

Linear LED modules 1100lm per 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 70x20mm 275lm 830 2C 9V Opt G3	1010 127 21346	3000	175	256	264	8	1.4	182	30	600	C
LinLED 140x20mm 550lm 830 2C 18V Opt G3	1010 117 76146		175	511	522	16	2.8	182	30	600	C
LinLED 280x20mm 1100lm 830 2C 36V Opt G3	1010 117 76246		175	1022	1044	32	5.6	182	30	600	C
LinLED 560x20mm 2200lm 830 2C 72V Opt G3	1010 117 76346		175	2044	2088	64	11	182	30	600	C
LinLED 70x20mm 275lm 840 2C 9V Opt G3	1010 127 21446	4000	175	281	290	8	1.4	200	30	600	B
LinLED 140x20mm 550lm 840 2C 18V Opt G3	1010 117 76446		175	562	566	16	2.8	200	30	600	B
LinLED 280x20mm 1100lm 840 2C 36V Opt G3	1010 117 75046		175	1124	1131	32	5.6	200	30	600	B
LinLED 560x20mm 2200lm 840 2C 72V Opt G3	1010 117 75146		175	2247	2319	64	11	200	30	600	B

LinLED 24V/1ft 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 70x20mm 275lm 830 2C 6V Opt G3	1010 127 20446	3000	280	268	277	5.5	1.5	175	40	800	C
LinLED 140x20mm 550lm 830 2C 12V Opt G3	1010 127 09246		280	536	553	11	3.1	175	40	800	C
LinLED 280x20mm 1100lm 830 2C 24V Opt G3	1010 127 09346		280	1073	1107	22	6.1	175	40	800	C
LinLED 560x20mm 2200lm 830 2C 48V Opt G3	1010 127 09446		280	2146	2214	44	12	175	40	800	C
LinLED 70x20mm 275lm 840 2C 6V Opt G3	1010 127 20546	4000	280	291	300	5.5	1.5	190	40	800	C
LinLED 140x20mm 550lm 840 2C 12V Opt G3	1010 127 09546		280	581	600	11	3.1	190	40	800	C
LinLED 280x20mm 1100lm 840 2C 24V Opt G3	1010 127 09646		280	1162	1199	22	6.1	190	40	800	C
LinLED 560x20mm 2200lm 840 2C 48V Opt G3	1010 127 09746		280	2324	2398	44	12	190	40	800	C

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 70x20mm 275lm 830 2C 9V Opt G2	1010 127 20846	3000	185	263	272	8.4	1.6	169	30	450	D
LinLED 140x20mm 550lm 830 2C 18V Opt G2	1010 117 31246		185	526	545	17	3.1	169	30	450	C
LinLED 280x20mm 1100lm 830 2C 36V Opt G2	1010 117 31646		185	1053	1089	34	6.2	169	30	450	C
LinLED 560x20mm 2200lm 830 2C 72V Opt G2	1010 117 32246		185	2105	2178	67	12	170	30	450	C
LinLED 70x20mm 275lm 840 2C 9V Opt G2	1010 127 20946	4000	185	276	286	8.4	1.6	177	30	450	C
LinLED 140x20mm 550lm 840 2C 18V Opt G2	1010 117 31346		185	553	572	17	3.1	177	30	450	C
LinLED 280x20mm 1100lm 840 2C 36V Opt G2	1010 117 31746		185	1106	1144	34	6.2	177	30	450	C
LinLED 560x20mm 2200lm 840 2C 72V Opt G2	1010 117 32346		185	2213	2289	67	12	178	30	450	C

LinLED 24V/1ft 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 70x20mm 275lm 830 2C 6V Opt G2	1010 127 19946	3000	280	271	281	5.6	1.6	175	40	600	C
LinLED 140x20mm 550lm 830 2C 12V Opt G2	1010 117 94046		280	543	562	11	3.2	172	40	600	C
LinLED 280x20mm 1100lm 830 2C 24V Opt G2	1010 117 44046		280	1086	1124	23	6.3	172	40	600	C
LinLED 560x20mm 2200lm 830 2C 48V Opt G2	1010 117 44246		280	2172	2247	45	13	172	40	600	C
LinLED 70x20mm 275lm 840 2C 6V Opt G2	1010 127 20046	4000	280	285	295	5.6	1.6	180	40	600	C
LinLED 140x20mm 550lm 840 2C 12V Opt G2	1010 117 94146		280	570	590	11	3.2	180	40	600	C
LinLED 280x20mm 1100lm 840 2C 24V Opt G2	1010 117 44146		280	1141	1180	23	6.3	180	40	600	C
LinLED 560x20mm 2200lm 840 2C 48V Opt G2	1010 117 44346		280	2281	2360	45	13	180	40	600	C

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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 70x20mm 275lm 927 2C 9V Opt G2	1010 127 21046	2700	210	243	252	8.5	1.8	136	30	450	E
LinLED 140x20mm 275lm 927 2C 9V Opt G2	1010 117 33846		210	252	262	8.5	1.8	141	30	450	E
LinLED 280x20mm 550lm 927 2C 18V Opt G2	1010 117 34746		210	505	523	17	3.6	141	30	450	E
LinLED 560x20mm 1100lm 927 2C 36V Opt G2	1010 117 35046		210	1010	1047	34	7.1	141	30	450	E
LinLED 70x20mm 275lm 930 2C 9V Opt G2	1010 127 21146	3000	210	262	271	8.5	1.8	146	30	450	D
LinLED 140x20mm 275lm 930 2C 9V Opt G2	1010 117 33946		210	271	280	8.5	1.8	151	30	450	D
LinLED 280x20mm 1100lm 930 2C 36V Opt G2	1010 117 34846		210	541	561	17	3.6	151	30	450	D
LinLED 560x20mm 1100lm 930 2C 36V Opt G2	1010 117 35146		210	1082	1121	34	7.1	151	30	450	D
LinLED 280x20mm 550lm 935 2C 18V Opt G2	1010 127 23546	3500	210	559	579	17	3.6	156	30	450	D
LinLED 560x20mm 1100lm 935 2C 36V Opt G2	1010 127 12246		210	1118	1159	34	7.1	156	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 70x20mm 275lm 830 2C 9V Bsc G1	1010 127 20646	3000	210	262	271	8.5	1.8	146	30	450	D
LinLED 140x20mm 550lm 830 2C 18V Bsc G1	1010 117 36646		210	523	542	17	3.6	146	30	450	D
LinLED 280x20mm 1100lm 830 2C 36V Bsc G1	1010 117 37046		210	1046	579	34	7.1	146	30	450	D
LinLED 560x20mm 2200lm 830 2C 72V Bsc G1	1010 117 37646		210	2092	1084	68	14	146	30	450	D
LinLED 70x20mm 275lm 840 2C 9V Bsc G1	1010 127 20746	4000	210	280	290	8.5	1.8	156	30	450	D
LinLED 140x20mm 550lm 840 2C 18V Bsc G1	1010 117 36746		210	559	1159	17	3.6	156	30	450	D
LinLED 280x20mm 1100lm 840 2C 36V Bsc G1	1010 117 37146		210	1118	2168	34	7.1	156	30	450	D
LinLED 560x20mm 2200lm 840 2C 72V Bsc G1	1010 117 37746		210	2236	2318	68	14	156	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%

Temperature & humidity

Specification item	Unit	Value
T _p	[°C]	45
T _p rated	[°C]	65
T _c	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condensing)	[%]	5 ... 85

T_p - Temperature related to the performance parameters of the LED modules
T_p rated - Maximum operating temperature to which the rated performance characteristics are declared
T_c - 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

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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 & LinLED 24V/1ft 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	44 000	39 000
	65°C	>60 000	>60 000	>60 000	>60 000	34 000	29 000
	85°C	>60 000	>60 000	>60 000	59 000	29 000	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 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)

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 24V/1ft CRI 80 Optimum G2

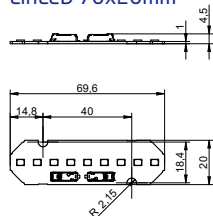
Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>72 000	>72 000	>72 000	>72 000	71 000	54 000
	55°C	>72 000	>72 000	>72 000	>72 000	71 000	54 000
	65°C	>72 000	>72 000	>72 000	>72 000	69 000	53 000
	75°C	>72 000	>72 000	>72 000	>72 000	68 000	52 000
	85°C	>72 000	>72 000	>72 000	>72 000	67 000	51 000
If max	45°C	>72 000	>72 000	>72 000	49 000	38 000	25 000
	55°C	>72 000	>72 000	>72 000	49 000	38 000	25 000
	65°C	>72 000	>72 000	>72 000	67 000	38 000	32 000
	75°C	>72 000	>72 000	>72 000	61 000	37 000	29 000
	85°C	>72 000	>72 000	>72 000	60 000	37 000	29 000

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

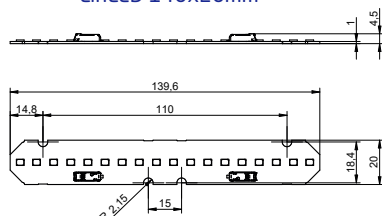
Linear LED modules 1100lm per 1ft 2C

Dimensions

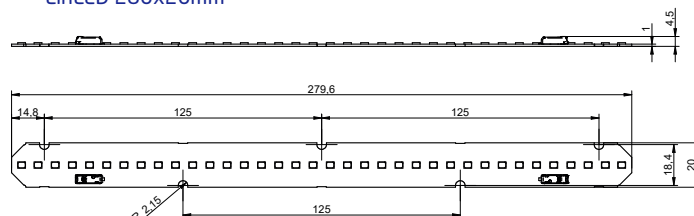
LinLED 70x20mm



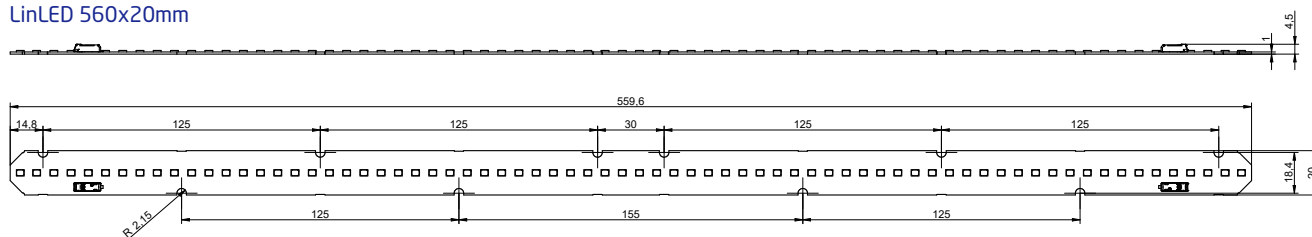
LinLED 140x20mm



LinLED 280x20mm

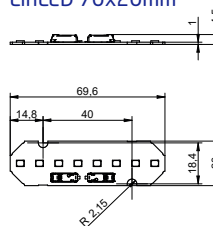


LinLED 560x20mm

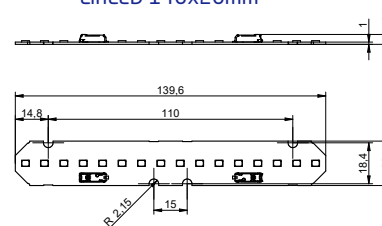


only for LinLED 24V/1ft

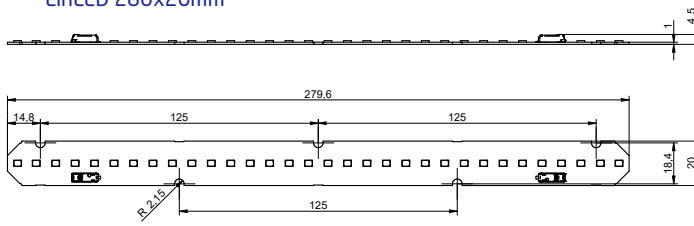
LinLED 70x20mm



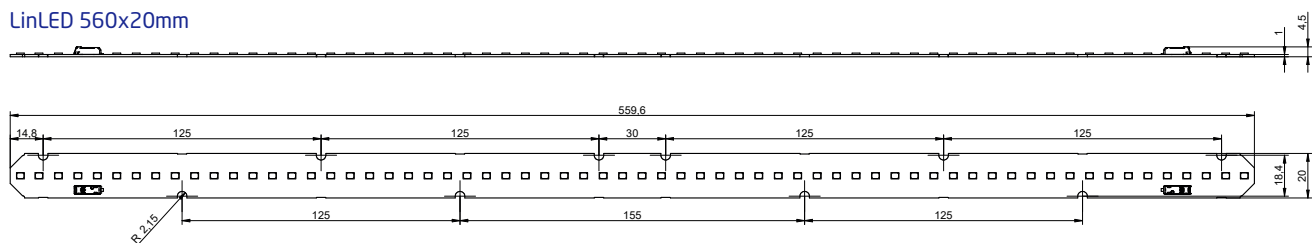
LinLED 140x20mm



LinLED 280x20mm



LinLED 560x20mm



Mounting

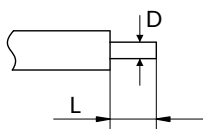
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max. torque for fixing: 0,5Nm.

LED modules are sensitive to electrostatic discharge (ESD). Follow safety regulations according to IEC 61340-5-1.

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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

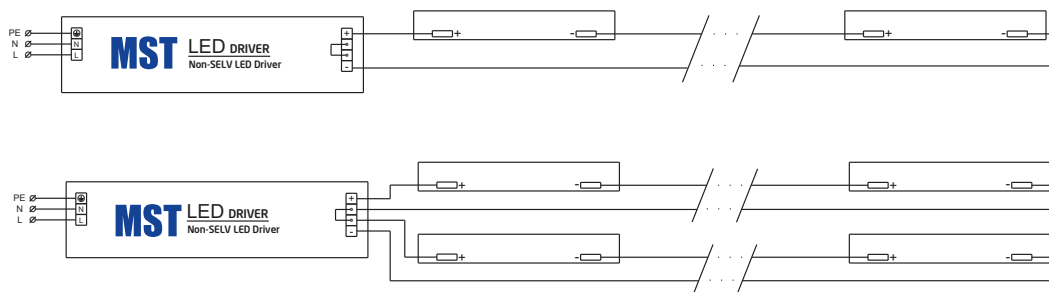
Opening for the release of wires from the top
with release pin Electroterminal art. 881 167 884:



Connections

Max number of modules	Unit	Series	Parallel
LinLED 70x20mm	[pcs]	38	-
LinLED 140x20mm	[pcs]	19	-
LinLED 280x20mm	[pcs]	9	-
LinLED 560x20mm	[pcs]	4	-

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.

Linear LED modules 1100lm per 1ft 2C

Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
LinLED 70x20mm 275lm 830 2C 9V Opt G3	1010 127 21346	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 830 2C 18V Opt G3	1010 117 76146	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 36V Opt G3	1010 117 76246	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 830 2C 72V Opt G3	1010 117 76346	192	11520	603 x 266 x 83
LinLED 70x20mm 275lm 840 2C 9V Opt G3	1010 127 21446	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 840 2C 18V Opt G3	1010 117 76446	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 36V Opt G3	1010 117 75046	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 840 2C 72V Opt G3	1010 117 75146	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 830 2C 6V Opt G3	1010 127 20446	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 830 2C 12V Opt G3	1010 127 09246	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 24V Opt G3	1010 127 09346	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 830 2C 48V Opt G3	1010 127 09446	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 840 2C 6V Opt G3	1010 127 20546	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 840 2C 12V Opt G3	1010 127 09546	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 24V Opt G3	1010 127 09646	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 840 2C 48V Opt G3	1010 127 09746	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 830 2C 9V Opt G2	1010 127 20846	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 830 2C 18V Opt G2	1010 117 31246	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 36V Opt G2	1010 117 31646	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 830 2C 72V Opt G2	1010 117 32246	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 840 2C 9V Opt G2	1010 127 20946	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 840 2C 18V Opt G2	1010 117 31346	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 36V Opt G2	1010 117 31746	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 840 2C 72V Opt G2	1010 117 32346	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 830 2C 6V Opt G2	1010 127 19946	198	47250	238 x 140 x 61
LinLED 140x20mm 5500lm 830 2C 12V Opt G2	1010 117 94046	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 24V Opt G2	1010 117 44046	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 830 2C 48V Opt G2	1010 117 44246	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 840 2C 6V Opt G2	1010 127 20046	198	47250	238 x 140 x 61
LinLED 140x20mm 5500lm 840 2C 12V Opt G2	1010 117 94146	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 24V Opt G2	1010 117 44146	192	23040	300 x 266 x 83
LinLED 560x20mm 2200lm 840 2C 48V Opt G2	1010 117 44346	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 927 2C 9V Opt G2	1010 127 21046	198	47250	238 x 140 x 61
LinLED 140x20mm 275lm 927 2C 9V Opt G2	1010 117 33846	132	30096	248 x 175 x 66
LinLED 280x20mm 550lm 927 2C 18V Opt G2	1010 117 34746	204	24480	300 x 266 x 83
LinLED 560x20mm 1100lm 927 2C 36V Opt G2	1010 117 35046	192	11520	603 x 266 x 83
LinLED 70x20mm 275lm 930 2C 9V Opt G2	1010 127 21146	198	47250	238 x 140 x 61
LinLED 140x20mm 275lm 930 2C 9V Opt G2	1010 117 33946	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 930 2C 36V Opt G2	1010 117 34846	204	24480	300 x 266 x 83
LinLED 560x20mm 1100lm 930 2C 36V Opt G2	1010 117 35146	192	11520	603 x 266 x 83
LinLED 280x20mm 550lm 935 2C 18V Opt G2	1010 127 23546	204	24480	300 x 266 x 83
LinLED 560x20mm 1100lm 935 2C 36V Opt G2	1010 127 12246	192	11520	603 x 266 x 83
LinLED 70x20mm 275lm 830 2C 9V Bsc G1	1010 127 20646	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 830 2C 18V Bsc G1	1010 117 36646	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 830 2C 36V Bsc G1	1010 117 37046	192	23040	300 x 266 x 83
LinLED 560x20mm 1100lm 830 2C 72V Bsc G1	1010 117 37646	154	8624	603 x 266 x 83
LinLED 70x20mm 275lm 840 2C 9V Bsc G1	1010 127 20746	198	47250	238 x 140 x 61
LinLED 140x20mm 550lm 840 2C 18V Bsc G1	1010 117 36746	132	30096	248 x 175 x 66
LinLED 280x20mm 1100lm 840 2C 36V Bsc G1	1010 117 37146	192	23040	300 x 266 x 83
LinLED 560x20mm 1100lm 840 2C 72V Bsc G1	1010 117 37746	154	8624	603 x 266 x 83