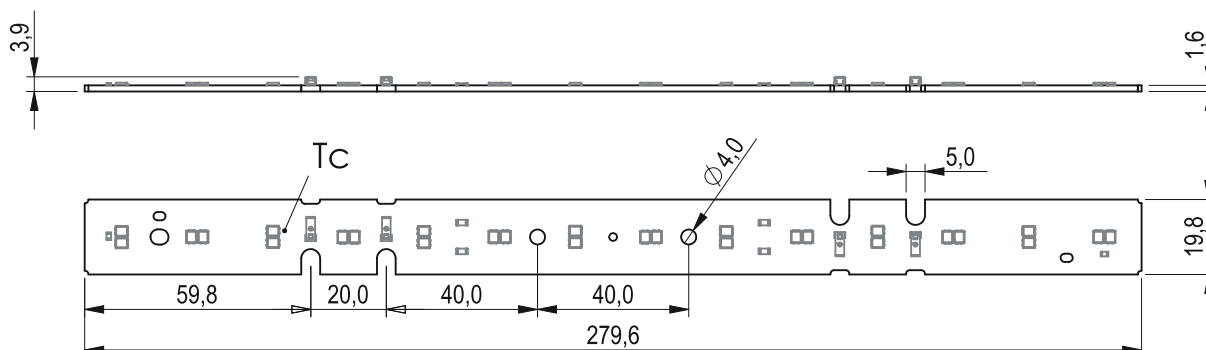


# LIN 280x20mm CRI 80/90 1200/1100lm 170/340mA 4C

## Drawing



### Technical data

Nominal forward current	170 mA / channel
Maximum forward current	400 mA / channel
Ambient temperature range	-25 ... +45 °C
tc	85 °C
tp rated	65 °C
Lumen maintenance L70B50	>72000 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
- Dimension according to L28W2
- 5 years guarantee

# LIN 280x20mm CRI 80/90 1200/1100lm 170/340mA 4C

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
A2820-840-1200-340-4C-HE	840/359	1375 lm	1330 lm	340 mA	19,2 V	20,3 V	6,8 W	203 lm/W	198 lm/W	B
A2820-830-840-1200-170-4C-V5	830/359	615 lm	600 lm	170 mA	19,2 V	20,3 V	3,4 W	182 lm/W	177 lm/W	C
	840/359	635 lm	615 lm	170 mA	19,2 V	20,3 V	3,4 W	187 lm/W	183 lm/W	-
A2820-830-1200-340-4C-V5	830/359	1230 lm	1200 lm	340 mA	19,2 V	20,3 V	6,8 W	182 lm/W	177 lm/W	C
A2820-840-1200-340-4C-V5	840/359	1270 lm	1230 lm	340 mA	19,2 V	20,3 V	6,8 W	187 lm/W	183 lm/W	C
A2820-930-940-1100-170-4C-V5*	930/359	540 lm	520 lm	170 mA	19,2 V	20,3 V	3,4 W	158 lm/W	154 lm/W	D
	940/359	570 lm	550 lm	170 mA	19,2 V	20,3 V	3,4 W	167 lm/W	163 lm/W	-
A2820-930-1200-340-4C-V5*	930/359	1070 lm	1040 lm	340 mA	19,2 V	20,3 V	6,8 W	158 lm/W	154 lm/W	D
A2820-940-1200-340-4C-V5*	940/359	1130 lm	1100 lm	340 mA	19,2 V	20,3 V	6,8 W	167 lm/W	163 lm/W	D

\*The values given for the CRI 90 variants are simulation variants, the actual values may differ slightly from those given

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



# LIN 280x20mm CRI 80/90 1200/1100lm 170/340mA 4C

## 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.

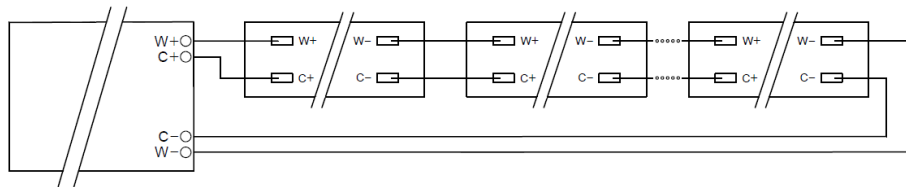
## Instalation

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 diectly 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

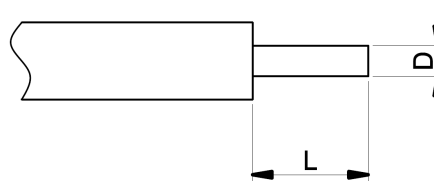
The LED uses a silver-plated lead frame and its surface color may change to black (or dark colored) when it is exposed to sulfur (S),chlorine (Cl) or other halogen compound. Sulfurization of lead frame may cause intensity degradatation, change of chromaticity coordinates and, in extreme cases, open circuit. 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<sup>2</sup>.



D - wire cross section	Min	Max
	0,2mm <sup>2</sup>	0,75mm <sup>2</sup>
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

