

Linear LED modules 2000lm/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 G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux ¹ φ [lm]	Useful luminous flux ² [lm]	Voltage ¹ Vf [V]	Power ¹ P [W]	Efficacy ¹ [lm/W]	Current minimum If min ³ [mA]	Current maximum If max [mA]	Energy Efficiency Class
LinLED 280x24mm 2000lm 830 2C 42V Opt G3	1010 117 76646	3000	280	1877	1937	38	11	177	40	600	C
LinLED 560x24mm 4000lm 830 2C 84V Opt G3	1010 117 76846		280	3755	3874	76	21	177	40	600	C
LinLED 280x24mm 2000lm 840 2C 42V Opt G3	1010 117 76746	4000	280	2064	2099	38	11	194	40	600	C
LinLED 560x24mm 4000lm 840 2C 84V Opt G3	1010 117 76946		280	4129	4197	76	21	194	40	600	C

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux ¹ φ [lm]	Useful luminous flux ² [lm]	Voltage ¹ Vf [V]	Power ¹ P [W]	Efficacy ¹ [lm/W]	Current minimum If min ³ [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 ¹ φ [lm]	Useful luminous flux ² [lm]	Voltage ¹ Vf [V]	Power ¹ P [W]	Efficacy ¹ [lm/W]	Current minimum If min ³ [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

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux ¹ φ [lm]	Useful luminous flux ² [lm]	Voltage ¹ Vf [V]	Power ¹ P [W]	Efficacy ¹ [lm/W]	Current minimum If min ³ [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
LinLED 280x24mm 2000lm 840 2C 42V Bsc G1	1010 117 37346	4000	335	2085	2204	40	13	151	40	600	D
LinLED 560x24mm 4000lm 840 2C 84V Bsc G1	1010 117 37946		335	4049	4407	80	27	152	40	600	D

¹At nominal current and T_p

²At nominal current and 25°C

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

Tolerance range for optical and electrical ±10%

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Temperature & humidity

Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condensing)	[%]	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
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	CIEx	CIEy
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
Zhaga	Comply with Book 7
IP rating	No IP rating

Lumen maintenance

LinLED CRI 80

for LinLED CRI 80 Optimum G3

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	44 000	39 000
	65°C	>60 000	>60 000	>60 000	>60 000	34 000	39 000
	85°C	>60 000	>60 000	>60 000	59 000	29 000	25 000
If max	45°C	>60 000	>60 000	>60 000	>60 000	40 000	32 000
	65°C	>60 000	>60 000	>60 000	>60 000	30 000	27 000
	85°C	>60 000	>60 000	>60 000	55 000	25 000	25 000

reported data based on LM80 LED data 10 000h)

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	>60 000	>60 000	>60 000	>60 000	>60 000	57 000
	55°C	>60 000	>60 000	>60 000	>60 000	48 000	47 000
	65°C	>60 000	>60 000	>60 000	>60 000	38 000	34 000
If max	45°C	>60 000	>60 000	52 000	49 000	29 000	28 000
	55°C	>60 000	>60 000	47 000	44 000	25 000	24 000
	65°C	>60 000	58 000	41 000	38 000	22 000	19 000

reported data based on LM80 LED data 10 000h)

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LinLED CRI 80

for LinLED CRI 80 Optimum G2

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>72 000	>72 000	>72 000	>72 000	71 000	61 000
	55°C	>72 000	>72 000	>72 000	>72 000	71 000	61 000
	65°C	>72 000	>72 000	>72 000	>72 000	69 000	60 000
	75°C	>72 000	>72 000	>72 000	>72 000	68 000	59 000
	85°C	>72 000	>72 000	>72 000	>72 000	67 000	58 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	55°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	65°C	>72 000	>72 000	>72 000	>72 000	48 000	37 000
	75°C	>72 000	>72 000	>72 000	>72 000	45 000	35 000
	85°C	>72 000	>72 000	>72 000	69 000	43 000	34 000

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

LinLED CRI 80

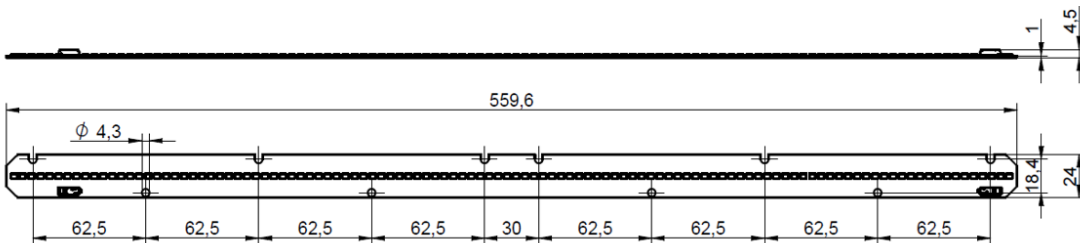
for LinLED CRI 80 Basic G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>72 000	>72 000	>72 000	>72 000	67 000	57 000
	55°C	>72 000	>72 000	>72 000	>72 000	67 000	57 000
	65°C	>72 000	>72 000	>72 000	>72 000	65 000	56 000
	75°C	>72 000	>72 000	>72 000	>72 000	64 000	54 000
	85°C	>72 000	>72 000	>72 000	>72 000	62 000	54 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	55°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	65°C	>72 000	>72 000	>72 000	>72 000	48 000	37 000
	75°C	>72 000	>72 000	>72 000	>72 000	45 000	35 000
	85°C	>72 000	>72 000	>72 000	69 000	43 000	34 000

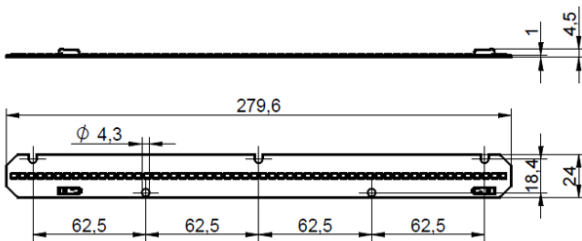
reported data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

Dimensions

LinLED 560x24mm 4000lm 2C 84V



LinLED 280x24mm 2000lm 2C 42V



Mounting

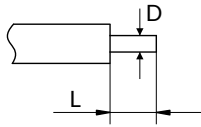
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface of the pcb. Max. torque for fixing: 0,5Nm.

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

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Wiring

Wire cross section and strip length:



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

L - strip length	Min	Max
	8mm	9mm

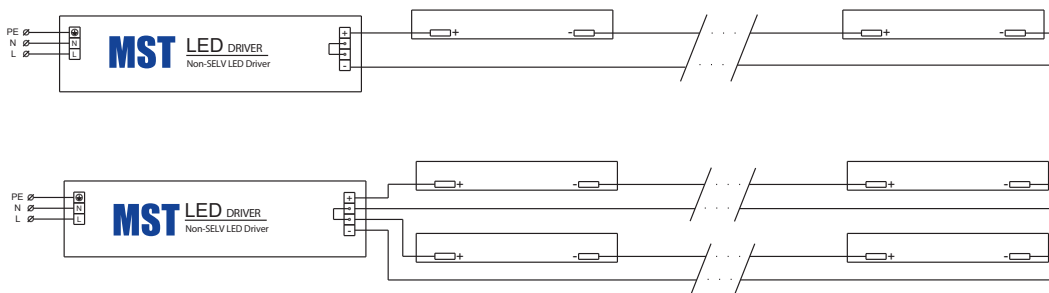
Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:



Connections

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

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/1ft 2C

Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
LinLED 280x24mm 2000lm 830 2C 42V Opt G3	1010 117 76646	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 830 2C 84V Opt G3	1010 117 76846	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Opt G3	1010 117 76746	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 840 2C 84V Opt G3	1010 117 76946	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 830 2C 42V Opt G2	1010 117 31846	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 830 2C 84V Opt G2	1010 117 32446	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Opt G2	1010 117 31946	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 840 2C 84V Opt G2	1010 117 32546	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 927 2C 42V Opt G2	1010 117 69646	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 927 2C 84V Opt G2	1010 117 69746	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 930 2C 42V Opt G2	1010 117 39746	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 930 2C 84V Opt G2	1010 117 39946	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 940 2C 42V Opt G2	1010 117 39846	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 940 2C 84V Opt G2	1010 117 40046	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 830 2C 42V Bsc G1	1010 117 37246	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 830 2C 84V Bsc G1	1010 117 37846	160	9600	603 x 266 x 83
LinLED 280x24mm 2000lm 840 2C 42V Bsc G1	1010 117 37346	180	19440	298 x 238 x 88
LinLED 560x24mm 4000lm 840 2C 84V Bsc G1	1010 117 37946	160	9600	603 x 266 x 83