

Linear LED modules 550lm/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



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 140x20mm 275lm 830 2C 9V Opt G3 | 1010 117 83746 | 3000 | 175 | 256 | 261 | 8.0 | 1.4 | 182 | 30 | 600 | C |
| LinLED 280x20mm 550lm 830 2C 18V Opt G3 | 1010 117 83846 | | 175 | 511 | 522 | 16 | 2.8 | 182 | 30 | 600 | C |
| LinLED 560x20mm 1100lm 830 2C 36V Opt G3 | 1010 117 83946 | | 175 | 1022 | 1044 | 32 | 5.6 | 182 | 30 | 600 | C |
| LinLED 140x20mm 275lm 840 2C 9V Opt G3 | 1010 117 84046 | 4000 | 175 | 281 | 283 | 8.0 | 1.4 | 200 | 30 | 600 | B |
| LinLED 280x20mm 550lm 840 2C 18V Opt G3 | 1010 117 84146 | | 175 | 562 | 566 | 16 | 2.8 | 200 | 30 | 600 | C |
| LinLED 560x20mm 1100lm 840 2C 36V Opt G3 | 1010 117 84246 | | 175 | 1124 | 1159 | 32 | 5.6 | 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 140x20mm 275lm 830 2C 9V Opt G2 | 1010 117 31046 | 3000 | 185 | 263 | 272 | 8.4 | 1.6 | 169 | 30 | 450 | D |
| LinLED 280x20mm 550lm 830 2C 18V Opt G2 | 1010 117 31446 | | 185 | 526 | 545 | 17 | 3.1 | 169 | 30 | 450 | C |
| LinLED 560x20mm 1100lm 830 2C 36V Opt G2 | 1010 117 32046 | | 185 | 1053 | 1089 | 34 | 6.2 | 169 | 30 | 450 | C |
| LinLED 140x20mm 275lm 840 2C 9V Opt G2 | 1010 117 31146 | 4000 | 185 | 277 | 286 | 8.4 | 1.6 | 177 | 30 | 450 | C |
| LinLED 280x20mm 550lm 840 2C 18V Opt G2 | 1010 117 31546 | | 185 | 553 | 572 | 17 | 3.1 | 177 | 30 | 450 | C |
| LinLED 560x20mm 1100lm 840 2C 36V Opt G2 | 1010 117 32146 | | 185 | 1106 | 1144 | 34 | 6.2 | 177 | 30 | 450 | C |

LinLED CRI 90 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 140x20mm 275lm 927 2C 9V Opt G2 | 1010 117 33846 | 2700 | 210 | 241 | 250 | 8.5 | 1.8 | 135 | 30 | 450 | E |
| LinLED 280x20mm 550lm 927 2C 18V Opt G2 | 1010 117 34746 | | 210 | 482 | 499 | 17 | 3.6 | 135 | 30 | 450 | E |
| LinLED 560x20mm 1100lm 927 2C 36V Opt G2 | 1010 117 35046 | | 210 | 964 | 999 | 34 | 7.1 | 135 | 30 | 450 | E |
| LinLED 140x20mm 275lm 930 2C 9V Opt G2 | 1010 117 33946 | 3000 | 210 | 259 | 268 | 8.5 | 1.8 | 145 | 30 | 450 | D |
| LinLED 280x20mm 550lm 930 2C 18V Opt G2 | 1010 117 34846 | | 210 | 518 | 536 | 17 | 3.6 | 145 | 30 | 450 | D |
| LinLED 560x20mm 1100lm 930 2C 36V Opt G2 | 1010 117 35146 | | 210 | 1035 | 1073 | 34 | 7.1 | 145 | 30 | 450 | D |
| LinLED 140x20mm 275lm 940 2C 9V Opt G2 | 1010 117 34046 | 4000 | 210 | 277 | 287 | 8.5 | 1.8 | 155 | 30 | 450 | D |
| LinLED 280x20mm 550lm 940 2C 18V Opt G2 | 1010 117 34946 | | 210 | 553 | 573 | 17 | 3.6 | 155 | 30 | 450 | D |
| LinLED 560x20mm 1100lm 940 2C 36V Opt G2 | 1010 117 35246 | | 210 | 1107 | 1147 | 34 | 7.1 | 155 | 30 | 450 | D |

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 140x20mm 275lm 830 2C 9V Bsc G1 | 1010 117 36446 | 3000 | 210 | 262 | 284 | 8.5 | 1.8 | 147 | 30 | 450 | D |
| LinLED 280x20mm 550lm 830 2C 18V Bsc G1 | 1010 117 36846 | | 210 | 524 | 568 | 17 | 3.6 | 147 | 30 | 450 | D |
| LinLED 560x20mm 1100lm 830 2C 36V Bsc G1 | 1010 117 37446 | | 210 | 1048 | 1137 | 34 | 7.1 | 147 | 30 | 450 | D |
| LinLED 140x20mm 275lm 840 2C 9V Bsc G1 | 1010 117 36546 | 4000 | 210 | 275 | 300 | 8.5 | 1.8 | 155 | 30 | 450 | D |
| LinLED 280x20mm 550lm 840 2C 18V Bsc G1 | 1010 117 36946 | | 210 | 551 | 600 | 17 | 3.6 | 155 | 30 | 450 | D |
| LinLED 560x20mm 1100lm 840 2C 36V Bsc G1 | 1010 117 37546 | | 210 | 1102 | 1140 | 34 | 7.1 | 155 | 30 | 450 | D |

¹At nominal current and T_p

²At nominal current and 25°C

³It is recommended not to operate below minimum current in order to avoid un-even brightness

Tolerance range for optical and electrical ±10%

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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 | | built-in |
| Working voltage | [Vdc] | 350 |
| Beam angle | [deg] | 120 |
| Initial color consistency | [SDCM] | 3 |
| Photobiological safety | | RG1 unlimited |

Color coordinates

According to CIE 1931

| Specification item | CIE _x | CIE _y |
|--------------------|------------------|------------------|
| 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 & 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 | >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 | >72 000 | 69 000 | 43 000 |

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

LinLED CRI 90

for LinLED CRI 90 Optimum G2

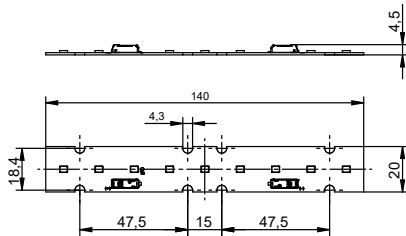
| Forward current | Tp temp. | L70 [h] | | L80 [h] | | L90 [h] | |
|-----------------|----------|---------|---------|---------|---------|---------|---------|
| | | B50 | B10 | B50 | B10 | B50 | B10 |
| If nom | 45°C | >60 000 | >60 000 | >60 000 | >60 000 | >60 000 | >60 000 |
| | 55°C | >60 000 | >60 000 | >60 000 | >60 000 | 55 000 | 54 000 |
| | 65°C | >60 000 | >60 000 | >60 000 | >60 000 | 43 000 | 38 000 |
| 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 |

reported data based on LM80 LED data 10 000h

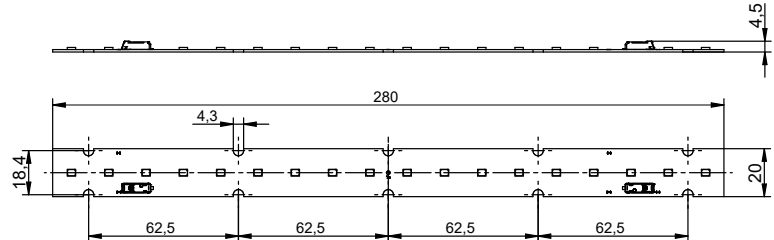
Linear LED modules 550lm/1ft 2C

Dimensions

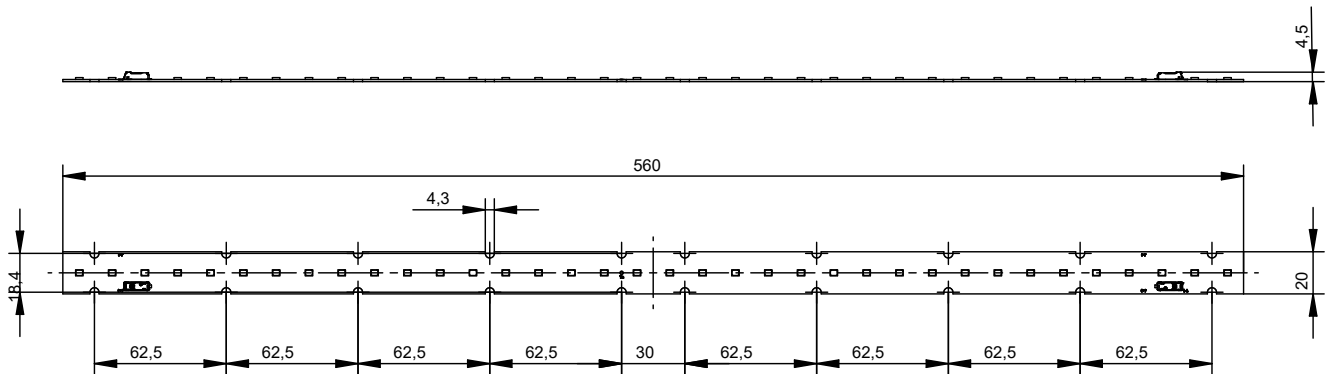
LinLED 140x20mm



LinLED 280x20mm



LinLED 560x20mm



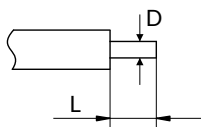
Mounting

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 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 (solid and flexible wires) | 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:

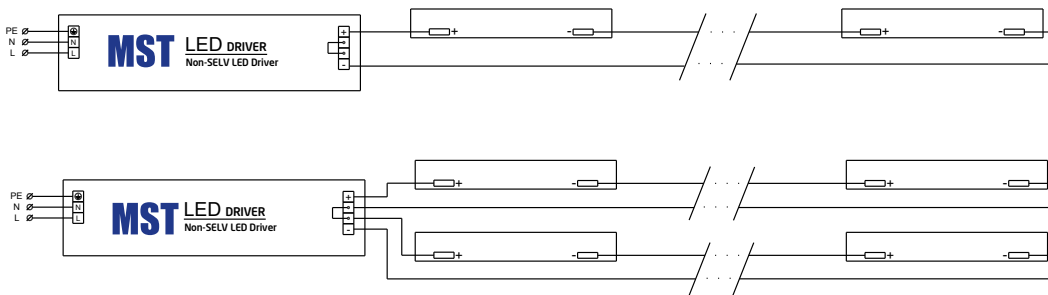


Linear LED modules 550lm/1ft 2C

Connections

| Max number of modules | Unit | Series | Parallel |
|-----------------------|-------|--------|----------|
| LinLED 140x20mm | [pcs] | 37 | - |
| LinLED 280x20mm | [pcs] | 18 | - |
| LinLED 560x20mm | [pcs] | 9 | - |

Wiring for series connection system (2C)



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 140x20mm 275lm 830 2C 9V Opt G3 | 1010 117 83746 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 830 2C 18V Opt G3 | 1010 117 83846 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 830 2C 36V Opt G3 | 1010 117 83946 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 840 2C 9V Opt G3 | 1010 117 84046 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 840 2C 18V Opt G3 | 1010 117 84146 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 840 2C 36V Opt G3 | 1010 117 84246 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 830 2C 9V Opt G2 | 1010 117 31046 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 830 2C 18V Opt G2 | 1010 117 31446 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 830 2C 36V Opt G2 | 1010 117 32046 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 840 2C 9V Opt G2 | 1010 117 31146 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 840 2C 18V Opt G2 | 1010 117 31546 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 840 2C 36V Opt G2 | 1010 117 32146 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 927 2C 9V Opt G2 | 1010 117 33846 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 927 2C 18V Opt G2 | 1010 117 34746 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 927 2C 36V Opt G2 | 1010 117 35046 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 930 2C 9V Opt G2 | 1010 117 33946 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 930 2C 18V Opt G2 | 1010 117 34846 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 930 2C 36V Opt G2 | 1010 117 35146 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 940 2C 9V Opt G2 | 1010 117 34046 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 940 2C 18V Opt G2 | 1010 117 34946 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 940 2C 36V Opt G2 | 1010 117 35246 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 830 2C 9V Bsc G1 | 1010 117 36446 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 830 2C 18V Bsc G1 | 1010 117 36846 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 830 2C 36V Bsc G1 | 1010 117 37446 | 154 | 8624 | 594 x 303 x 58 |
| LinLED 140x20mm 275lm 840 2C 9V Bsc G1 | 1010 117 36546 | 132 | 30096 | 248 x 175 x 58 |
| LinLED 280x20mm 550lm 840 2C 18V Bsc G1 | 1010 117 36946 | 187 | 20196 | 298 x 238 x 88 |
| LinLED 560x20mm 1100lm 840 2C 36V Bsc G1 | 1010 117 37546 | 154 | 8624 | 594 x 303 x 58 |