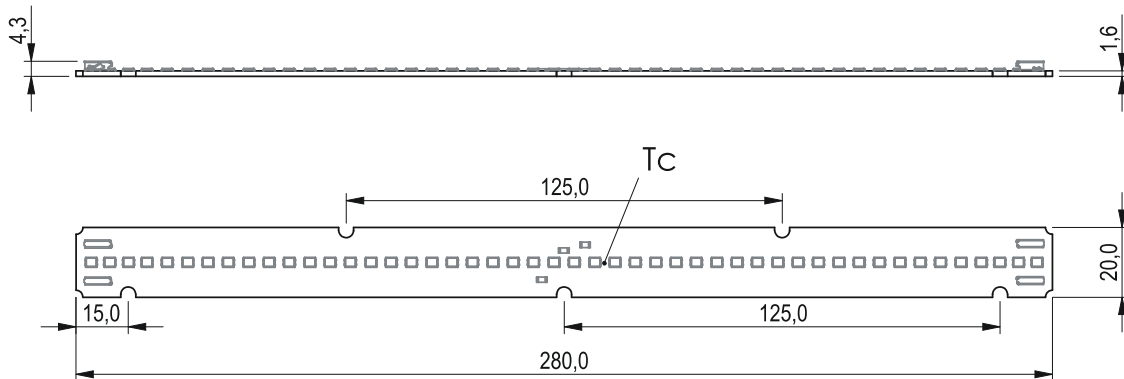


# A2820L48

## Drawing



### Technical data

Nominal forward current	350 / 700 mA
Maximum forward current	600 / 1200 mA
Ambient temperature range	-25 ... +45 °C
t <sub>c</sub>	85 °C
t <sub>p</sub> rated	45 °C
Lumen maintenance L80B10	60000h
Lumen maintenance L70B50	>72000h
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
- Dimension according to L28W2
- 5 years guarantee

Product code	Photometric code	Useful luminous flux at t <sub>p</sub> =25 °C	Expected luminous flux at t <sub>p</sub> rated	Forward current	Min. forward voltage at t <sub>p</sub> =85 °C	Max. forward voltage at t <sub>p</sub> =25 °C	Power consumption at t <sub>p</sub> =25 °C	Efficacy at t <sub>p</sub> =25 °C	Expected efficacy of at t <sub>p</sub> rated	Energy classification
A2820L48-350-827	827/359	2700 lm	2600 lm	350 mA	43,6 V	46,2 V	15,8 W	170 lm/W	164 lm/W	D
A2820L48-350-830	830/359	2750 lm	2650 lm	350 mA	43,6 V	46,2 V	15,8 W	175 lm/W	169 lm/W	C
A2820L48-350-840	840/359	2900 lm	2800 lm	350 mA	43,6 V	46,2 V	15,8 W	182 lm/W	177 lm/W	C
A2820L48-350-850	850/359	2900 lm	2800 lm	350 mA	43,6 V	46,2 V	15,8 W	182 lm/W	177 lm/W	C
A2820L48-700-827	827/359	2700 lm	2600 lm	700 mA	21,8 V	23,1 V	15,8 W	170 lm/W	164 lm/W	D
A2820L48-700-830	830/359	2750 lm	2650 lm	700 mA	21,8 V	23,1 V	15,8 W	175 lm/W	169 lm/W	C
A2820L48-700-840	840/359	2900 lm	2800 lm	700 mA	21,8 V	23,1 V	15,8 W	182 lm/W	177 lm/W	C
A2820L48-700-850	850/359	2900 lm	2800 lm	700 mA	21,8 V	23,1 V	15,8 W	182 lm/W	177 lm/W	C

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A2820L48-350-927	927/359	2200 lm	2150 lm	350 mA	44,4 V	47,0 V	16,2 W	135 lm/W	132 lm/W	E
A2820L48-350-930	930/359	2250 lm	2200 lm	350 mA	44,4 V	47,0 V	16,2 W	138 lm/W	135 lm/W	E
A2820L48-350-940	940/359	2350 lm	2300 lm	350 mA	44,4 V	47,0 V	16,2 W	145 lm/W	141 lm/W	D
A2820L48-700-927	927/359	2200 lm	2150 lm	700 mA	22,2 V	23,5 V	16,2 W	135 lm/W	132 lm/W	E
A2820L48-700-930	930/359	2250 lm	2200 lm	700 mA	22,2 V	23,5 V	16,2 W	138 lm/W	135 lm/W	E
A2820L48-700-940	940/359	2350 lm	2300 lm	700 mA	22,2 V	23,5 V	16,2 W	145 lm/W	141 lm/W	D

A2820L48-350-Multiplier	tp 25 °C	tp 45 °C	tp 65 °C	tp 85 °C	If 88 mA	If 175 mA	If 350 mA	If 500 mA
Expected luminous flux	1	0,96	0,93	0,89	0,26	0,51	1	1,40
Efficacy	1	0,97	0,94	0,91	1,09	1,06	1	0,96

A2820L48-700-Multiplier	tp 25 °C	tp 45 °C	tp 65 °C	tp 85 °C	If 175 mA	If 350 mA	If 700 mA	If 1050 mA
Expected luminous flux	1	0,96	0,93	0,89	0,26	0,51	1	1,47
Efficacy	1	0,97	0,94	0,91	1,09	1,06	1	0,95

## 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.

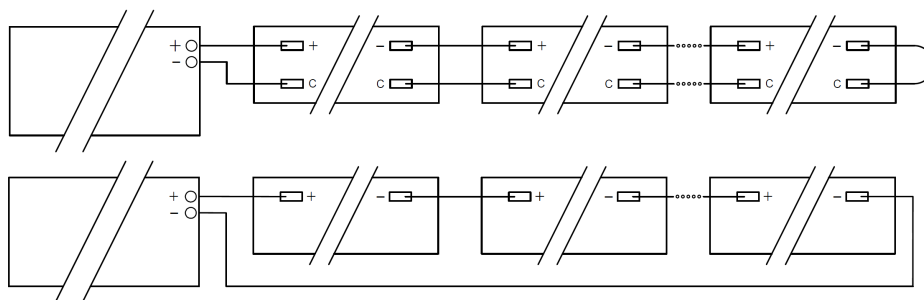
## Instalation

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 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 degradadion, 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.

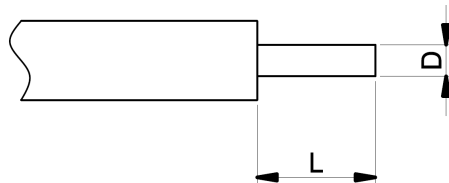
## Wiring example



# A2820L48

## Wiring

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