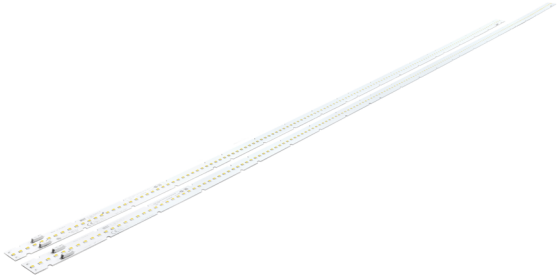
MST | *Your solutions*

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Linear LED modules 1100lm/1ft 2C+R

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+R - two connectors for series system, with integrated return path (two additional connectors) 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 1120x20mm 4400lm 830 2C+R 144V Opt G3	1010 117 84346	3000	175	4132	4262	128	22	185	30	600	C
LinLED 1400x20mm 5500lm 830 2C+R 180V Opt G3	1010 117 86446		175	5165	5327	160	28	185	30	600	C
LinLED 1120x20mm 4400lm 840 2C+R 144V Opt G3	1010 117 84446	4000	175	4477	4617	128	22	200	30	600	B
LinLED 1400x20mm 5500lm 840 2C+R 180V Opt G3	1010 117 86546		175	5596	5771	160	28	200	30	600	B

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 1120x20mm 4400lm 830 2C+R 144V Opt G2	1010 117 54046	3000	185	4275	4482	135	25	171	30	450	C
LinLED 1400x20mm 5500lm 830 2C+R 180V Opt G2	1010 117 54246		185	5415	5603	167	31	176	30	450	C
LinLED 1120x20mm 4400lm 840 2C+R 144V Opt G2	1010 117 54146	4000	185	4493	4708	135	25	180	30	450	C
LinLED 1400x20mm 5500lm 840 2C+R 180V Opt G2	1010 117 54346		185	5688	5885	167	31	184	30	450	C

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 1120x20mm 4400lm 830 2C+R 144V Bsc G1	1010 117 54446	3000	210	4258	4389	136	29	149	30	450	D
LinLED 1400x20mm 5500lm 830 2C+R 180V Bsc G1	1010 117 54646		210	5322	5487	170	36	149	30	450	D
LinLED 1120x20mm 4400lm 840 2C+R 144V Bsc G1	1010 117 54546	4000	210	4475	4614	136	29	157	30	450	D
LinLED 1400x20mm 5500lm 840 2C+R 180V Bsc G1	1010 117 54746		210	5594	5767	170	36	157	30	450	D

[1]At nominal current and Tp
[2]At nominal current and 25°C
[3]It is recommended not to operate below minimum current in order to avoid un-even brightness
Tolerance range for optical and electrical ±10%

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-condesing)	[%]	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

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Linear LED modules 1100lm/1ft 2C+R

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
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	45 000	41 000
	65°C	>60 000	>60 000	>60 000	>60 000	35 000	30 000
	85°C	>60 000	>60 000	>60 000	>60 000	30 000	25 000

reported data based on LM80 LED data 10 000h)

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	>102 000	>102 000	>102 000	>102 000	73 000	63 000
	55°C	>102 000	>102 000	>102 000	>102 000	73 000	63 000
	65°C	>102 000	>102 000	>102 000	>102 000	71 000	62 000
	75°C	>102 000	>102 000	>102 000	>102 000	70 000	61 000
	85°C	>102 000	>102 000	>102 000	>102 000	69 000	61 000
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	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	49 000	38 000	25 000
	55°C	>72 000	>72 000	>72 000	49 000	38 000	25 000
	65°C	>72 000	>72 000	>72 000	67 000	38 000	32 000
	75°C	>72 000	>72 000	>72 000	61 000	37 000	29 000
	85°C	>72 000	>72 000	>72 000	60 000	37 000	29 000

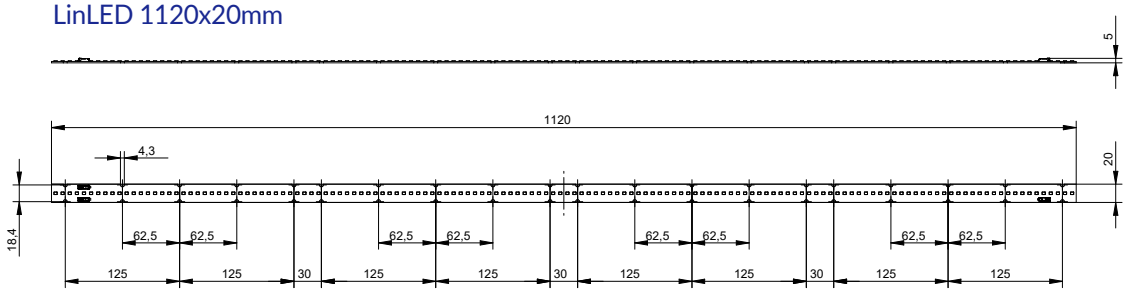
reported data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

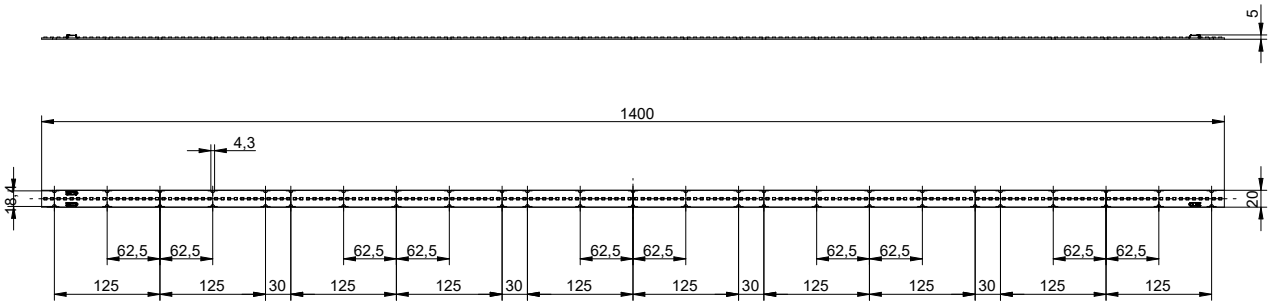
Linear LED modules 1100lm/1ft 2C+R

Dimensions

LinLED 1120x20mm



LinLED 1400x20mm



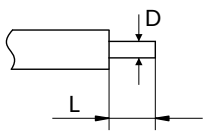
Mounting

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 creepeage 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
	0.2mm²	0.75mm²
	AWG 24	AWG 18

L - strip length	Min	Max
	8mm	9mm

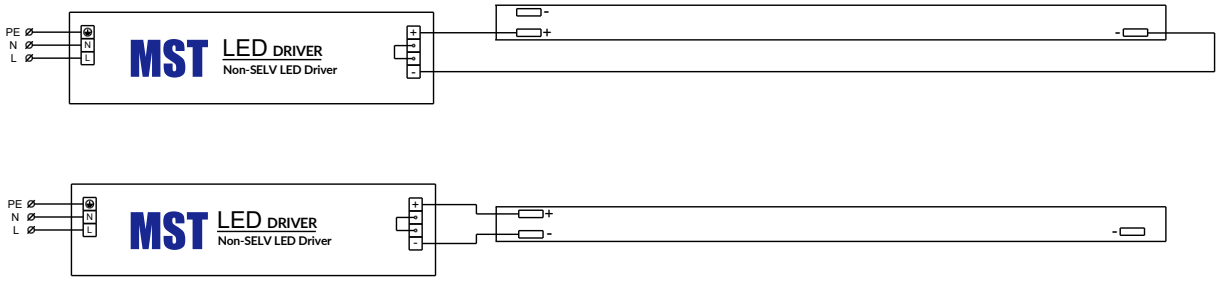
Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Linear LED modules 1100lm/1ft 2C+R

Connections

Wiring for series connection system with return path



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 1120x20mm 4400lm 830 2C+R 144V Opt G3	1010 117 84346	132	3960	1138 x 236 x 70
LinLED 1400x20mm 5500lm 830 2C+R 180V Opt G3	1010 117 86446	132	3960	1418 x 236 x 70
LinLED 1120x20mm 4400lm 840 2C+R 144V Opt G3	1010 117 84446	132	3960	1138 x 236 x 70
LinLED 1400x20mm 5500lm 840 2C+R 180V Opt G3	1010 117 86546	132	3960	1418 x 236 x 70
LinLED 1120x20mm 4400lm 830 2C+R 144V Opt G2	1010 117 54046	132	3960	1138 x 236 x 70
LinLED 1400x20mm 5500lm 830 2C+R 180V Opt G2	1010 117 54246	132	3960	1418 x 236 x 70
LinLED 1120x20mm 4400lm 840 2C+R 144V Opt G2	1010 117 54146	132	3960	1138 x 236 x 70
LinLED 1400x20mm 5500lm 840 2C+R 180V Opt G2	1010 117 54346	132	3960	1418 x 236 x 70
LinLED 1120x20mm 4400lm 830 2C+R 144V Bsc G1	1010 117 54446	132	3960	1138 x 236 x 70
LinLED 1400x20mm 5500lm 830 2C+R 180V Bsc G1	1010 117 54646	132	3960	1418 x 236 x 70
LinLED 1120x20mm 4400lm 840 2C+R 144V Bsc G1	1010 117 54546	132	3960	1138 x 236 x 70
LinLED 1400x20mm 5500lm 840 2C+R 180V Bsc G1	1010 117 54746	132	3960	1418 x 236 x 70