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Chrobrego 8, 11-400 Kętrzyn, Poland
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Linear LED modules 1100lm/1ft 4C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - 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 280x20mm 1100lm 830 4C 36V Opt G3	1010 117 84546	3000	175	1022	1044	32	5.6	182	30	600	C
LinLED 560x20mm 2200lm 830 4C 36V Opt G3	1010 117 84646		350	2044	2088	32	11	182	60	1200	C
LinLED 280x20mm 1100lm 840 4C 36V Opt G3	1010 117 84746	4000	175	1124	1159	32	5.6	200	30	600	B
LinLED 560x20mm 2200lm 840 4C 36V Opt G3	1010 117 84846		350	2247	2319	32	11	200	60	1200	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 280x20mm 1100lm 830 4C 36V Opt G2	1010 117 32646	3000	185	1053	1089	34	6.2	169	30	450	C
LinLED 560x20mm 2200lm 830 4C 36V Opt G2	1010 117 33246		370	2105	2178	34	12	169	60	900	C
LinLED 280x20mm 1100lm 840 4C 36V Opt G2	1010 117 32746	4000	185	1106	1144	34	6.2	177	30	450	C
LinLED 560x20mm 2200lm 840 4C 36V Opt G2	1010 117 33346		370	2213	2289	34	12	177	60	900	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 280x20mm 1100lm 927 4C 36V Opt G2	1010 117 69946	2700	210	974	999	34	7.1	136	30	450	E
LinLED 560x20mm 2200lm 927 4C 36V Opt G2	1010 117 70046		420	1948	1998	34	14	136	60	900	E
LinLED 280x20mm 1100lm 930 4C 36V Opt G2	1010 117 40146	3000	210	1035	1073	34	7.1	145	30	450	D
LinLED 560x20mm 2200lm 930 4C 36V Opt G2	1010 117 40746		420	2071	2146	34	14	145	60	900	D
LinLED 280x20mm 1100lm 940 4C 36V Opt G2	1010 117 40246	4000	210	1107	1147	34	7.1	155	30	450	D
LinLED 560x20mm 2200lm 940 4C 36V Opt G2	1010 117 40846		420	2213	2294	34	14	155	60	900	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 280x20mm 1100lm 830 4C 36V Bsc G1	1010 117 38046	3000	210	1048	1137	34	7.1	147	30	450	D
LinLED 560x20mm 2200lm 830 4C 36V Bsc G1	1010 117 38646		420	2097	2273	34	14	147	60	900	D
LinLED 280x20mm 1100lm 840 4C 36V Bsc G1	1010 117 38146	4000	210	1102	1200	34	7.1	155	30	450	D
LinLED 560x20mm 2200lm 840 4C 36V Bsc G1	1010 117 38746		420	2204	2401	34	14	155	60	900	D

[1]At nominal current and Tp
[2]At nominal current and 25°C
[3]It 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-condesing)	[%]	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]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Color coordinates

According to CIE 1931

Specification item	CIEx	CIEy
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	No
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

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>102 000	>102 000	>102 000	>102 000	73 000	63 000
	55°C	>102 000	>102 000	>102 000	>102 000	73 000	63 000
	65°C	>102 000	>102 000	>102 000	>102 000	71 000	62 000
	75°C	>102 000	>102 000	>102 000	>102 000	70 000	61 000
	85°C	>102 000	>102 000	>102 000	>102 000	69 000	61 000
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	69 000	43 000	34 000

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	52 000	51 000
	65°C	>60 000	>60 000	>60 000	>60 000	41 000	36 000
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

LinLED CRI 80

for 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	69 000	43 000	34 000

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

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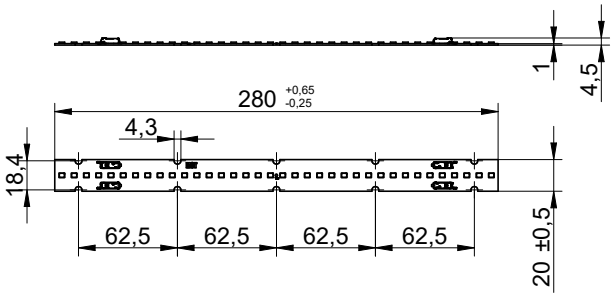
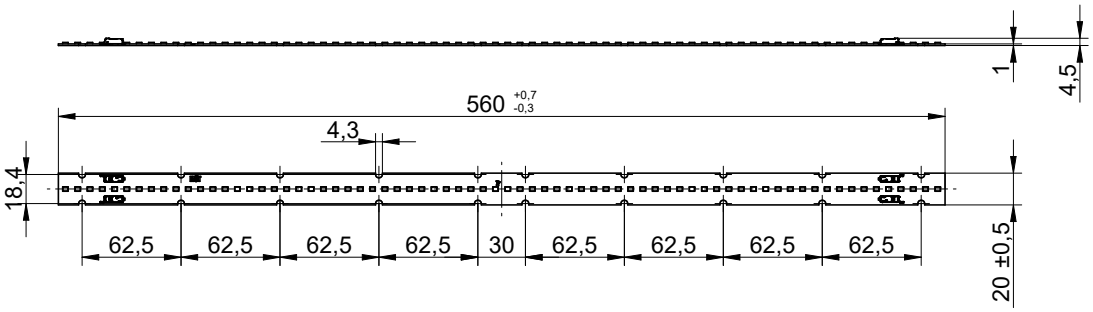
Dimensions

LinLED 280x20mm



LinLED 560x20mm



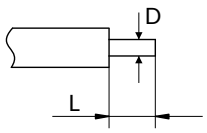
Mounting

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 creepeage 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
	0.2mm²	0.75mm²
	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:

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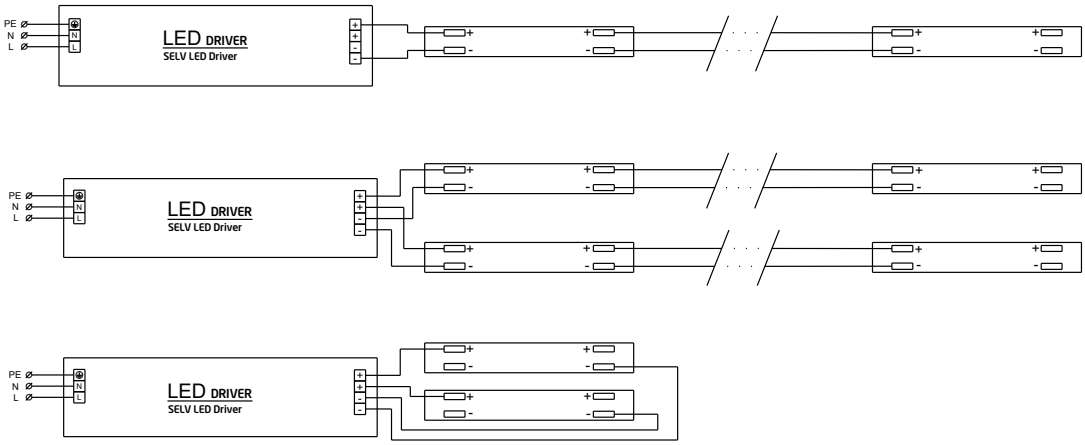
Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x20mm	[pcs]	-	8
LinLED 560x20mm	[pcs]	-	4

Wiring for parallel connection system (4C)



To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. "A", "B", "AB") is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

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 280x20mm 1100lm 830 4C 36V Opt G3	1010 117 84546	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 830 4C 36V Opt G3	1010 117 84646	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 840 4C 36V Opt G3	1010 117 84746	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 840 4C 36V Opt G3	1010 117 84846	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 830 4C 36V Opt G2	1010 117 32646	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 830 4C 36V Opt G2	1010 117 33246	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 840 4C 36V Opt G2	1010 117 32746	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 840 4C 36V Opt G2	1010 117 33346	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 927 4C 36V Opt G2	1010 117 69946	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 927 4C 36V Opt G2	1010 117 70046	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 930 4C 36V Opt G2	1010 117 40146	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 930 4C 36V Opt G2	1010 117 40746	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 940 4C 36V Opt G2	1010 117 40246	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 940 4C 36V Opt G2	1010 117 40846	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 830 4C 36V Bsc G1	1010 117 38046	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 830 4C 36V Bsc G1	1010 117 38646	154	8624	594 x 303 x 58
LinLED 280x20mm 1100lm 840 4C 36V Bsc G1	1010 117 38146	187	20196	298 x 238 x 88
LinLED 560x20mm 2200lm 840 4C 36V Bsc G1	1010 117 38746	154	8624	594 x 303 x 58

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