

Linear LED modules 1100lm 24V 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 G3.1

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 70x20mm 275lm 840 2C 6V Opt G3.1	1010 127 79646	4000	280	296	300	5.5	1.5	191	40	600	C
LinLED 140x20mm 550lm 840 2C 12V Opt G3.1	1010 127 79746		280	592	600	11	3.1	191	40	600	C
LinLED 280x20mm 1100lm 840 2C 24V Opt G3.1	1010 127 79846		280	1183	1199	22	6.2	191	40	600	C
LinLED 560x20mm 2200lm 840 2C 48V Opt G3.1	1010 127 79946		280	2366	2398	44	12	191	40	600	C

LinLED CRI 90 Optimum G3.1

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 70x20mm 275lm 930 2C 6V Opt G3.1	1010 127 81446	3000	330	284	294	5.6	1.8	154	40	600	D
LinLED 140x20mm 550lm 930 2C 12V Opt G3.1	1010 127 81546		330	567	588	11	3.7	154	40	600	D
LinLED 280x20mm 1100lm 930 2C 24V Opt G3.1	1010 127 81646		330	1135	1176	22	7.4	154	40	600	D
LinLED 560x20mm 2200lm 930 2C 48V Opt G3.1	1010 127 81746	4000	330	2270	2352	45	15	154	40	600	D
LinLED 70x20mm 275lm 940 2C 6V Opt G3.1	1010 127 81846		330	303	314	5.6	1.8	165	40	600	C
LinLED 140x20mm 550lm 940 2C 12V Opt G3.1	1010 127 81946		330	606	628	11	3.7	165	40	600	D
LinLED 280x20mm 1100lm 940 2C 24V Opt G3.1	1010 127 82046		330	1212	1256	22	7.4	165	40	600	D
LinLED 560x20mm 2200lm 940 2C 48V Opt G3.1	1010 127 82146		330	2423	2511	45	15	165	40	600	D

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 70x20mm 275lm 830 2C 6V Opt G3	1010 127 20446	3000	280	268	277	5.5	1.5	175	40	800	C
LinLED 140x20mm 550lm 830 2C 12V Opt G3	1010 127 09246		280	536	553	11	3.1	175	40	800	C
LinLED 280x20mm 1100lm 830 2C 24V Opt G3	1010 127 09346		280	1073	1107	22	6.1	175	40	800	C
LinLED 560x20mm 2200lm 830 2C 48V Opt G3	1010 127 09446		280	2146	2214	44	12	175	40	800	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 70x20mm 275lm 830 2C 6V Opt G2	1010 127 19946	3000	280	271	281	5.6	1.6	175	40	600	C
LinLED 140x20mm 550lm 830 2C 12V Opt G2	1010 117 94046		280	543	562	11	3.2	172	40	600	C
LinLED 280x20mm 1100lm 830 2C 24V Opt G2	1010 117 44046		280	1086	1124	23	6.3	172	40	600	C
LinLED 560x20mm 2200lm 830 2C 48V Opt G2	1010 117 44246		280	2172	2247	45	13	172	40	600	C
LinLED 70x20mm 275lm 840 2C 6V Opt G2	1010 127 20046	4000	280	285	295	5.6	1.6	180	40	600	C
LinLED 140x20mm 550lm 840 2C 12V Opt G2	1010 117 94146		280	570	590	11	3.2	180	40	600	C
LinLED 280x20mm 1100lm 840 2C 24V Opt G2	1010 117 44146		280	1141	1180	23	6.3	180	40	600	C
LinLED 560x20mm 2200lm 840 2C 48V Opt G2	1010 117 44346		280	2281	2360	45	13	180	40	600	C

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	CIE _x	CIE _y
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 RI 80 Optimum G3

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>100 000	>100 000	98 000	89 000	44 000	39 000
	65°C	99 000	99 000	79 000	69 000	34 000	29 000
	85°C	99 000	99 000	69 000	59 000	29 000	25 000

calculated data based on LM80 LED data 10 000h)

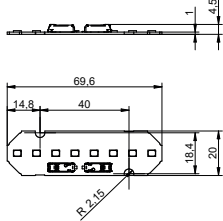
Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>100 000	>100 000	>100 000	>100 000	68 000	57 000
	55°C	>100 000	>100 000	>100 000	>100 000	68 000	57 000
	65°C	>100 000	>100 000	>100 000	>100 000	66 000	56 000
	75°C	>100 000	>100 000	>100 000	>100 000	64 000	55 000
	85°C	>100 000	>100 000	>100 000	>100 000	63 000	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)

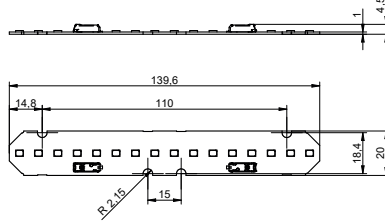
Linear LED modules 1100lm 24V per 1ft 2C

Dimensions

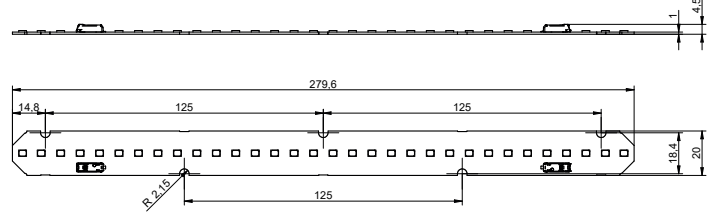
LinLED 70x20mm



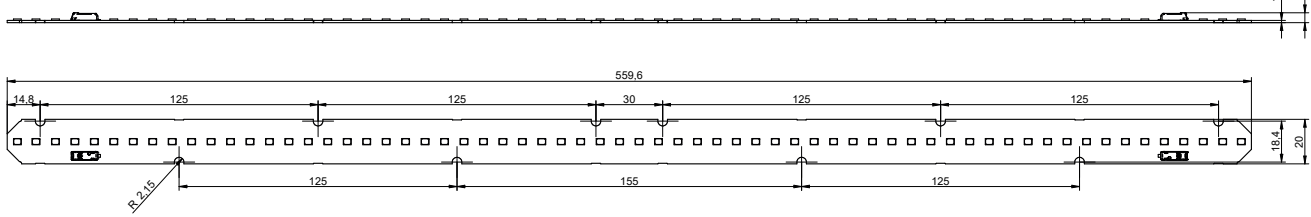
LinLED 140x20mm



LinLED 280x20mm



LinLED 560x20mm



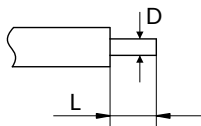
Mounting

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:



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:



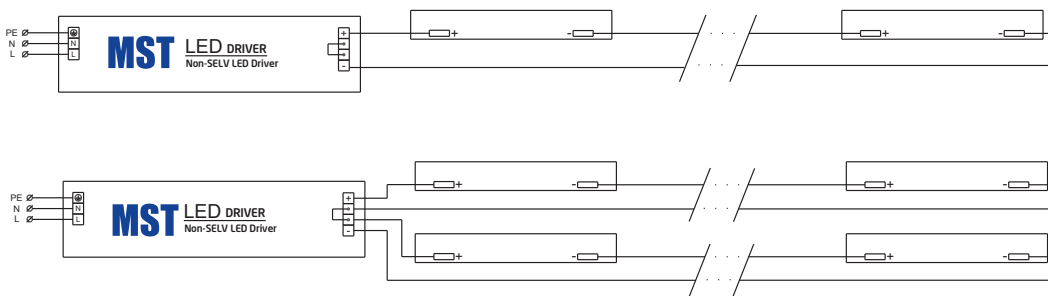
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Connections

Max number of modules	Unit	Series	Parallel
LinLED 70x20mm	[pcs]	53	-
LinLED 140x20mm	[pcs]	27	-
LinLED 280x20mm	[pcs]	13	-
LinLED 560x20mm	[pcs]	6	-

You can combine different lengths of LED modules so that the maximum length does not exceed 3780mm

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.

Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
LinLED 70x20mm 275lm 840 2C 6V Opt G3.1	1010 127 79646	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 840 2C 12V Opt G3.1	1010 127 79746	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 24V Opt G3.1	1010 127 79846	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 840 2C 48V Opt G3.1	1010 127 79946	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 930 2C 6V Opt G3.1	1010 127 81446	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 930 2C 12V Opt G3.1	1010 127 81546	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 930 2C 24V Opt G3.1	1010 127 81646	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 930 2C 48V Opt G3.1	1010 127 81746	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 940 2C 6V Opt G3.1	1010 127 81846	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 940 2C 12V Opt G3.1	1010 127 81946	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 940 2C 24V Opt G3.1	1010 127 82046	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 940 2C 48V Opt G3.1	1010 127 82146	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 830 2C 6V Opt G3	1010 127 20446	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 830 2C 12V Opt G3	1010 127 09246	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 24V Opt G3	1010 127 09346	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 830 2C 48V Opt G3	1010 127 09446	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 830 2C 6V Opt G2	1010 127 19946	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 830 2C 12V Opt G2	1010 117 94046	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 24V Opt G2	1010 117 44046	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 830 2C 48V Opt G2	1010 117 44246	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 840 2C 6V Opt G2	1010 127 20046	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 840 2C 12V Opt G2	1010 117 94146	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 24V Opt G2	1010 117 44146	192	23040	300 x 266 x 83
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