

## Linear LED modules 156x28mm DAISY 4x1

A linear solution for premium class office lighting. Optimized for LEDiL DAISY 4x1 optics.

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 80, 90 and 95



### LinLED CRI 80

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux @ If nom & Tp Φ [lm]	Voltage @ If nom & Tp Vf [V]	Power @ If nom & Tp P [W]	Efficacy @ If nom & Tp [lm/W]	Current maximum If max [mA]
LinLED 156x28 2x200lm 827-865 2x2C 12V Opt G1	1010 117 46746	2700	110	193	12	1.3	151	150
		6500	110	209	12	1.3	163	150
LinLED 156x28 400lm 830 2C 12V Opt G1	1010 117 46846	3000	220	397	12	2.6	155	300
LinLED 156x28 400lm 840 2C 12V Opt G1	1010 117 46946	4000	220	418	12	2.6	163	300
LinLED 156x28 2x400lm 827-865 2x2C 12V Opt G1	1010 117 49846	2700	220	386	12	2.6	151	300
		6500	220	418	12	2.6	163	300
LinLED 156x28 800lm 830 2C 12V Opt G1	1010 117 49946	3000	440	794	12	5.1	155	600
LinLED 156x28 800lm 840 2C 12V Opt G1	1010 117 50046	4000	440	835	12	5.1	163	600

### LinLED CRI 90

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux @ If nom & Tp Φ [lm]	Voltage @ If nom & Tp Vf [V]	Power @ If nom & Tp P [W]	Efficacy @ If nom & Tp [lm/W]	Current maximum If max [mA]
LinLED 156x28 2x400lm 927-965 2x2C 12V Opt G1	1010 117 65446	2700	260	373	12	3.1	119	300
		6500	260	428	12	3.1	137	300
LinLED 156x28 800lm 940 2C 12V Opt G1	1010 117 75446	4000	485	806	12	5.8	139	600

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-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

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### Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031	[V]	built-in
Energy Efficiency Class		A++
Working voltage	[Vdc]	300
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Initial color coordinates		Acc. to CIE 1931
Photobiological safety		RG1 unlimited

### Certificates & standards

Specification item	Compliant
ENEC	No
CE	Yes
RoHS	Yes
REACH	Yes
Zhaga	No
IP rating	No IP rating

### 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	50 000
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

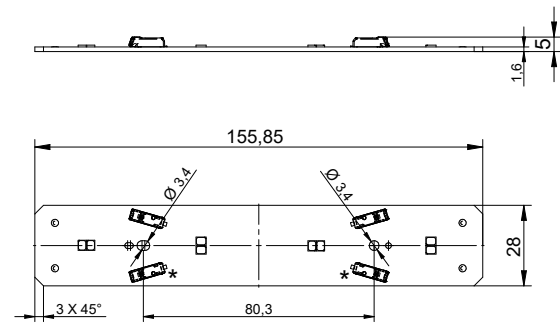
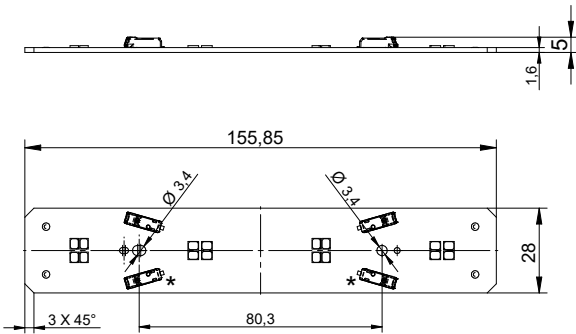
simulation based on LM80 LED data (10,000h)

#### 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	38 000	37 000
	55°C	>60 000	>60 000	>60 000	58 000	32 000	30 000
	65°C	>60 000	>60 000	52 000	48 000	26 000	24 000
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

## Linear LED modules 156x28mm DAISY 4x1

### Dimensions



12NC	Product name	Connectors ( *)
1010 117 65446	LinLED 156x28mm 2x400lm 927-965 2x2C 12V Opt G1	Yes
1010 117 49846	LinLED 156x28mm 2x400lm 827-865 2x2C 12V Opt G1	Yes
1010 117 49946	LinLED 156x28mm 800lm 830 2C 12V Opt G1	No
1010 117 50046	LinLED 156x28mm 800lm 840 2C 12V Opt G1	No
1010 117 75446	LinLED 156x28mm 800lm 930 2C 12V Opt G1	No

12NC	Product name	Connectors ( *)
1010 117 46746	LinLED 156x28mm 2x200lm 827-865 2x2C 12V Opt G1	Yes
1010 117 46846	LinLED 156x28mm 400lm 830 2C 12V Opt G1	No
1010 117 46946	LinLED 156x28mm 400lm 840 2C 12V Opt G1	No

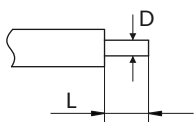
### Mounting

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

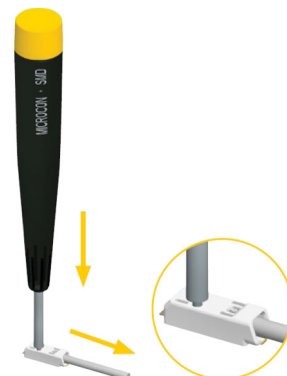
Wire cross section and strip length:



D - wire cross section <i>solid and flexible wires</i>	Min	Max
	0.2mm <sup>2</sup>	0.75mm <sup>2</sup>
	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:



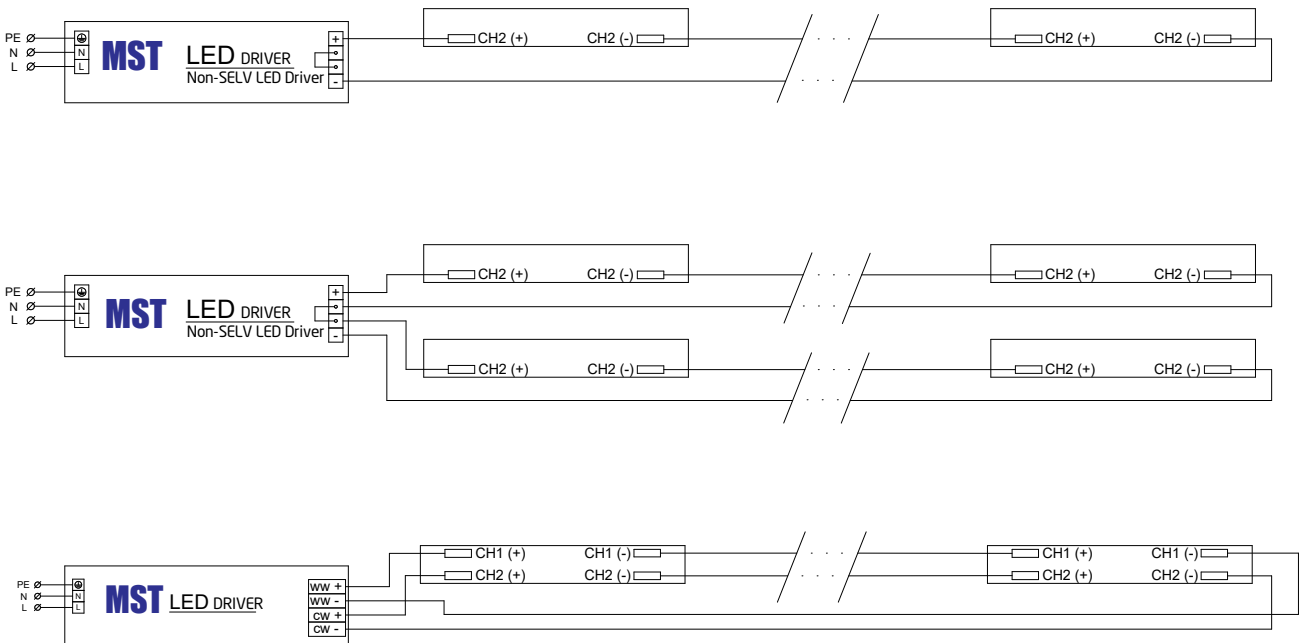
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### Connections

Specification item	Unit	Series	Parallel
Max number of modules	[pcs]	25	-

$$I_{\text{driver}} = I_{\text{LEDmodule}}$$

$$U_{\text{driver}} = U_{\text{LED module}} * n \quad n - \text{number of modules}$$



### Ordering codes

Specification item	Ordering code	Pieces per box	Pieces per pallet
LinLED 156x28 2x200lm 827-865 2x2C 12V Opt G1	1010 117 46746	96	18240
LinLED 156x28 400lm 830 2C 12V Opt G1	1010 117 46846	96	18240
LinLED 156x28 400lm 840 2C 12V Opt G1	1010 117 46946	96	18240
LinLED 156x28 2x400lm 827-865 2x2C 12V Opt G1	1010 117 49846	96	18240
LinLED 156x28 800lm 830 2C 12V Opt G1	1010 117 49946	96	18240
LinLED 156x28 800lm 840 2C 12V Opt G1	1010 117 50046	96	18240
LinLED 156x28 2x400lm 927-965 2x2C 12V Opt G1	1010 117 65446	96	18240
LinLED 156x28 800lm 930 2C 12V Opt G1	1010 117 75446	96	18240