

## Linear LED modules 1100lm/1ft 4C

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2200K to 6500K and CRI 80, 90 and 95



### LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* Φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
LinLED 280x20mm 1100lm 830 4C 36V Opt G3	1010 117 84546	3000	175	1022	32	5.6	182	600
LinLED 560x20mm 2200lm 830 4C 36V Opt G3	1010 117 84646		350	2044	32	11	182	1200
LinLED 280x20mm 1100lm 840 4C 36V Opt G3	1010 117 84746	4000	175	1124	32	5.6	200	600
LinLED 560x20mm 2200lm 840 4C 36V Opt G3	1010 117 84846		350	2247	32	11	200	1200

### LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* Φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
LinLED 280x20mm 1100lm 830 4C 36V Opt G2	1010 117 32646	3000	185	1053	34	6.2	169	450
LinLED 560x20mm 2200lm 830 4C 36V Opt G2	1010 117 33246		370	2105	34	12	169	900
LinLED 280x20mm 1100lm 840 4C 36V Opt G2	1010 117 32746	4000	185	1106	34	6.2	177	450
LinLED 560x20mm 2200lm 840 4C 36V Opt G2	1010 117 33346		370	2213	34	12	177	900

### LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* Φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
LinLED 280x20mm 1100lm 830 4C 36V Bsc G1	1010 117 38046	3000	210	1048	34	7.1	147	450
LinLED 560x20mm 2200lm 830 4C 36V Bsc G1	1010 117 38646		420	2097	34	14	147	900
LinLED 280x20mm 1100lm 840 4C 36V Bsc G1	1010 117 38146	4000	210	1102	34	7.1	155	450
LinLED 560x20mm 2200lm 840 4C 36V Bsc G1	1010 117 38746		420	2204	34	14	155	900

### LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* Φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
LinLED 280x20mm 1100lm 927 4C 36V Opt G2	1010 117 69946	2700	210	964	34	7.1	135	450
LinLED 560x20mm 2200lm 927 4C 36V Opt G2	1010 117 70046		420	1928	34	14	135	900
LinLED 280x20mm 1100lm 930 4C 36V Opt G2	1010 117 40146	3000	210	1035	34	7.1	145	450
LinLED 560x20mm 2200lm 930 4C 36V Opt G2	1010 117 40746		420	2071	34	14	145	900
LinLED 280x20mm 1100lm 940 4C 36V Opt G2	1010 117 40246	4000	210	1107	34	7.1	155	450
LinLED 560x20mm 2200lm 940 4C 36V Opt G2	1010 117 40846		420	2213	34	14	155	900

\*At nominal current and T<sub>p</sub>

Tolerance range for optical and electrical ±10%

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### Temperature & humidity

Specification item	Unit	Value
<b>Tp</b>	[°C]	45
<b>Tp rated</b>	[°C]	65
<b>Tc</b>	[°C]	85
<b>Relative humidity (non-condensing)</b>	[%]	5 ... 85
<b>Storage ambient temperature</b>	[°C]	-25 ... +85
<b>Storage relative humidity (non-condensing)</b>	[%]	5 ... 85

Tp - Temperature related to the performance parameters of the LED modules

Tp rated - Maximum operating temperature to which the rated performance characteristics are declared

Tc - Highest permissible value for safe operation

### Technical data

Specification item	Unit	Value
<b>Classification acc. to IEC 62031</b>	[V]	built-in
<b>Energy Efficiency Class</b>		A++
<b>Beam angle</b>	[deg]	120
<b>Initial color consistency</b>	[SDCM]	3
<b>Initial color coordinates</b>		Acc. to CIE 1931
<b>Photobiological safety</b>		RG1 unlimited

### Certificates & standards

Specification item	Compliant
<b>ENEC</b>	No
<b>CE</b>	Yes
<b>RoHS</b>	Yes
<b>REACH</b>	Yes
<b>Zhaga</b>	Comply with Book 7
<b>IP rating</b>	No IP rating

## Linear LED modules 1100lm/1ft 4C

### Lumen maintenance

#### LinLED CRI 80

only for LinLED CRI 80 Optimum G3

Forward current	Tp temperature	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	40 000	36 000
	55°C	>60 000	>60 000	>60 000	>60 000	35 000	30 000
	65°C	>60 000	>60 000	>60 000	>60 000	30 000	25 000
If max	45°C	>60 000	>60 000	>60 000	>60 000	35 000	30 000
	55°C	>60 000	>60 000	>60 000	>60 000	30 000	27 000
	65°C	>60 000	>60 000	>60 000	55 000	25 000	25 000

reported data based on LM80 LED data (10 000h)

#### LinLED CRI 80

Forward current	Tp temperature	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	>60 000	>60 000
	55°C	>60 000	>60 000	>60 000	>60 000	>60 000	>60 000
	65°C	>60 000	>60 000	>60 000	>60 000	>60 000	53 000
If max	45°C	>60 000	>60 000	>60 000	>60 000	>60 000	57 000
	55°C	>60 000	>60 000	>60 000	>60 000	>60 000	54 000
	65°C	>60 000	>60 000	>60 000	>60 000	>60 000	48 000

reported data based on LM80 LED data (10 000h)

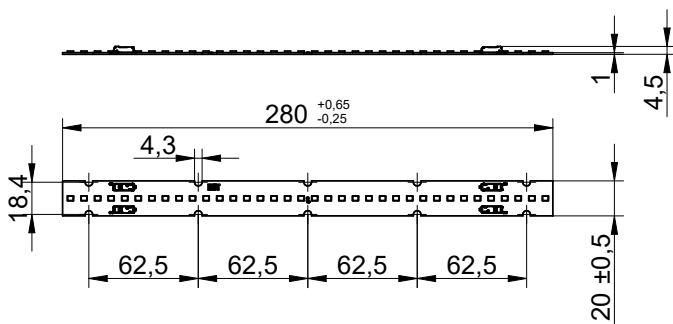
#### LinLED CRI 90

Forward current	Tp temperature	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	>60 000	59 000
	55°C	>60 000	>60 000	>60 000	>60 000	55 000	54 000
	65°C	>60 000	>60 000	>60 000	>60 000	49 000	48 000
If max	45°C	>60 000	>60 000	50 000	47 000	28 000	27 000
	55°C	>60 000	>60 000	47 000	44 000	26 000	25 000
	65°C	>60 000	>60 000	44 000	41 000	24 000	22 000

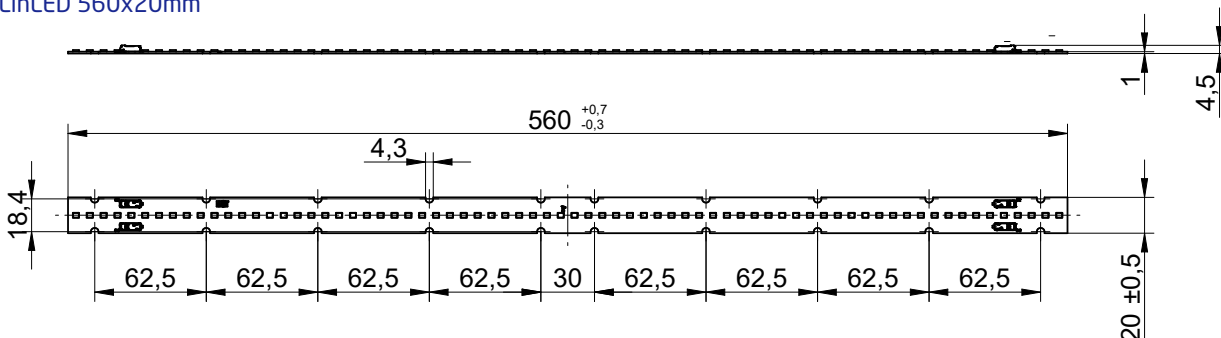
reported data based on LM80 LED data (10 000h)

### Dimensions

#### LinLED 280x20mm



#### LinLED 560x20mm



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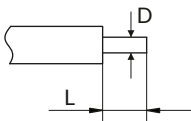
### Mounting

LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max. torque for fixing: 0,5Nm.

LED modules are sensitive to electrostatic discharge (ESD). Follow safety regulations according to IEC 61340-5-1.

### Wiring

Wire cross section and strip length:



	Min	Max
D - wire cross section <i>solid and flexible wires</i>	0.2mm <sup>2</sup>	0.75mm <sup>2</sup>
	AWG 24	AWG 18

	Min	Max
L - strip length	8mm	9mm

Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:

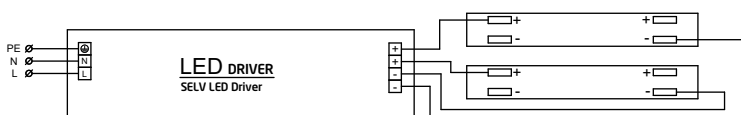
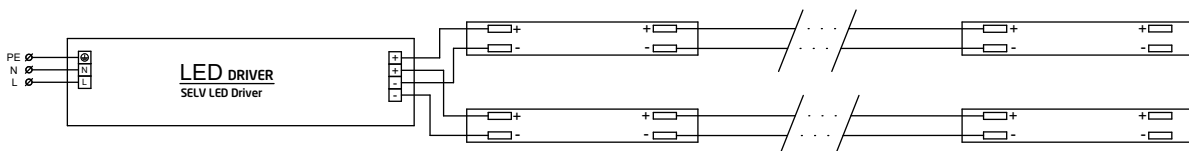
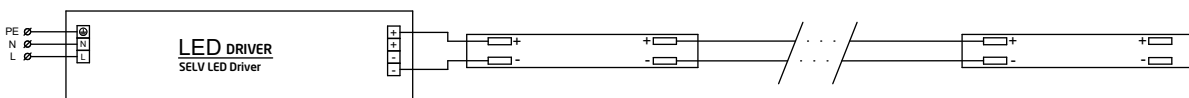


### Connections

Wiring for parallel connection system (4C)

$$I_{\text{driver}} = I_{\text{LED module}} * n \quad n - \text{number of modules}$$

$$U_{\text{driver}} = U_{\text{LED module}}$$



The maximum number of LED modules connected in parallel is limited due to track resistance and must not exceed length of 6ft in total. Building second chain allows to connect more LED modules.

## Linear LED modules 1100lm/1ft 4C

### Ordering codes

Specification item	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
LinLED 280x20mm 1100lm 830 4C 36V Opt G3	1010 117 84546	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 830 4C 36V Opt G3	1010 117 84646	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 840 4C 36V Opt G3	1010 117 84746	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 840 4C 36V Opt G3	1010 117 84846	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 830 4C 36V Opt G2	1010 117 32646	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 830 4C 36V Opt G2	1010 117 33246	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 840 4C 36V Opt G2	1010 117 32746	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 840 4C 36V Opt G2	1010 117 33346	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 830 4C 36V Bsc G1	1010 117 38046	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 830 4C 36V Bsc G1	1010 117 38646	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 840 4C 36V Bsc G1	1010 117 38146	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 840 4C 36V Bsc G1	1010 117 38746	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 927 4C 36V Opt G2	1010 117 69946	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 927 4C 36V Opt G2	1010 117 70046	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 930 4C 36V Opt G2	1010 117 40146	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 930 4C 36V Opt G2	1010 117 40746	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 940 4C 36V Opt G2	1010 117 40246	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 940 4C 36V Opt G2	1010 117 40846	154	8624	594 x 303 x 58