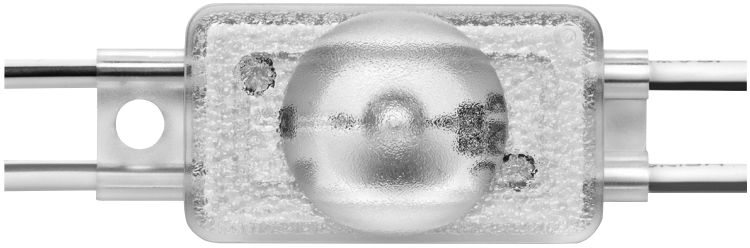
IP68 RoHS

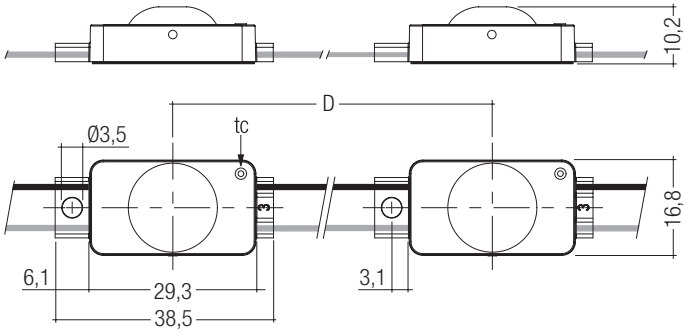
TALEXCchain CRYSTAL SELECT

TALEXCchain CRYSTAL

Product description

- LED chain for highlighting lines and edges and for backlighting complex contours, letters and symbols in signage applications
- Optimised for use in signage (lettering, surface backlighting)
- Beam characteristic: 155°
- LED module with plastic casing and strain relief with IP68 protection
- High-power LED in chip-on-board technology (COB)
- Integrated current source to stabilise luminous flux
- Flexible chain, can be split between any module
- Attached with M3 screw or premounted double-sided adhesive tape
- Connection: Cable 180 mm, both sides





Technical data

Ambient temperature ta	-30 ... +55 °C
Max. surface temperature on module tc①	65 °C
Type of protection④	IP68
Risk group (EN 62471:2008)	0

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Standards, page 4

Colour temperatures and tolerances, page 6, 7

Ordering data

Colour	Wavelength range	Colour temperature	Packing code	Type	Article number
1 light point per module					
Crystal white	–	7,500 K	1	**LED P550-SEL CW 12V 200 10 68 B000**	**22176602**
Crystal white	–	7,500 K	2	**LED P550-SEL CW 12V 200 100 68 B000**	**22176600**
Crystal white	–	7,500 K	2	**LED P550-SEL CW 12V 150 100 68 B000**	**22176611**
Daylight white	–	6,500 K	1	**LED P550-SEL DL 12V 200 10 68 B000**	**22176605**
Daylight white	–	6,500 K	2	**LED P550-SEL DL 12V 200 100 68 B000**	**22176673**
Daylight white	–	6,500 K	2	**LED P550-SEL DL 12V 150 100 68 B000**	**22176612**
Neutral white	–	4,200 K	1	**LED P550-SEL NW 12V 200 10 68 B000**	**22176618**
Neutral white	–	4,200 K	2	**LEDV P550-SEL NW 12 200 100 68 B**	**22176537**
Neutral white	–	4,200 K	2	**LED P550-SEL NW 12V 150 100 68 B000**	**22176622**
Warm white	–	3,000 K	1	**LED P550-SEL WW 12V 200 10 68 B000**	**22176625**
Warm white	–	3,000 K	2	**LED P550-SEL WW 12V 200 100 68 B000**	**22176676**
Warm white	–	3,000 K	2	**LED P550-SEL WW 12V 150 100 68 B000**	**22176626**
Yellow white	570 nm	–	1	**LED P550-SEL YW 12V 200 10 68 B000**	**22176623**
Yellow white	570 nm	–	2	**LED P550-SEL YW 12V 200 100 68 B000**	**22176632**
Yellow white	570 nm	–	2	**LED P550-SEL YW 12V 150 100 68 B000**	**22176624**
Red	626 – 636 nm	–	1	**LED P550-SEL R 12V 200 10 68 B000**	**22176606**
Red	626 – 636 nm	–	2	**LED P550-SEL R 12V 200 100 68 B000**	**22176682**
Red	626 – 636 nm	–	2	**LED P550-SEL R 12V 150 100 68 B000**	**22176613**
Green	525 – 540 nm	–	1	**LED P550-SEL G 12V 200 10 68 B000**	**22176617**
Green	525 – 540 nm	–	2	**LED P550-SEL G 12V 200 100 68 B000**	**22176683**
Green	525 – 540 nm	–	2	**LED P550-SEL G 12V 150 100 68 B000**	**22176619**
Blue	455 – 460 nm	–	1	**LED P550-SEL B 12V 200 10 68 B000**	**22176620**
Blue	455 – 460 nm	–	2	**LED P550-SEL B 12V 200 100 68 B000**	**22176684**
Blue	455 – 460 nm	–	2	**LED P550-SEL B 12V 150 100 68 B000**	**22176621**

Packaging code 1: 1 piece/bag, 100 pieces/carton, 600 pieces/pallet

Packaging code 2: 1 piece/roll, 30 pieces/carton, 180 pieces/pallet

Specific technical data

Type	Number of modules	Typ. luminous flux per module[2]	Colour rendering index CRI	Supply voltage DC[3]	Typ. current per module	Typ. power per module[2]	Luminous efficacy	Module distance D	Total length
1 light point per module									
LED P550-SEL CW 12V 200 10 68 B000	10	45 lm	72	12 V	47 mA	0.56 W	80 lm/W	200 mm	2,200 mm
LED P550-SEL CW 12V 200 100 68 B000	100	45 lm	72	12 V	47 mA	0.56 W	80 lm/W	200 mm	20,200 mm
LED P550-SEL CW 12V 150 100 68 B000	100	45 lm	72	12 V	47 mA	0.56 W	80 lm/W	150 mm	15,250 mm
LED P550-SEL DL 12V 200 10 68 B000	10	45 lm	72	12 V	47 mA	0.56 W	80 lm/W	200 mm	2,200 mm
LED P550-SEL DL 12V 200 100 68 B000	100	45 lm	72	12 V	47 mA	0.56 W	80 lm/W	200 mm	20,200 mm
LED P550-SEL DL 12V 150 100 68 B000	100	45 lm	72	12 V	47 mA	0.56 W	80 lm/W	150 mm	15,250 mm
LED P550-SEL NW 12V 200 10 68 B000	10	37 lm	85	12 V	47 mA	0.56 W	66 lm/W	200 mm	2,200 mm
LEDV P550-SEL NW 12 200 100 68 B	100	37 lm	85	12 V	47 mA	0.56 W	66 lm/W	200 mm	20,200 mm
LED P550-SEL NW 12V 150 100 68 B000	100	37 lm	85	12 V	47 mA	0.56 W	66 lm/W	150 mm	15,250 mm
LED P550-SEL WW 12V 200 10 68 B000	10	34 lm	88	12 V	47 mA	0.56 W	61 lm/W	200 mm	2,200 mm
LED P550-SEL WW 12V 200 100 68 B000	100	34 lm	88	12 V	47 mA	0.56 W	61 lm/W	200 mm	20,200 mm
LED P550-SEL WW 12V 150 100 68 B000	100	34 lm	88	12 V	47 mA	0.56 W	61 lm/W	150 mm	15,250 mm
LED P550-SEL YW 12V 200 10 68 B000	10	52 lm	–	12 V	47 mA	0.56 W	93 lm/W	200 mm	2,200 mm
LED P550-SEL YW 12V 200 100 68 B000	100	52 lm	–	12 V	47 mA	0.56 W	93 lm/W	200 mm	20,200 mm
LED P550-SEL YW 12V 150 100 68 B000	100	52 lm	–	12 V	47 mA	0.56 W	93 lm/W	150 mm	15,250 mm
LED P550-SEL R 12V 200 10 68 B000	10	12 lm	–	12 V	47 mA	0.56 W	21 lm/W	200 mm	2,200 mm
LED P550-SEL R 12V 200 100 68 B000	100	12 lm	–	12 V	47 mA	0.56 W	21 lm/W	200 mm	20,200 mm
LED P550-SEL R 12V 150 100 68 B000	100	12 lm	–	12 V	47 mA	0.56 W	21 lm/W	150 mm	15,250 mm
LED P550-SEL G 12V 200 10 68 B000	10	24 lm	–	12 V	35 mA	0.42 W	57 lm/W	200 mm	2,200 mm
LED P550-SEL G 12V 200 100 68 B000	100	24 lm	–	12 V	35 mA	0.42 W	57 lm/W	200 mm	20,200 mm
LED P550-SEL G 12V 150 100 68 B000	100	24 lm	–	12 V	35 mA	0.42 W	57 lm/W	150 mm	15,250 mm
LED P550-SEL B 12V 200 10 68 B000	10	8 lm	–	12 V	47 mA	0.56 W	14 lm/W	200 mm	2,200 mm
LED P550-SEL B 12V 200 100 68 B000	100	8 lm	–	12 V	47 mA	0.56 W	14 lm/W	200 mm	20,200 mm
LED P550-SEL B 12V 150 100 68 B000	100	8 lm	–	12 V	47 mA	0.56 W	14 lm/W	150 mm	15,250 mm

[1] If the max. temperature limits are exceeded, the life of the module will be greatly reduced or the module may be damaged.
For the precise position of the tc point see the above diagram.

[2] Tolerance range for optical and electrical data: ±15 % (optical data for blue: ±30 %).

[3] Exceeding the max. operating voltage leads to an overload on the TALEX(chain.
This may in turn result in a reduction in lifetime or even in destruction.
Tolerance range for the supply voltage: 12 V: +2 V / -0 V.

[4] Maximum submerge depth 1 m.

All values at ta = 25 °C.

Converter matrix – TALEXchain CRYSTAL SELECT

		IN-BUILT LCU					REMOTE LCU			
Type		LCU 015/12 D010	LCU 035/12 D010	LCU 060/12 D010	LCU 100/12 D010	LCU 150/12 D010	LCU 035/12 E020	LCU 060/12 E020	LCU 100/12 E020	LCU 150/12 E020
Article number		24166316	24166318	24166322	24166326	24166331	24166319	24166323	24166327	24166332
		Assignable converter					Assignable converter			
Type	Article number	Number of modules					Number of modules			Max. chaining
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
LED P550-SEL CW 12V 200 10 68 B000	22176602	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL CW 12V 200 100 68 B000	22176600	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL CW 12V 150 100 68 B000	22176611	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL DL 12V 200 10 68 B000	22176605	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL DL 12V 200 100 68 B000	22176673	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL DL 12V 150 100 68 B000	22176612	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL NW 12V 200 10 68 B000	22176618	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LEDV P550-SEL NW 12 200 100 68 B	22176537	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL NW 12V 150 100 68 B000	22176622	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL WW 12V 200 10 68 B000	22176625	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL WW 12V 200 100 68 B000	22176676	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL WW 12V 150 100 68 B000	22176626	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL YW 12V 200 10 68 B000	22176623	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL YW 12V 200 100 68 B000	22176632	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL YW 12V 150 100 68 B000	22176624	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL R 12V 200 10 68 B000	22176606	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL R 12V 200 100 68 B000	22176682	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL R 12V 150 100 68 B000	22176613	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL G 12V 200 10 68 B000	22176617	2	35	10	83	14	142	27	238	53	357	8	83	14	142	27	238	53	357	100
LED P550-SEL G 12V 200 100 68 B000	22176683	2	35	10	83	14	142	27	238	53	357	8	83	14	142	27	238	53	357	100
LED P550-SEL G 12V 150 100 68 B000	22176619	2	35	10	83	14	142	27	238	53	357	8	83	14	142	27	238	53	357	100
LED P550-SEL B 12V 200 10 68 B000	22176620	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL B 12V 200 100 68 B000	22176684	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100
LED P550-SEL B 12V 150 100 68 B000	22176621	2	26	7	62	10	107	20	178	40	267	6	62	10	107	20	178	40	267	100

The mentioned number of modules is based on the typical electrical values of LED module and converter.
In individual cases it is possible that the actual number of modules can be different to the values stated in the table because of the tolerance of electrical values.

Standards

- EN 62031
- EN 62471

The product meets the “inbuilt LED module“ classification according to EN 62031.
The product passed the glow-wire test with 650 °C according to EN 62031.

Certificates

- UL file: e313318
- CSA certificate: 249699

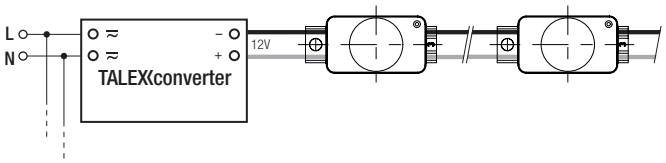
Thermal behaviour

operation temperature (operation, no defects)	ta	- 30 → + 55 °C
storage temperature	ts	- 30 → + 80 °C
max. temperature tc point	tc	- 30 → + 65 °C

The values apply to operation at 100 % output, natural convection.
If the maximum temperature limits are exceeded, the life of the module will be greatly reduced. The module can fail within a short time. The tc point temperature of the module has to be measured in the thermally stable state and under operating conditions. Measurement setup e.g. according to IEC/EN 60598-1.

tc temperature in °C	Luminous flux in %	Life time in h
15	80	32.000
	70	52.000
	50	100.000
35	80	30.000
	70	50.000
	50	95.000
65	80	25.000
	70	45.000
	50	80.000

Wiring example TALEX(chain CRYSTAL SELECT



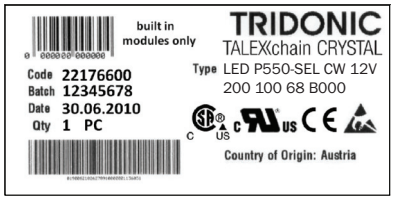
Empirical values for decrease of luminous flux over the chain

Colour	Module distance 150 mm	Module distance 200 mm	Number of modules
white	23 %	37 %	100
red	0 %	0 %	100
green	45 %	53 %	100
blue	23 %	37 %	100

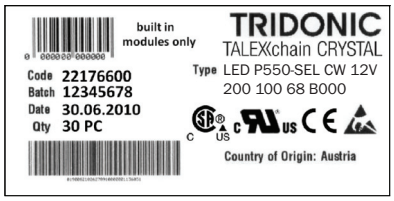
Label product

① Type
② Electr. specification
③ Article code
④ Production batch
⑤ Normative symbols

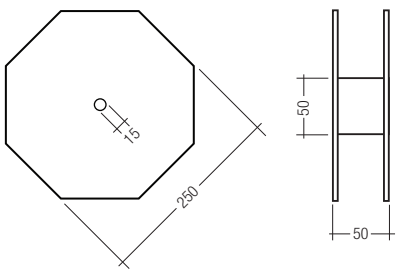
Label product packaging

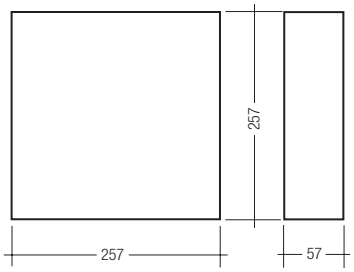


Label carton



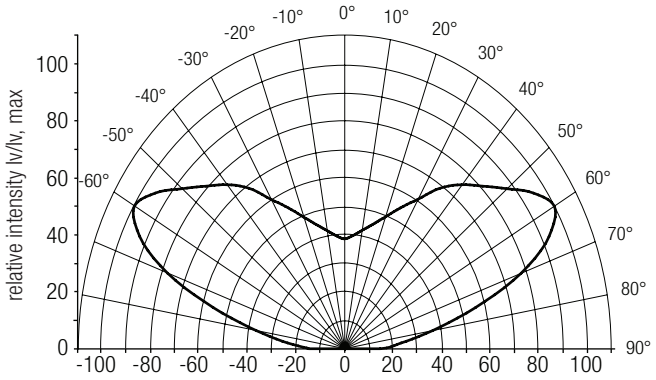
Dimensions roll packaging (packing code 2)





Optical characteristics TALEX(chain CRYSTAL SELECT

Light distribution Iv/Ivmax.



Coordinates and tolerances according to CIE 1964

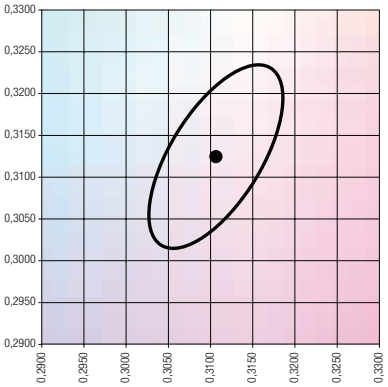
CIE coordinates

7,500 K

	x0	y0
Centre	0.3106	0.3124

MacAdam ellipse: 5SDCM

Crystal white



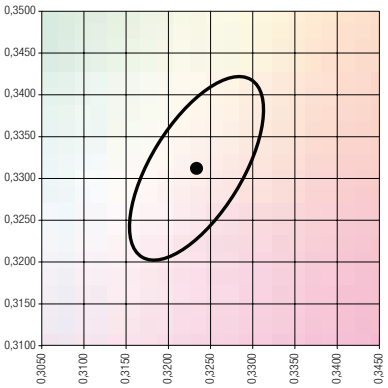
CIE coordinates:

6,500 K

	x0	y0
Centre	0.3230	0.3310

MacAdam ellipse: 5SDCM

Daylight white



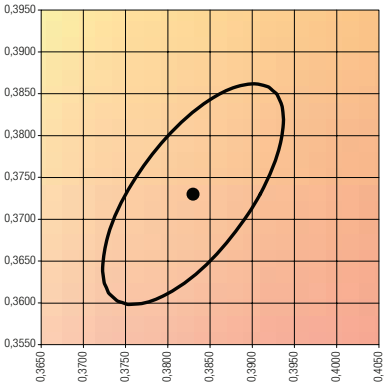
CIE coordinates:

4,200 K

	x0	y0
Centre	0.3833	0.3733

MacAdam ellipse: 5SDCM

Neutral white



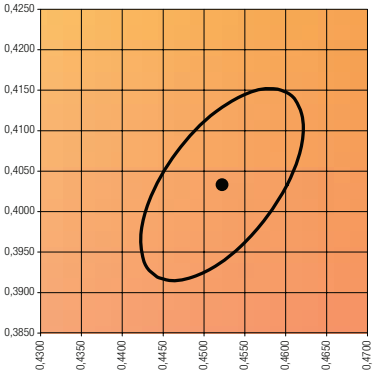
CIE coordinates:

3,000 K

	x0	y0
Centre	0.4520	0.4033

MacAdam ellipse: 5SDCM

Warm white



CIE coordinates:

570 nm

	x0	y0
Centre	0.4215	0.4632

MacAdam ellipse: 6SDCM

Yellow white