

## Linear LED modules 2000lm 42V per 1ft 2C

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2200K to 6500K and CRI 80, 90



### LinLED CRI 80 Optimum G5

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux <sup>1</sup> φ [lm]	Useful luminous flux <sup>2</sup> [lm]	Voltage <sup>1</sup> Vf [V]	Power <sup>1</sup> P [W]	Efficacy <sup>1</sup> [lm/W]	Current minimum If min <sup>3</sup> [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 830 2C 42V Opt G5	1010 127 97746	3000	270	1931	1981	38	10	191	40	1200	C
LinLED 560x24mm 4000lm 830 2C 84V Opt G5	1010 127 97846		270	3861	3962	75	20	191	40	1200	C
LinLED 280x24mm 2000lm 840 2C 42V Opt G5	1010 127 97946	4000	270	2059	2113	38	10	203	40	1200	B
LinLED 560x24mm 4000lm 840 2C 84V Opt G5	1010 127 98046		270	4119	4226	75	20	203	40	1200	B

### LinLED CRI 80 Optimum G4

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux <sup>1</sup> φ [lm]	Useful luminous flux <sup>2</sup> [lm]	Voltage <sup>1</sup> Vf [V]	Power <sup>1</sup> P [W]	Efficacy <sup>1</sup> [lm/W]	Current minimum If min <sup>3</sup> [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 830 2C 42V Opt G4	1010 127 97346	3000	280	1937	1986	38	11	181	40	1000	C
LinLED 560x24mm 4000lm 830 2C 84V Opt G4	1010 127 97446		280	3874	3973	76	21	181	40	1000	C
LinLED 280x24mm 2000lm 840 2C 42V Opt G4	1010 127 97546	4000	280	2071	2123	38	11	194	40	1000	B
LinLED 560x24mm 4000lm 840 2C 84V Opt G4	1010 127 97646		280	4142	4247	76	21	194	40	1000	B

### LinLED CRI 80 Optimum G3.1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux <sup>1</sup> φ [lm]	Useful luminous flux <sup>2</sup> [lm]	Voltage <sup>1</sup> Vf [V]	Power <sup>1</sup> P [W]	Efficacy <sup>1</sup> [lm/W]	Current minimum If min <sup>3</sup> [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 840 2C 42V Opt G3.1	1010 127 68546	4000	280	2071	2146	39	11	191	40	600	C
LinLED 560x24mm 4000lm 840 2C 84V Opt G3.1	1010 127 68646		280	4141	4292	77	22	191	40	600	C

### LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux <sup>1</sup> φ [lm]	Useful luminous flux <sup>2</sup> [lm]	Voltage <sup>1</sup> Vf [V]	Power <sup>1</sup> P [W]	Efficacy <sup>1</sup> [lm/W]	Current minimum If min <sup>3</sup> [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 830 2C 42V Opt G2	1010 117 31846	3000	280	1846	1910	40	11	166	40	600	D
LinLED 560x24mm 4000lm 830 2C 84V Opt G2	1010 117 32446		280	3691	3819	79	22	167	40	600	D
LinLED 280x24mm 2000lm 840 2C 42V Opt G2	1010 117 31946	4000	280	1940	2008	40	11	175	40	600	C
LinLED 560x24mm 4000lm 840 2C 84V Opt G2	1010 117 32546		280	3880	4015	79	22	176	40	600	C

### LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux <sup>1</sup> φ [lm]	Useful luminous flux <sup>2</sup> [lm]	Voltage <sup>1</sup> Vf [V]	Power <sup>1</sup> P [W]	Efficacy <sup>1</sup> [lm/W]	Current minimum If min <sup>3</sup> [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 927 2C 42V Opt G2	1010 117 69646	2700	330	1680	1808	41	13	130	40	600	E
LinLED 560x24mm 4000lm 927 2C 84V Opt G2	1010 117 69746		330	3490	3617	81	27	130	40	600	E
LinLED 280x24mm 2000lm 930 2C 42V Opt G2	1010 117 39746	3000	330	1874	1963	41	13	140	40	600	E
LinLED 560x24mm 4000lm 930 2C 84V Opt G2	1010 117 39946		330	3748	3925	81	27	140	40	600	E
LinLED 280x24mm 2000lm 940 2C 42V Opt G2	1010 117 39846	4000	330	2003	2098	41	13	149	40	600	D
LinLED 560x24mm 4000lm 940 2C 84V Opt G2	1010 117 40046		330	4007	4196	81	27	149	40	600	D

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### LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux <sup>1</sup> $\phi$ [lm]	Useful luminous flux <sup>2</sup> [lm]	Voltage <sup>1</sup> Vf [V]	Power <sup>1</sup> P [W]	Efficacy <sup>1</sup> [lm/W]	Current minimum If min <sup>3</sup> [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 830 2C 42V Bsc G1	1010 117 37246	3000	335	1926	2087	40	13	144	40	600	D
LinLED 560x24mm 4000lm 830 2C 84V Bsc G1	1010 117 37846		335	3852	4174	80	27	144	40	600	D

<sup>1</sup>At nominal current and T<sub>p</sub>

<sup>2</sup>At nominal current and 25°C

<sup>3</sup>It is recommended not to operate below minimum current in order to avoid un-even brightness

Tolerance range for optical and electrical  $\pm 10\%$

### Temperature & humidity

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

T<sub>p</sub> - Temperature related to the performance parameters of the LED modules

T<sub>p</sub> rated - Maximum operating temperature to which the rated performance characteristics are declared

T<sub>c</sub> - Highest permissible value for safe operation

### Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

### Color coordinates

According to CIE 1931

Specification item	CIE <sub>x</sub>	CIE <sub>y</sub>
2700K	0.4578	0.4101
3000K	0.4338	0.4030
4000K	0.3818	0.3797
6500K	0.3123	0.3282

### Certificates & standards

Specification item	Compliant
ENEC	Yes
CE	Yes
RoHS	Yes
REACH	Yes
IP rating	No IP rating

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### Lumen maintenance

### LinLED CRI 80

for LinLED CRI 80 Optimum G2 & G3.1 & Basic G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>100 000	>100 000	>100 000	>100 000	67 000	57 000
	55°C	>100 000	>100 000	>100 000	>100 000	67 000	57 000
	65°C	>100 000	>100 000	>100 000	>100 000	65 000	56 000
	75°C	>100 000	>100 000	>100 000	>100 000	64 000	54 000
	85°C	>100 000	>100 000	>100 000	>100 000	62 000	54 000
If max	45°C	>100 000	>100 000	>100 000	>100 000	51 000	39 000
	55°C	>100 000	>100 000	>100 000	>100 000	51 000	39 000
	65°C	>100 000	>100 000	>100 000	>100 000	48 000	37 000
	75°C	>100 000	>100 000	>100 000	>100 000	45 000	35 000
	85°C	>100 000	>100 000	>100 000	69 000	43 000	34 000

calculated data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

### LinLED CRI 90

for LinLED CRI 90 Optimum G2

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>100 000	>100 000	>100 000	>100 000	60 000	57 000
	55°C	>100 000	>100 000	99 000	91 000	48 000	47 000
	65°C	>100 000	>100 000	78 000	73 000	38 000	34 000
If max	45°C	82 000	69 000	52 000	49 000	29 000	28 000
	55°C	73 000	63 000	47 000	44 000	25 000	24 000
	65°C	64 000	58 000	41 000	38 000	22 000	19 000

calculated data based on LM80 LED data 10 000h

### LinLED CRI 80

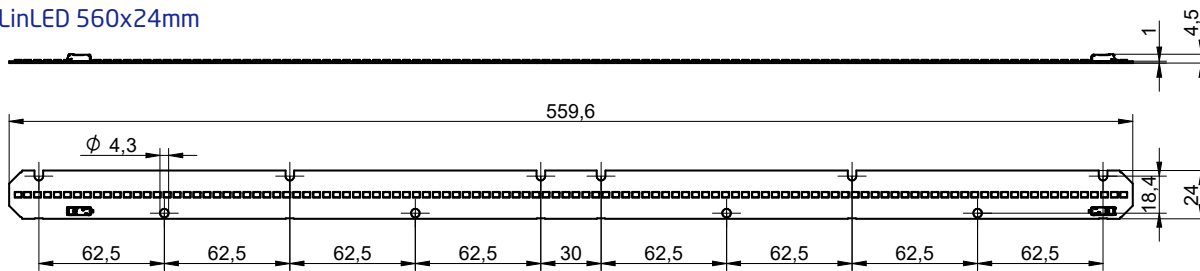
for LinLED CRI 80 Optimum G4 & G5

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>102 000	>102 000	>102 000	>102 000	>102 000	>102 000
	55°C	>102 000	>102 000	>102 000	>102 000	>102 000	>102 000
	65°C	>102 000	>102 000	>102 000	>102 000	87 000	86 000
	75°C	>102 000	>102 000	>102 000	>102 000	74 000	73 000
	85°C	>102 000	>102 000	>102 000	>102 000	63 000	62 000
If max	45°C	>102 000	>102 000	>102 000	>102 000	>102 000	>102 000
	55°C	>102 000	>102 000	>102 000	>102 000	90 000	89 000
	65°C	>102 000	>102 000	>102 000	>102 000	77 000	76 000
	75°C	>102 000	>102 000	>102 000	>102 000	65 000	64 000
	85°C	>102 000	>102 000	>102 000	>102 000	55 000	54 000

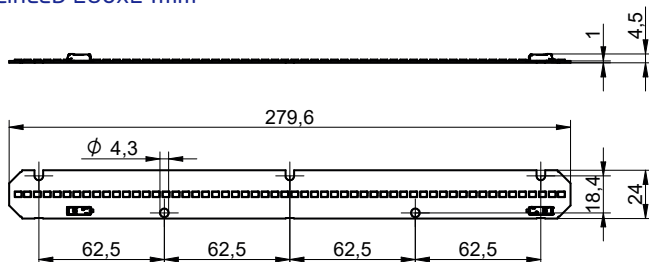
Reported data based on LM80 LED data 12000h

## Dimensions

### LinLED 560x24mm



### LinLED 280x24mm



## Linear LED modules 2000lm 42V per 1ft 2C

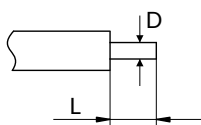
### Mounting

LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat asurface 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:



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

L - strip length	Min	Max
	8mm	9mm

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

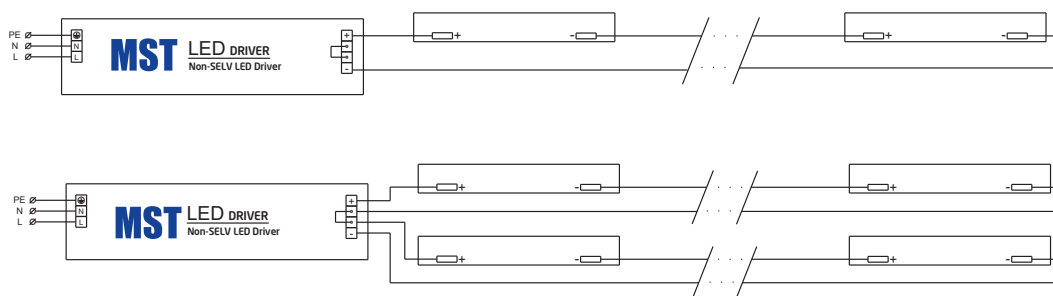


### Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x24mm	[pcs]	8	-
LinLED 560x24mm	[pcs]	4	-

You can combine different lengths of LED modules so that the maximum length does not exceed 2240mm

### Wiring for series connection system (2C)



### Energy Label / EPREL database

To obtain Energy Label for this product visit <https://eprel.ec.europa.eu/> and enter model identifier

Model identifier consists of 10 digits XXXX XXX XXX. It is printed directly on the LED module or on product label. This is the number you can see in EPREL database.

Ordering code consist of 12 digits XXXX XXX XXX46. Additional last two digits means packaging of the product.

## Linear LED modules 2000lm 42V per 1ft 2C

### Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
LinLED 280x24mm 2000lm 830 2C 42V Opt G5	1010 127 97746	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 830 2C 84V Opt G5	1010 127 97846	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Opt G5	1010 127 97946	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 840 2C 84V Opt G5	1010 127 98046	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 830 2C 42V Opt G4	1010 127 97346	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 830 2C 84V Opt G4	1010 127 97446	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Opt G4	1010 127 97546	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 840 2C 84V Opt G4	1010 127 97646	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Opt G3.1	1010 127 68546	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 840 2C 84V Opt G3.1	1010 127 68646	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 830 2C 42V Opt G2	1010 117 31846	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 830 2C 84V Opt G2	1010 117 32446	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Opt G2	1010 117 31946	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 840 2C 84V Opt G2	1010 117 32546	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 927 2C 42V Opt G2	1010 117 69646	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 927 2C 84V Opt G2	1010 117 69746	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 930 2C 42V Opt G2	1010 117 39746	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 930 2C 84V Opt G2	1010 117 39946	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 940 2C 42V Opt G2	1010 117 39846	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 940 2C 84V Opt G2	1010 117 40046	180	10800	603 x 266 x 83
LinLED 280x24mm 2000lm 830 2C 42V Bsc G1	1010 117 37246	180	21600	300 x 266 x 83
LinLED 560x24mm 4000lm 830 2C 84V Bsc G1	1010 117 37846	180	10800	603 x 266 x 83