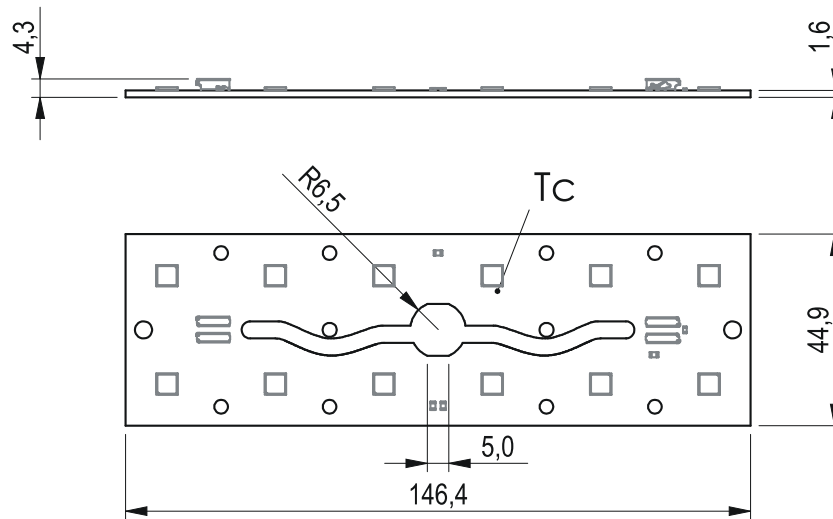


# A1545P12

## Drawing



### Technical data

Nominal forward current	350 / 700 mA
Maximum forward current	800 / 1600 mA
Ambient temperature range	-25 ... +45 °C
tc	85 °C
tp rated	65 °C
Lumen maintenance L80B10	250 000h
Lumen maintenance L70B50	>77 000h
Max. working voltage for insulation	440 V
Insulation test voltage	1880 V
Classification acc. to IEC 62031	Built-in
Risk group (IEC 62471)	RG1
Type of protection	IP00
Beam characteristic	120 °

### Product details

- Works with Darkoo optics
- Built-in LED module
- Long life-time
- Ideal for panel luminaires
- Perfectly uniform light
- 5 years guarantee

Product code	Photometric code	Useful luminous flux at tp=25 °C	Expected luminous flux at tp rated	Forward current	Min. forward voltage at tp=85 °C	Max. forward voltage at tp=25 °C	Power consumption at tp=25 °C	Efficacy at tp=25 °C	Expected efficacy of at tp rated	Energy classification
A1545P12-350-740	740/359	4550 lm	4350 lm	350 mA	66,0 V	70,2 V	24,1 W	190 lm/W	183 lm/W	C
A1545P12-350-750	750/359	4550 lm	4350 lm	350 mA	66,0 V	70,2 V	24,1 W	190 lm/W	183 lm/W	C
A1545P12-350-757	757/359	4550 lm	4350 lm	350 mA	66,0 V	70,2 V	24,1 W	190 lm/W	183 lm/W	C
A1545P12-350-840	840/359	4100 lm	3900 lm	350 mA	66,0 V	70,2 V	24,1 W	171 lm/W	165 lm/W	D

# A1545P12

A1545P12-700-740	740/359	4550 lm	4350 lm	700 mA	33,0 V	35,1 V	24,1 W	190 lm/W	183 lm/W	C
A1545P12-700-750	750/359	4550 lm	4350 lm	700 mA	33,0 V	35,1 V	24,1 W	190 lm/W	183 lm/W	C
A1545P12-700-757	757/359	4550 lm	4350 lm	700 mA	33,0 V	35,1 V	24,1 W	190 lm/W	183 lm/W	C
A1545P12-700-840	840/359	4100 lm	3900 lm	700 mA	33,0 V	35,1 V	24,1 W	171 lm/W	165 lm/W	D

## A1545P12-350

Multiplier	tp 25 °C	tp 45 °C	tp 65 °C	tp 85 °C	If 175 mA	If 350 mA	If 525 mA	If 700 mA
Expected luminous flux	1	0,98	0,95	0,92	0,52	1	1,46	1,89
Efficacy	1	0,98	0,96	0,94	1,09	1	0,94	0,88

## A1545P12-700

Multiplier	tp 25 °C	tp 45 °C	tp 65 °C	tp 85 °C	If 350 mA	If 700 mA	If 1050 mA	If 1400 mA
Expected luminous flux	1	0,98	0,95	0,92	0,52	1	1,46	1,89
Efficacy	1	0,98	0,96	0,94	1,09	1	0,94	0,88

## Thermal details

Temperature has a great influence on the lifetime of LED products. Exceeding the permissible temperatures can significantly shorten the life of the module or even lead to its destruction. It is necessary to verify compliance with the maximum allowable temperature at the reference point under stable operating conditions. The maximum value should be determined based on the application-specific worst-case conditions. Both reference point temperatures ( $t_c$  and  $t_p$ ) are measured at the same location.

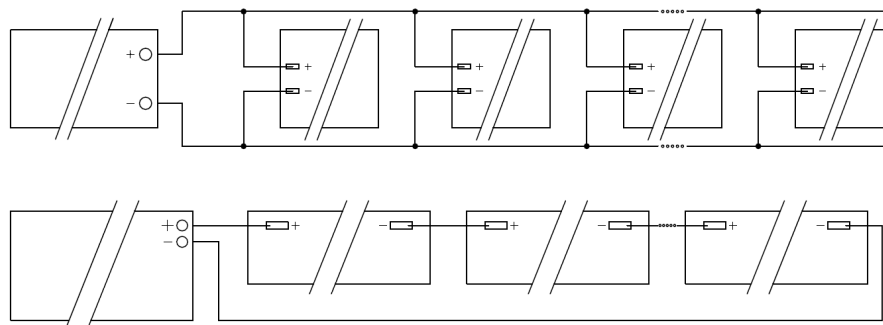
## Instalation

The module are not protected against overvoltages, overcurrents, overloads or short-circuit currents. Wrong polarity can damage the module. The module must be powered by a SELV or non-SELV constant current LED driver. Module can be mounted directly on earthed metal parts of luminaire only when max working voltage for insulation is higher than max. output voltage of LED driver (also against earth). Otherwise additional insulation between LED module and heat sink is required. At voltages > 60 V an additional protection against direct touch (test finger) to the light emitting side of the module has to be guaranteed. This is typically achieved by means of a non removable light distributor over the module or by a suitable luminaire construction.

## Risk of sulfurization

The LED uses a silver-plated lead frame and its surface color may change to black (or dark colored) when it is exposed to sulfur (S), chlorine (Cl) or other halogen compound. Sulfurization of lead frame may cause intensity degradation, change of chromaticity coordinates and, in extreme cases, open circuit. It requires caution. Due to possible sulfurization of lead frame, the LED Modules should not be used and stored together with oxidizing substances made of materials such as rubber, plain paper, lead solder cream, etc.

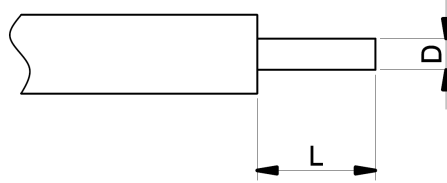
## Wiring example



# A1545P12

## Wiring type and cross section

The wiring can be in stranded wires or solid with a cross section of 0.2 to 0.75mm<sup>2</sup>.



D - wire cross section	Min	Max
	0,2mm <sup>2</sup>	0,75mm <sup>2</sup>
L - strip length	Min	Max
	7,5mm	9,5mm

## Photometric code

1 digit	2+3 digit	4 digit	5 digit	6 digit
CRI	Colour temperature in Kelvin x 100	MacAdam initial	Mac Adam after 25 % of the lifetime ( max. 6000 h )	Luminous flux after 25% of the lifetime ( max. 6000 h )
7 70-79				7 ≥ 70
8 80-89				8 ≥ 80
9 ≥90				9 ≥ 90