

Linear LED modules 1100lm/1ft 4C

Product description

- Long life-time
- Re-workable push-in terminals enabling easy connection
- Compliance and approval : ENEC, CE
- Small colour tolerance (MacAdam3)
- Tolerance range for optical and electrical $\pm 10\%$
- 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 Optimum CRI 80

Product name	Ordering code	Colour temp. [K]	If nominal [mA]	Luminous flux @ If nom & Tp Φ [lm]	Voltage @ If nom & Tp Vf [V]	Power @ If nom & Tp P [W]	Efficiency @ If nom & Tp [lm/W]	Max. current If [mA]
LinLED 280x20mm 1100lm 830 4C 36V Opt G2	101011732646	3000	185	1053	34	6,2	169	450
LinLED 560x20mm 2200lm 830 4C 36V Opt G2	101011733246		370	2105	34	12	169	900
LinLED 280x20mm 1100lm 840 4C 36V Opt G2	101011732746	4000	185	1106	34	6,2	177	450
LinLED 560x20mm 2200lm 840 4C 36V Opt G2	101011733346		370	2213	34	12	177	900

LinLED Optimum CRI 90

Product name	Ordering code	Colour temp. [K]	If nominal [mA]	Luminous flux @ If nom & Tp Φ [lm]	Voltage @ If nom & Tp Vf [V]	Power @ If nom & Tp P [W]	Efficiency @ If nom & Tp [lm/W]	Max. current If [mA]
LinLED 280x20mm 1100lm 927 4C 36V Opt G2	101011769946	2700	210	964	34	7,1	135	450
LinLED 560x20mm 2200lm 927 4C 36V Opt G2	101011770046		420	1928	34	14	135	900
LinLED 280x20mm 1100lm 930 4C 36V Opt G2	101011740146	3000	210	1035	34	7,1	145	450
LinLED 560x20mm 2200lm 930 4C 36V Opt G2	101011740746		420	2071	34	14	145	900
LinLED 280x20mm 1100lm 940 4C 36V Opt G2	101011740246	4000	210	1107	34	7,1	155	450
LinLED 560x20mm 2200lm 940 4C 36V Opt G2	101011740846		420	2213	34	14	155	900

LinLED Basic CRI 80

Product name	Ordering code	Colour temp. [K]	If nominal [mA]	Luminous flux @ If nom & Tp Φ [lm]	Voltage @ If nom & Tp Vf [V]	Power @ If nom & Tp P [W]	Efficiency @ If nom & Tp [lm/W]	Max. current If [mA]
LinLED 280x20mm 1100lm 830 4C 36V Bsc G1	101011738046	3000	210	1048	34	7,1	147	450
LinLED 560x20mm 2200lm 830 4C 36V Bsc G1	101011738646		420	2097	34	14	147	900
LinLED 280x20mm 1100lm 840 4C 36V Bsc G1	101011738146	4000	210	1102	34	7,1	155	450
LinLED 560x20mm 2200lm 840 4C 36V Bsc G1	101011738746		420	2204	34	14	155	900

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Temperatures

Specification item

Tp	45°C	Temperature related to the performance parameters of the LED modules
Tp rated	65°C	Maximum operating temperature to which the rated performance characteristics are declared
Tc	85°C	Highest permissible value for safe operation

Electrical & Optical data

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

Certificates & standards

Specification item	Compliant
ENEC	Yes
CE	Yes
RoHS	Yes
REACH	Yes
Zhaga	Comply with Book 7
IP rating	No Ip rating
Overheating protection	No

Lumen maintenance

LinLED CRI 80

Forward current	Tp temperature	L70		L80		L90	
		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

simulation based on LM80 LED data (10,000h)

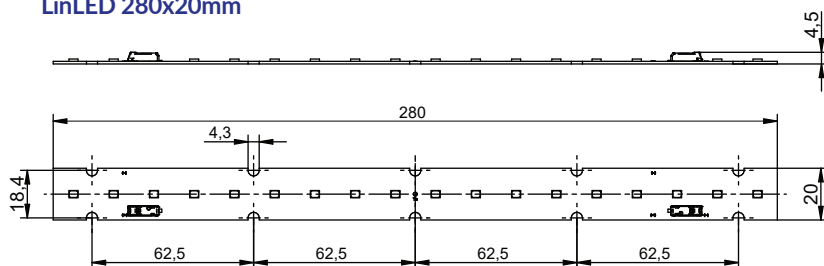
LinLED CRI 90

Forward current	Tp temperature	L70		L80		L90	
		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

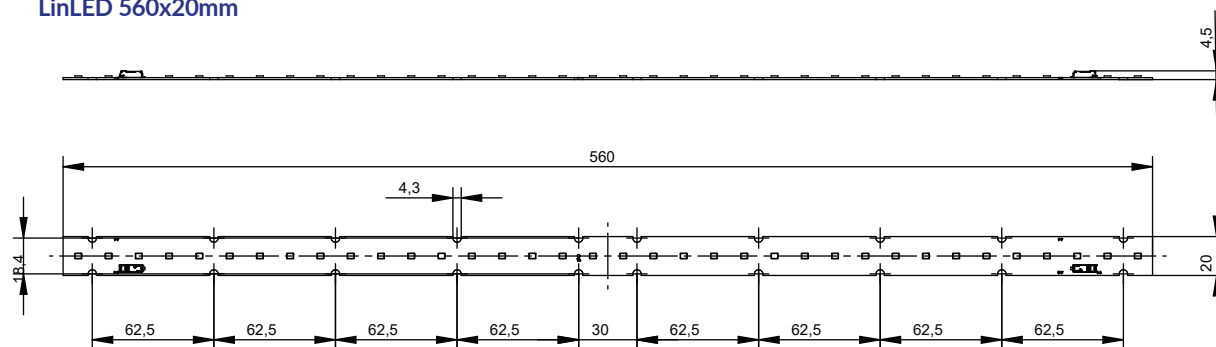
Linear LED modules 1100lm/1ft 4C

Dimensions

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

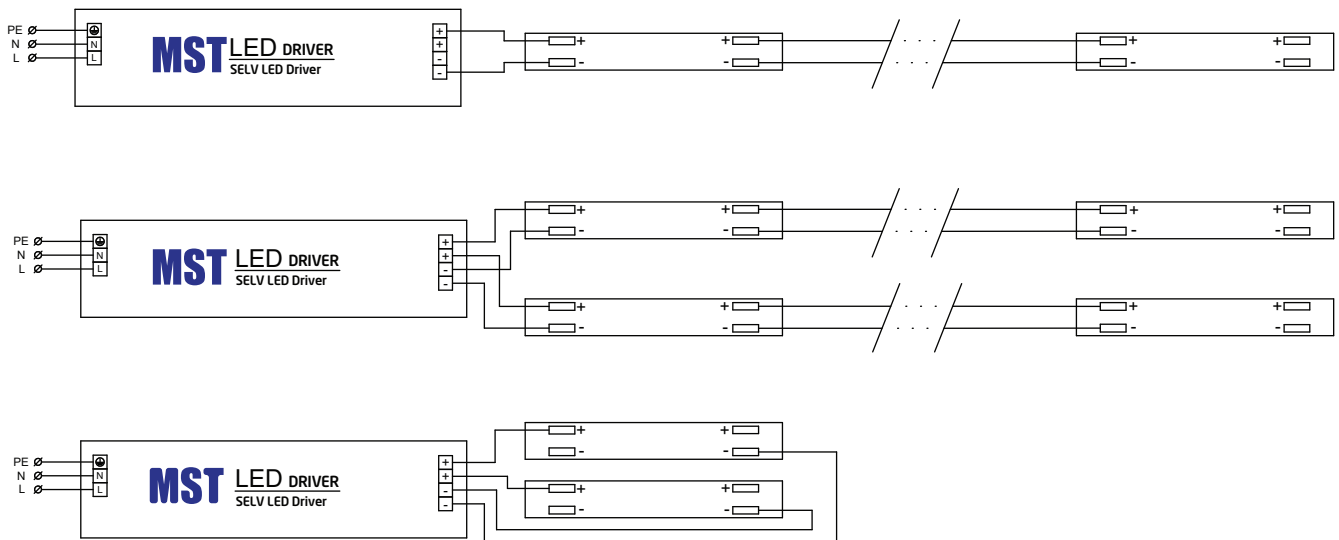
Linear LED modules 1100lm/1ft 4C

Connections

Wiring for parallel connection system (4C)

$$I_{LED module} = I_{driver}$$

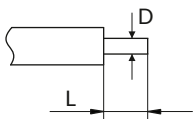
$$U_{driver} = U_{f LED module} * \text{Number of modules}$$



The maximum number of LED modules parallel connected is limited due to track resistance and must not exceed 6 of 1ft modules in one chain
Building second chain allow to connect more LED modules

Wiring

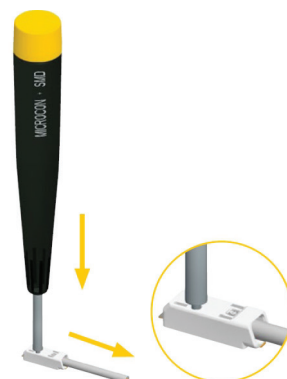
Wire cross section and strip length:



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

	Min	Max
L - strip length	8mm	9mm

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



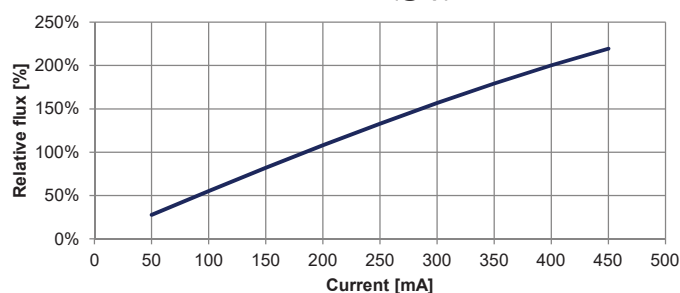
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Performance

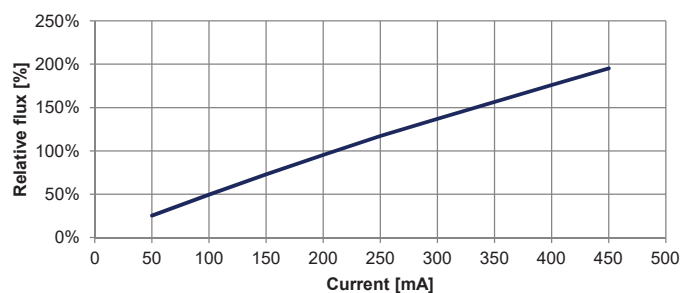
LinLED CRI 80

LinLED CRI 90

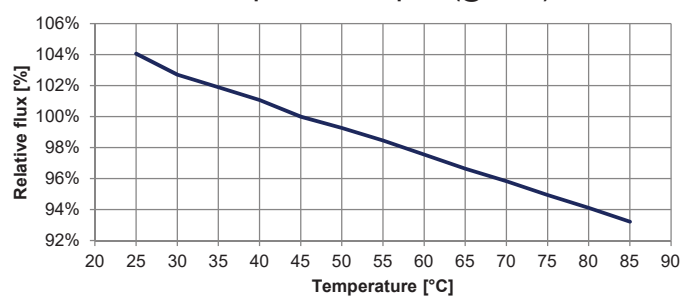
Flux vs current (@Tp)



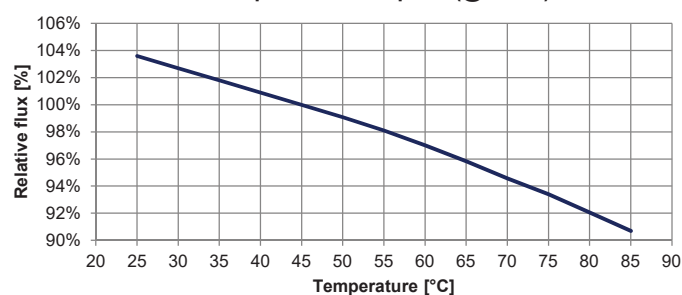
Flux vs current (@Tp)



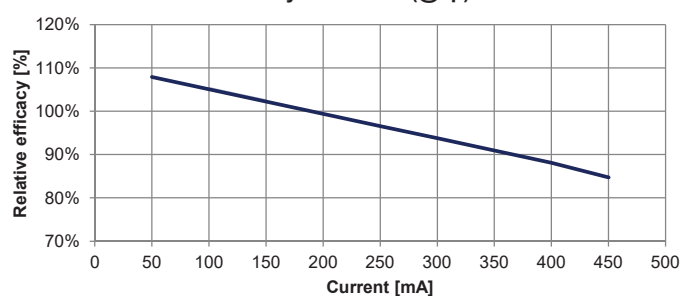
Flux vs temperature at Tc point (@ I nom)



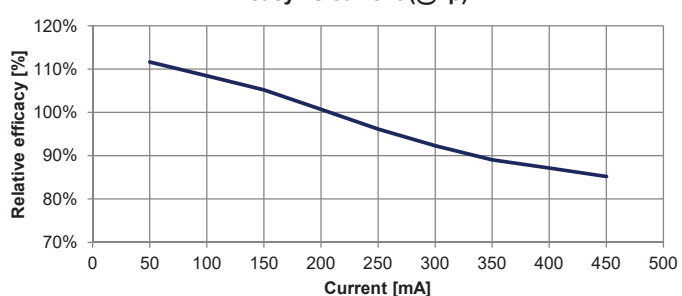
Flux vs temperature at Tc point (@ I nom)



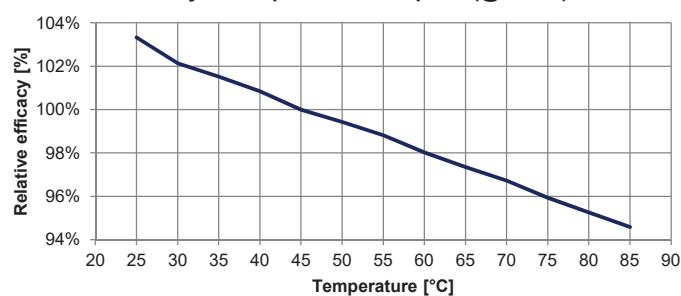
Efficacy vs current (@Tp)



Efficacy vs current (@Tp)



Efficacy vs temperature at Tc point (@ I nom)



Efficacy vs temperature at Tc point (@ I nom)

