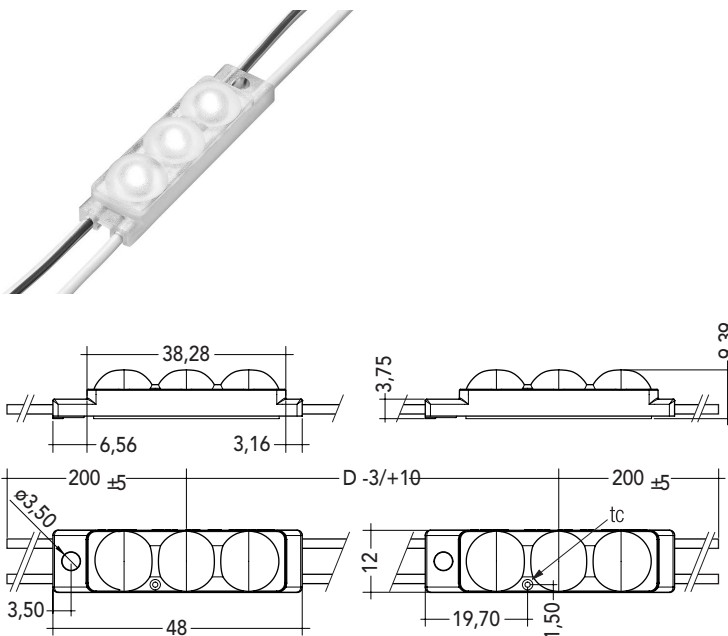


**TALEXchain CRYSTAL SELECT P551**

IP68 

**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)
- High colour consistency (MacAdam 5)
- Beam characteristic: 155°
- LED module with plastic casing and strain relief with IP68 protection
- Integrated current source to stabilise luminous flux
- Flexible chain, can be split between any module
- Mounting with screw or premounted double-sided adhesive tape possible
- Nominal life-time up to 50,000 h (at ta 60 °C with a failure rate max. 0.2 % per 1,000 h)



**Technical data**

Ambient temperature ta	-40 ... +60 °C
Max. surface temperature on module tc <sup>1</sup>	+65 °C
Storage temperature ts	-40 ... +85 °C
Type of protection <sup>4</sup>	IP68
Risk group (EN 62471:2008)	0

**Ordering data**

Type	Article number	Colour	Wavelength range	Colour temperature <sup>5</sup>
3 light points per module				
LED P551E-S CW 12 200 100 68 B G1	28000717 / 87500717	Crystal white	-	7,500 K
LED P551E-S DL 12 150 100 68 B G1	28000365 / 87500297	Daylight white	-	6,500 K
LED P551E-S DL 12 200 100 68 B G1	28000366 / 87500298	Daylight white	-	6,500 K
LED P551E-S NW 12 200 100 68 B G1	28000432	Neutral white	-	4,000 K
LED P551E-S WW 12 200 100 68 B G1	28000433	Warm white	-	3,000 K

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

**Specific technical data**

Type	Photometric code <sup>2</sup>	Wavelength range	Colour temperature <sup>5</sup>	Typ. luminous flux per module <sup>2</sup>	Colour rendering index CRI <sup>2</sup>	Supply voltage DC <sup>3</sup>	Typ. current per module <sup>2</sup>	Typ. power per module	Luminous efficacy	Energy classification per module
3 light points per module										
LED P551E-S CW	775/5xx	-	7,500 K	60 lm	> 63	12 V	58 mA	0.7 W	86 lm/W	A++
LED P551E-S DL	765/5xx	-	6,500 K	60 lm	> 70	12 V	58 mA	0.7 W	86 lm/W	A++
LED P551E-S NW	840/5xx	-	4,000 K	66 lm	> 80	12 V	58 mA	0.7 W	95 lm/W	A++
LED P551E-S WW	830/5xx	-	3,000 K	66 lm	> 80	12 V	58 mA	0.7 W	95 lm/W	A++

<sup>1</sup> 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.

<sup>2</sup> Tolerance range for optical and electrical data: ±15 %.

<sup>3</sup> Exceeding the max. operating voltage leads to an overload on the TALEXchain. This may in turn result in a reduction in life-time or even in destruction. Tolerance range for the supply voltage: 12 V: +2 V / -0 V.

<sup>4</sup> Maximum submerge depth 1 m / 60 min.

<sup>5</sup> Colour temperature for information only. Valid colour see 'Coordinates and tolerances according to CIE 1931'.

All values at ta = 25 °C.

Type code

Example: LED P551E-S DL 12 200 100 68 B G1

LED P551E-S	TALEXchain CRYSTAL SELECT
DL	Colour = Daylight white
12	Supply voltage = 12 V
200	Module distance D = 200 mm
100	Number of modules = 100
68	Type of protection = IP68
B	Beam characteristic = 155°
G1	Generation = 1

For more information please call or email your Tridonic contact.

Photometric code

Key for photometric code, e. g. 861

1 <sup>st</sup> digit	2 <sup>nd</sup> + 3 <sup>rd</sup> digit
Code CRI	Colour temperature in Kelvin x 100
7 67 – 76	
8 77 – 86	
9 87 – ≥90	

LED control gear matrix – TALEXchain CRYSTAL SELECT P551

IN-BUILT LCU					
Type	LCU 15W 12V IP67	LCU 35W 12V IP67	LCU 60W 12V IP67/ LC 60W 12V IP66	LCU 100W 12V IP67/ LC 100W 12V IP66	LCU 180W 12V IP67
Article number	28000507	28000508	28000509/ 28001026	28000510/ 28001027	28000511

Assignable LED control gear

Type	Number of modules										Max. chaining
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
LED P551E-S CW	2	18	5	43	8	74	13	124	23	223	100
LED P551E-S DL	2	18	5	43	8	74	13	124	23	223	100
LED P551E-S NW	2	18	5	43	8	74	13	124	23	223	100
LED P551E-S WW	2	18	5	43	8	74	13	124	23	223	100

**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 850°C according to EN 62031.

**Certificates**

- UL file: E313318
- CSA file: 249699
- ENEC for light colour DL, NW, WW only

**Thermal behaviour**

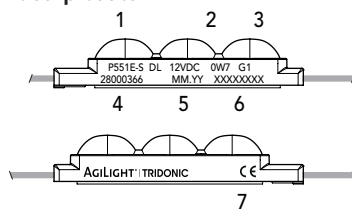
operation temperature (operation, no defects)	ta	- 40 → + 60 °C
storage temperature	ts	- 40 → + 85 °C
max. temperature tc point	tc	- 20 → + 80 °C

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.

**Maintenance note**

The product is maintenance free. If cleaning during application only clear water without the addition of cleaning agents should be used.

**Label product**



- 1 Type
- 2 Electr. specification
- 3 Generation
- 4 Article code
- 5 Production date
- 6 Production batch
- 7 Normative symbols

**Label product packaging**



- 1 Type
- 2 Packaging quantity
- 3 Article code
- 4 Production date
- 5 Barcode EAN13 for packaging unit
- 6 Barcode EAN128 (includes EAN13 and batch number)

**Label carton**



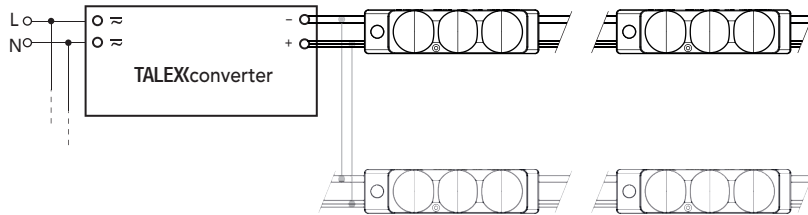
- 1 Type
- 2 Packaging quantity
- 3 Article code
- 4 Production date
- 5 Barcode EAN13 for packaging unit
- 6 Barcode EAN128 (includes EAN13 and batch number)

Wiring

Cable: AWG 18

Colour	red-white	white
Function	+	-

Wiring example

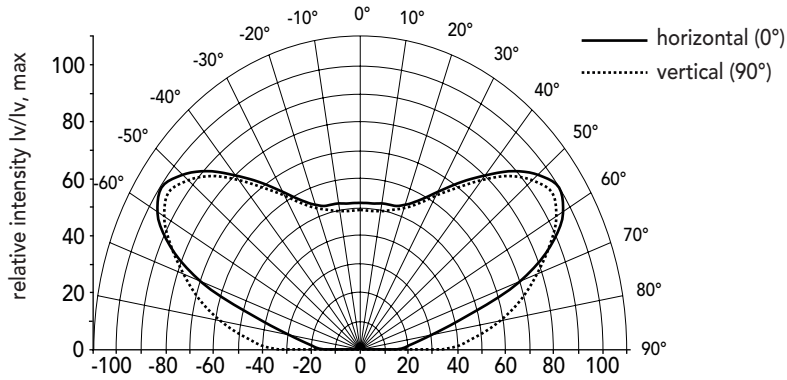


Empirical values for decrease of luminous flux over the chain

Type	Colour	Module distance	Module distance	Number of modules
		150 mm	200 mm	
LED P551E-S CW	Crystal white	16 %	41 %	100
LED P551E-S DL	Daylight white	16 %	41 %	100
LED P551E-S NW	Neutral white	16 %	41 %	100
LED P551E-S WW	Warm white	16 %	41 %	100

Beam characteristics 155°

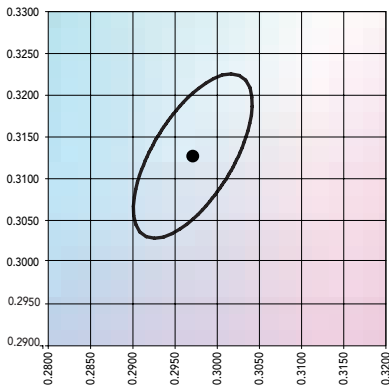
Light distribution  $I_v/I_{v,max}$ .



Coordinates and tolerances according to CIE 1931

Crystal white (CW)

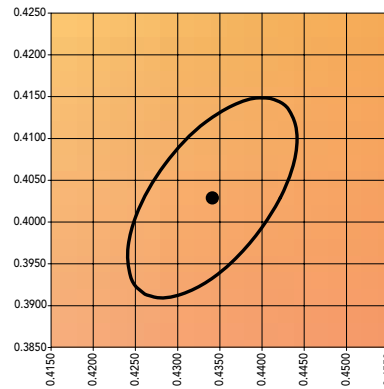
	x0	y0
Centre	0.2970	0.3132



MacAdam ellipse: 5SDCM

Warm white (WW)

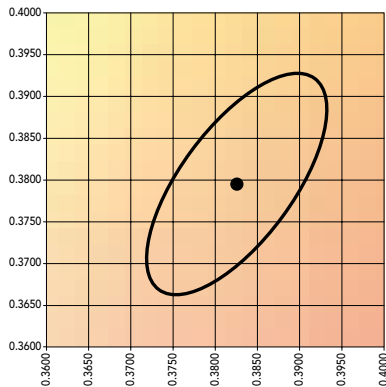
	x0	y0
Centre	0.4345	0.4033



MacAdam ellipse: 5SDCM

Neutral white (NW)

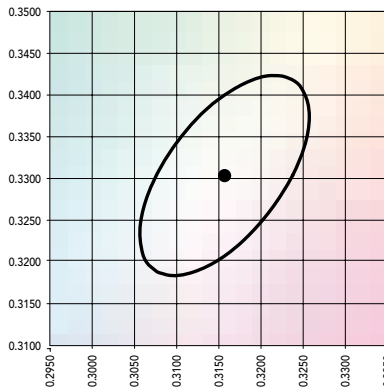
	x0	y0
Centre	0.3825	0.3796



MacAdam ellipse: 5SDCM

Daylight white (DL)

	x0	y0
Centre	0.3154	0.3305



MacAdam ellipse: 5SDCM

