

Linear LED modules 550lm/1ft 2C

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 $\pm 10\%$
- 2C- two connectors for series connection system, also recognized as a high voltage system - non-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 140x20mm 275lm 830 2C 9V Opt G2	101011731046	3000	185	263	8,4	1,6	169	450
LinLED 280x20mm 550lm 830 2C 18V Opt G2	101011731446		185	526	17	3,1	169	450
LinLED 560x20mm 1100lm 830 2C 36V Opt G2	101011732046		185	1053	34	6,2	169	450
LinLED 140x20mm 275lm 840 2C 9V Opt G2	101011731146	4000	185	277	8,4	1,6	177	450
LinLED 280x20mm 550lm 840 2C 18V Opt G2	101011731546		185	553	17	3,1	177	450
LinLED 560x20mm 1100lm 840 2C 36V Opt G2	101011732146		185	1106	34	6,2	177	450

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 140x20mm 275lm 927 2C 9V Opt G2	101011733846	2700	210	241	8,5	1,8	135	450
LinLED 280x20mm 550lm 927 2C 18V Opt G2	101011734746		210	482	17	3,6	135	450
LinLED 560x20mm 1100lm 927 2C 36V Opt G2	101011735046		210	964	34	7,1	135	450
LinLED 140x20mm 275lm 930 2C 9V Opt G2	101011733946	3000	210	259	8,5	1,8	145	450
LinLED 280x20mm 550lm 930 2C 18V Opt G2	101011734846		210	518	17	3,6	145	450
LinLED 560x20mm 1100lm 930 2C 36V Opt G2	101011735146		210	1035	34	7,1	145	450
LinLED 140x20mm 275lm 940 2C 9V Opt G2	101011734046	4000	210	277	8,5	1,8	155	450
LinLED 280x20mm 550lm 940 2C 18V Opt G2	101011734946		210	553	17	3,6	155	450
LinLED 560x20mm 1100lm 940 2C 36V Opt G2	101011735246		210	1107	34	7,1	155	450

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 140x20mm 275lm 830 2C 9V Bsc G1	101011736446	3000	210	262	8,5	1,8	147	450
LinLED 280x20mm 550lm 830 2C 18V Bsc G1	101011736846		210	524	17	3,6	147	450
LinLED 560x20mm 1100lm 830 2C 36V Bsc G1	101011737446		210	1048	34	7,1	147	450
LinLED 140x20mm 275lm 840 2C 9V Bsc G1	101011736546	4000	210	275	8,5	1,8	155	450
LinLED 280x20mm 550lm 840 2C 18V Bsc G1	101011736946		210	551	17	3,6	155	450
LinLED 560x20mm 1100lm 840 2C 36V Bsc G1	101011737546		210	1102	34	7,1	155	450

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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 [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	>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)

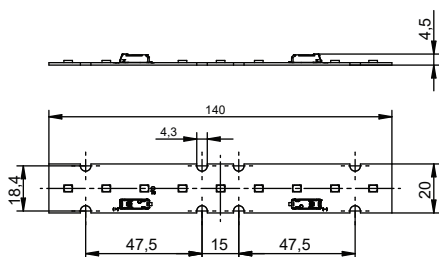
LinLED CRI 90

Forward current	Tp temperature	L70 [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	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

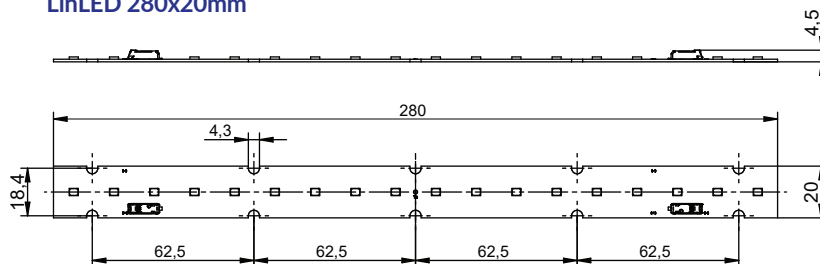
Linear LED modules 550lm/1ft 2C

Dimensions

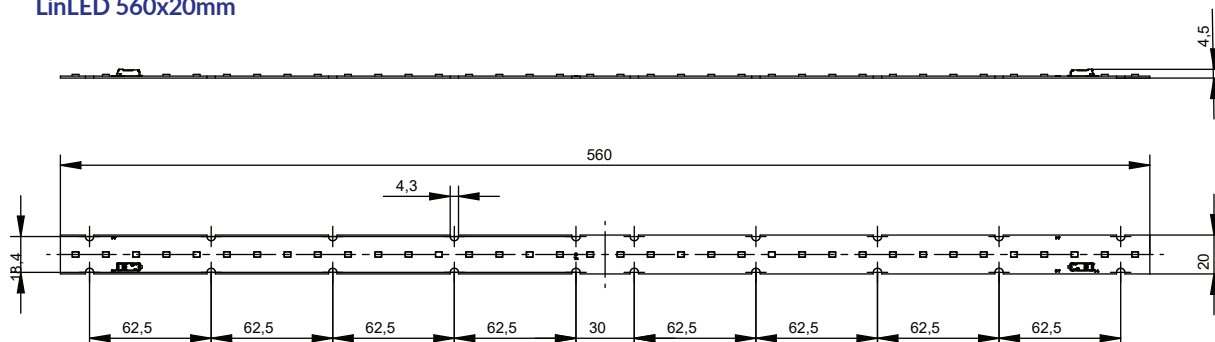
LinLED 140x20mm



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 creepeage distance between screw's head and surface of the pcb.

Max. torque for fixing: 0,5Nm

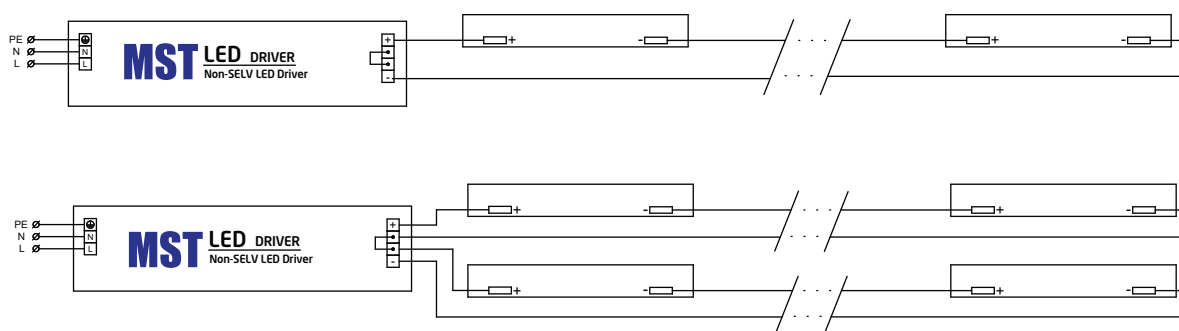
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Connections

Wiring for serial connection system (2C)

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

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

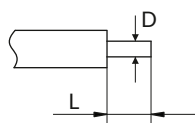


The maximum number of LED modules is limited due to the working voltage of the led module.

The sum of the supply voltages of the LED modules must not exceed the working voltage of the module

Wiring

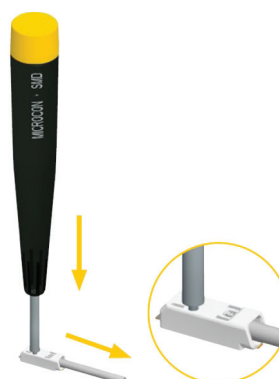
Wire cross section and strip length:



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

L - strip length	Min	Max
	8mm	9mm

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



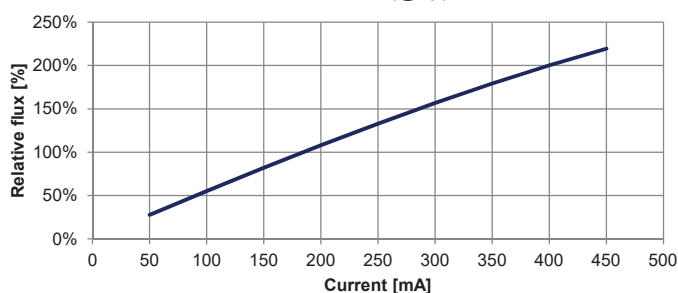
Linear LED modules 550lm/1ft 2C

Performance

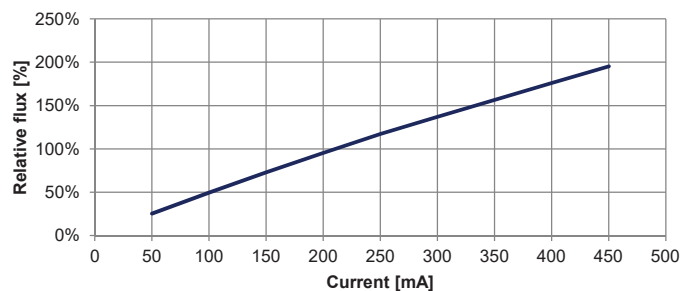
LinLED CRI 80

LinLED CRI 90

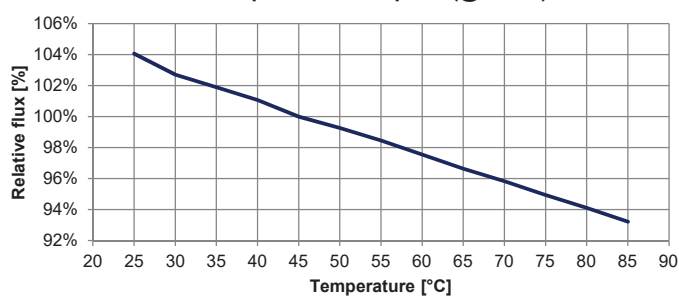
Flux vs current (@Tp)



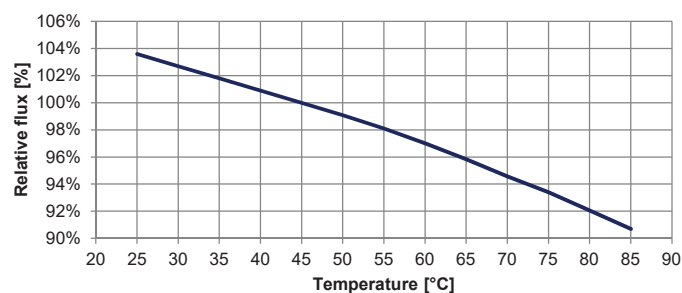
Flux vs current (@Tp)



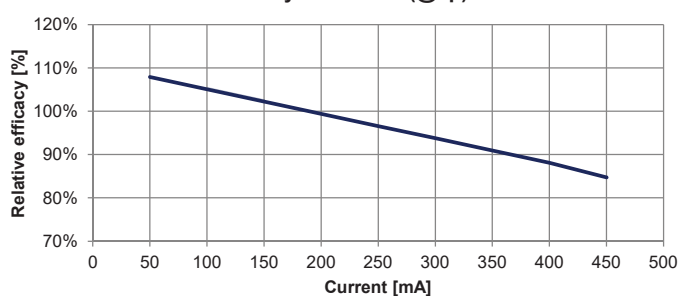
Flux vs temperature at Tc point (@ I nom)



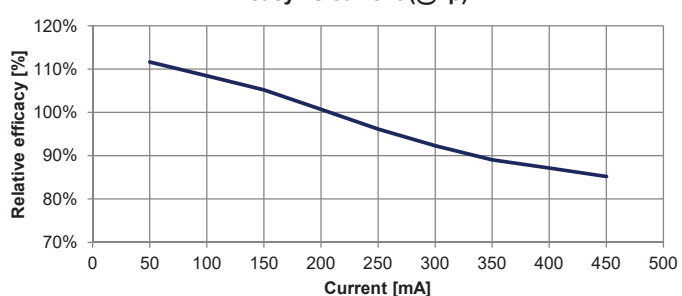
Flux vs temperature at Tc point (@ I nom)



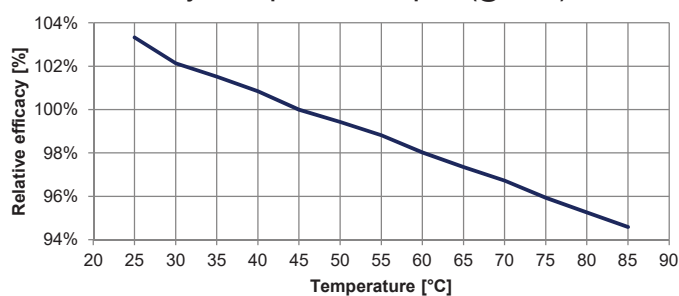
Efficacy vs current (@Tp)



Efficacy vs current (@Tp)



Efficacy vs temperature at Tc point (@ I nom)



Efficacy vs temperature at Tc point (@ I nom)

