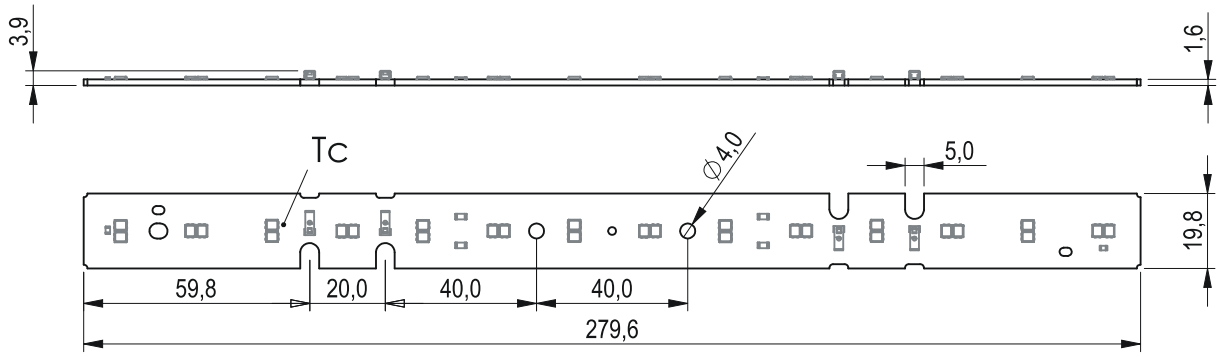
LIN 280x20mm CRI 80/90 1100 lm 150/300mA 4C V5/HE

Drawing



Technical data

Nominal forward current	150 mA / channel
Maximum forward current	450 mA / channel
Ambient temperature range	-25 … +45˚C
tc	85˚C
tp rated	65 ˚C
Lumen maintenance L70B50	>102000 h
Max. working voltage for insulation SELV	<60 V
Insulation test voltage	500 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
- Design for LEDiL DAISY-MINI
- SELV module
- Ideal for linear luminaires
- Dimmension according to L28W2
- 5 years guarantee

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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
A2820-840-280-4C-HE	840/359	1140 lm	1100 lm	280 mA	18,4 V	19,5 V	5,4 W	213 lm/W	208 lm/W	B
A2820-830-840-150-4C-V5	830/359	545 lm	530 lm	150 mA	18,7 V	19,8 V	2,9 W	187 lm/W	183 lm/W	C
	840/359	560 lm	545 lm	150 mA	18,7 V	19,8 V	2,9 W	193lm/W	188 lm/W	-
A2820-830-300-4C-V5	830/359	1090 lm	1060 lm	300 mA	18,7 V	19,8 V	5,8 W	187 lm/W	183 lm/W	C
A2820-840-300-4C-V5	840/359	1120 lm	1090 lm	300 mA	18,7 V	19,8 V	5,8 W	193lm/W	188 lm/W	C
A2820-930-940-170-4C-V5	930/359	540 lm	520 lm	170 mA	18,3 V	19,4 V	3,2 W	165 lm/W	161 lm/W	C
	940/359	570 lm	550 lm	170 mA	18,3 V	19,4 V	3,2 W	174 lm/W	170 lm/W	-
A2820-930-340-4C-V5	930/359	1070 lm	1040 lm	340 mA	18,3 V	19,4 V	6,5 W	165 lm/W	161 lm/W	D
A2820-940-340-4C-V5	940/359	1130 lm	1100 lm	340 mA	18,3 V	19,4 V	6,5 W	174 lm/W	170 lm/W	C

Temperature multiplier		
Temperature	Expected luminous flux	Efficacy
tp 25 °C	1	1
tp 45 °C	0,96	0,97
tp 65 °C	0,93	0,94
tp 85 °C	0,89	0,91
Nominal current multiplier		
Nominal current	Expected luminous flux	Efficacy
90 mA	0,37	1,04
120 mA	0,49	1,03
150 mA	0,60	1,02
180 mA	0,72	1,02
210 mA	0,83	1,01
240 mA	1,00	1,00
270 mA	1,05	1,00
300 mA	1,16	0,99
330 mA	1,27	0,98
360 mA	1,38	0,98
390 mA	1,48	0,97
420 mA	1,58	0,96
450 mA	1,69	0,96

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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.

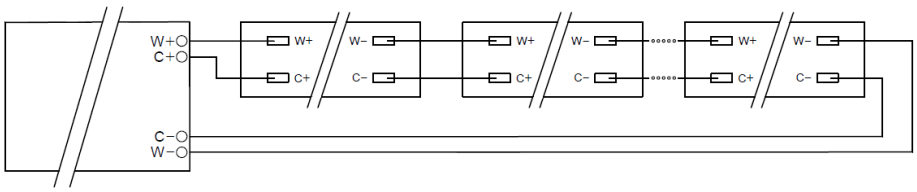
Instalation

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.

Risk of sulfurization

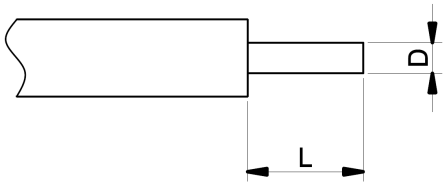
The LED uses a silver-plated lead frame and its surface color may change to black (or dark colored) when it is exposed to sulfur (S),chlorine (Cl) or other halogen compound. Sulfurization of lead frame may cause intensity degradation, change of chromaticity coordinates and, in extreme cases, open circuit. 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 0.75mm².



D - wire cross section	Min	Max
	0,2mm²	0,5mm²
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