2PLIN 280x20mm CRI80 2000lm 225/450mA 4C V5

Drawing
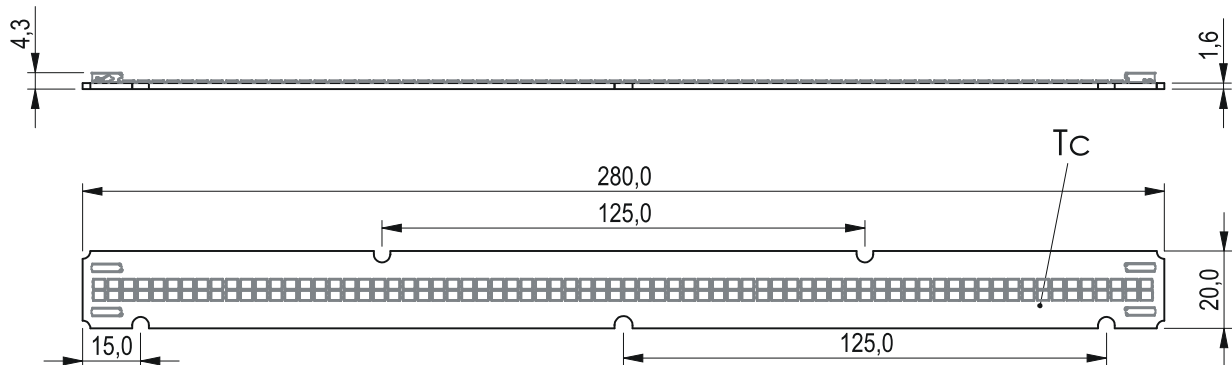
Technical data

Nominal forward current	225 mA
Maximum forward current	700 mA
Ambient temperature range	-25 ... +45°C
tc	85°C
tp rated	45°C
Lumen maintenance L70B50	>102000h
Max. working voltage for insulation	400 V
Insulation test voltage	1800 V
Classification acc. to IEC 62031	Built-in
Risk group (IEC 62471)	RG1
Type of protection	IP00
Beam characteristic	120 °

Product details

- Built-in LED module
- Long life-time
- Ideal for linear luminaires
- Perfectly uniform light
- Aluminium plate
- SELV module
- Dimmension according to L28W2
- 5 years guarantee

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Product code	Photometric code	Useful luminous flux at tp=25 ℃	Expected luminous flux at tp rated	Forward current	Min. forward voltage at tp=85 ℃	Max. forward voltage at tp=25 ℃	Power consumption at tp=25 ℃	Efficacy at tp=25 ℃	Expected efficacy of at tp rated	Energy classification
A2820-830-2000-225-4C-V5	830/359	1890 lm	1830 lm	225 mA	43,8 V	46,4 V	10,2 W	185 lm/W	180 lm/W	C
A2820-840-2000-225-4C-V5	840/359	1990 lm	1930 lm	225 mA	43,8 V	46,4 V	10,2 W	195 lm/W	190 lm/W	C

Temperature multiplier		
Temperature	Expected luminous flux	Efficacy
tp 25 ℃	1	1
tp 45 ℃	0,96	0,97
tp 65 ℃	0,93	0,94
tp 85 ℃	0,89	0,91
Nominal current multiplier		
Nominal current	Expected luminous flux	Efficacy
45 mA	0,19	0,99
90 mA	0,40	1,00
135 mA	0,60	1,00
180 mA	0,80	1,00
225 mA	1,00	1,00
270 mA	1,20	1,00
315 mA	1,39	0,99
360 mA	1,59	0,99
405 mA	1,78	0,99
450 mA	1,97	0,98
495 mA	2,16	0,98
540 mA	2,35	0,98
585 mA	2,54	0,97

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 (tc and tp) 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 diectly on earthed metal parts of luminaire only when max working voltage for insulation is highier than max. output voltage of LED driver (also againt 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.

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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 usedand stored together with oxidizing substances made of materials such as rubber, plain paper, lead solder cream, etc.

Wiring example
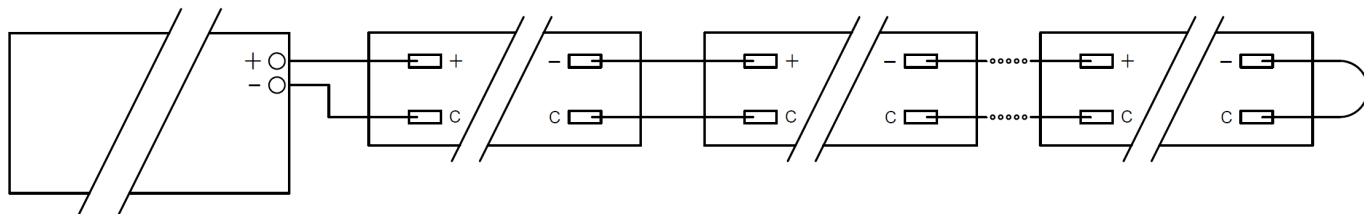
Wiring type and cross section

The wiring can be in stranded wires or solid with a cross section of 0.2 to 0.75mm^2.
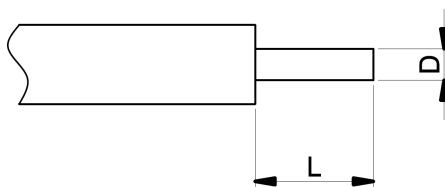
D – wire cross section	Min	Max
	0,2mm^2	0,5mm^2
L – strip lenght	Min	Max
	7,5mm	9,5mm

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