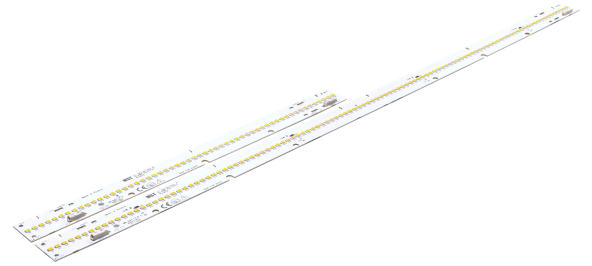


Linear LED modules 2000lm/1ft 2C

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 and 95



LinLED CRI 80 Optimum G3

| Product name | Ordering code | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux* Φ [lm] | Voltage* Vf [V] | Power* P [W] | Efficacy* [lm/W] | Current maximum If max [mA] |
|--|----------------|------------------------|-----------------------------|-----------------------|-----------------|--------------|------------------|-----------------------------|
| LinLED 280x24mm 2000lm 830 2C 42V Opt G3 | 1010 117 76646 | 3000 | 280 | 1877 | 38 | 11 | 177 | 600 |
| LinLED 560x24mm 4000lm 830 2C 84V Opt G3 | 1010 117 76846 | | 280 | 3755 | 76 | 21 | 177 | 600 |
| LinLED 280x24mm 2000lm 840 2C 42V Opt G3 | 1010 117 76746 | 4000 | 280 | 2064 | 38 | 11 | 194 | 600 |
| LinLED 560x24mm 4000lm 840 2C 84V Opt G3 | 1010 117 76946 | | 280 | 4129 | 76 | 21 | 194 | 600 |

LinLED CRI 80 Optimum G2

| Product name | Ordering code | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux* Φ [lm] | Voltage* Vf [V] | Power* P [W] | Efficacy* [lm/W] | Current maximum If max [mA] |
|--|----------------|------------------------|-----------------------------|-----------------------|-----------------|--------------|------------------|-----------------------------|
| LinLED 280x24mm 2000lm 830 2C 42V Opt G2 | 1010 117 31846 | 3000 | 280 | 1846 | 40 | 11 | 166 | 600 |
| LinLED 560x24mm 4000lm 830 2C 84V Opt G2 | 1010 117 32446 | | 280 | 3691 | 79 | 22 | 167 | 600 |
| LinLED 280x24mm 2000lm 840 2C 42V Opt G2 | 1010 117 31946 | 4000 | 280 | 1940 | 40 | 11 | 175 | 600 |
| LinLED 560x24mm 4000lm 840 2C 84V Opt G2 | 1010 117 32546 | | 280 | 3880 | 79 | 22 | 176 | 600 |

LinLED CRI 80 Basic G1

| Product name | Ordering code | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux* Φ [lm] | Voltage* Vf [V] | Power* P [W] | Efficacy* [lm/W] | Current maximum If max [mA] |
|--|----------------|------------------------|-----------------------------|-----------------------|-----------------|--------------|------------------|-----------------------------|
| LinLED 280x24mm 2000lm 830 2C 42V Bsc G1 | 1010 117 37246 | 3000 | 335 | 1926 | 40 | 13 | 144 | 600 |
| LinLED 560x24mm 4000lm 830 2C 84V Bsc G1 | 1010 117 37846 | | 335 | 3852 | 80 | 27 | 144 | 600 |
| LinLED 280x24mm 2000lm 840 2C 42V Bsc G1 | 1010 117 37346 | 4000 | 335 | 2085 | 40 | 13 | 151 | 600 |
| LinLED 560x24mm 4000lm 840 2C 84V Bsc G1 | 1010 117 37946 | | 335 | 4049 | 80 | 27 | 152 | 600 |

LinLED CRI 90 Optimum G2

| Product name | Ordering code | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux* Φ [lm] | Voltage* Vf [V] | Power* P [W] | Efficacy* [lm/W] | Current maximum If max [mA] |
|--|----------------|------------------------|-----------------------------|-----------------------|-----------------|--------------|------------------|-----------------------------|
| LinLED 280x24mm 2000lm 927 2C 42V Opt G2 | 1010 117 69646 | 2700 | 330 | 1680 | 41 | 13 | 130 | 600 |
| LinLED 560x24mm 4000lm 927 2C 84V Opt G2 | 1010 117 69746 | | 330 | 3490 | 81 | 27 | 130 | 600 |
| LinLED 280x24mm 2000lm 930 2C 42V Opt G2 | 1010 117 39746 | | 330 | 1874 | 41 | 13 | 140 | 600 |
| LinLED 560x24mm 4000lm 930 2C 84V Opt G2 | 1010 117 39946 | 3000 | 330 | 3748 | 81 | 27 | 140 | 600 |
| LinLED 280x24mm 2000lm 940 2C 42V Opt G2 | 1010 117 39846 | | 330 | 2003 | 41 | 13 | 149 | 600 |
| LinLED 560x24mm 4000lm 940 2C 84V Opt G2 | 1010 117 40046 | | 330 | 4007 | 81 | 27 | 149 | 600 |

*At nominal current and T_p

Tolerance range for optical and electrical ±10%

Linear LED modules 2000lm/1ft 2C

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 | [V] | built-in |
| Energy Efficiency Class | | A++ |
| 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 | Yes |
| CE | Yes |
| RoHS | Yes |
| REACH | Yes |
| Zhaga | Comply with Book 7 |
| IP rating | No IP rating |

Linear LED modules 2000lm/1ft 2C

Lumen maintenance

LinLED CRI 80

only for LinLED CRI 80 Optimum G3

| 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 | 39 000 | 35 000 |
| | 55°C | >60 000 | >60 000 | >60 000 | >60 000 | 34 000 | 29 000 |
| | 65°C | >60 000 | >60 000 | >60 000 | >60 000 | 29 000 | 25 000 |
| If max | 45°C | >60 000 | >60 000 | >60 000 | >60 000 | 35 000 | 30 000 |
| | 55°C | >60 000 | >60 000 | >60 000 | >60 000 | 30 000 | 27 000 |
| | 65°C | >60 000 | >60 000 | >60 000 | 55 000 | 25 000 | 25 000 |

reported data based on LM80 LED data (10 000h)

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 | 52 000 |
| 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 |

reported data based on LM80 LED data (10 000h)

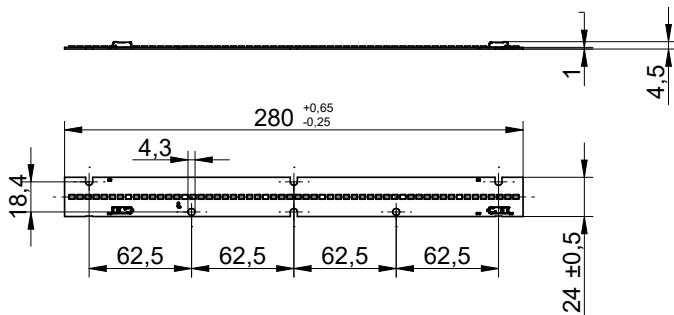
LinLED CRI 90

| 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 |

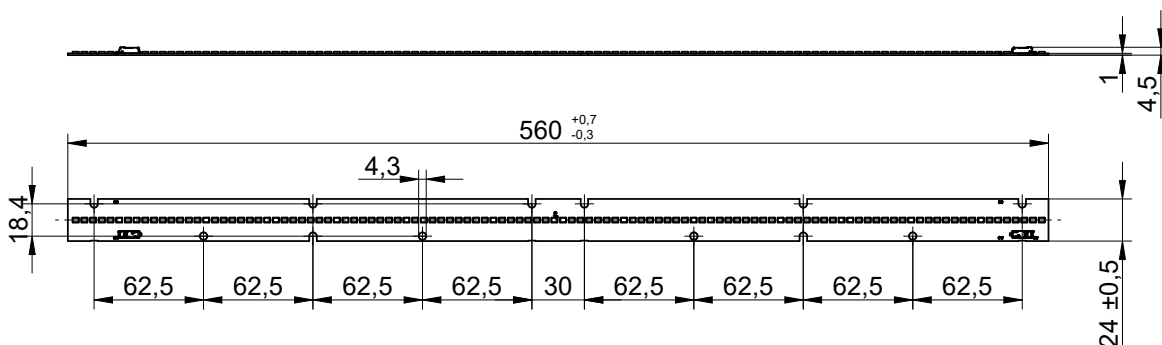
reported data based on LM80 LED data (10 000h)

Dimensions

LinLED 280x24mm



LinLED 560x24mm



Linear LED modules 2000lm/1ft 2C

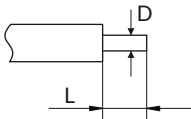
Mounting

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 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:

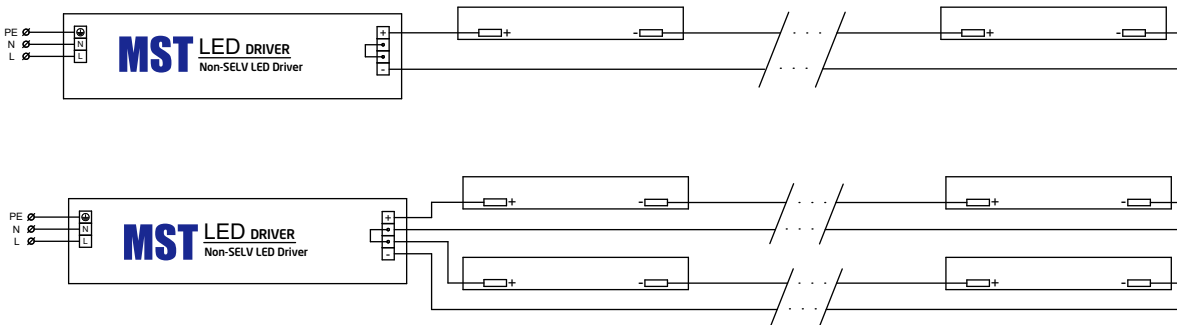


Connections

Wiring for serial connection system (2C)

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

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



The maximum number of LED modules is limited due to the working voltage of the single LED module.
The sum of the supply voltages of the LED modules must not exceed the working voltage of the single LED module.

Linear LED modules 2000lm/1ft 2C

Ordering codes

| Specification item | Ordering code | Pieces per box | Pieces per pallet | Box dimensions [mm] |
|--|----------------|----------------|-------------------|---------------------|
| LinLED 280x24mm 2000lm 830 2C 42V Opt G3 | 1010 117 76646 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 830 2C 84V Opt G3 | 1010 117 76846 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 840 2C 42V Opt G3 | 1010 117 76746 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 840 2C 84V Opt G3 | 1010 117 76946 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 830 2C 42V Opt G2 | 1010 117 31846 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 830 2C 84V Opt G2 | 1010 117 32446 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 840 2C 42V Opt G2 | 1010 117 31946 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 840 2C 84V Opt G2 | 1010 117 32546 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 830 2C 42V Bsc G1 | 1010 117 37246 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 830 2C 84V Bsc G1 | 1010 117 37846 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 840 2C 42V Bsc G1 | 1010 117 37346 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 840 2C 84V Bsc G1 | 1010 117 37946 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 927 2C 42V Opt G2 | 1010 117 69646 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 927 2C 84V Opt G2 | 1010 117 69746 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 930 2C 42V Opt G2 | 1010 117 39746 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 930 2C 84V Opt G2 | 1010 117 39946 | 132 | 5280 | 594 x 303 x 58 |
| LinLED 280x24mm 2000lm 940 2C 42V Opt G2 | 1010 117 39846 | 135 | 14580 | 298 x 238 x 88 |
| LinLED 560x24mm 4000lm 940 2C 84V Opt G2 | 1010 117 40046 | 132 | 5280 | 594 x 303 x 58 |