



### TALEXchain P510-SC TALEXchain STANDARD

#### Product description

- LED chain for highlighting lines and edges and for backlighting complex contours, letters and symbols in signage applications
- Edge injection of transparent or diffuse materials
- High-power LED in chip-on-board technology (COB)
- Integrated current source to stabilise luminous flux
- Flexible chain, can be split between any module
- Beam characteristic: 140°
- Attached with M4 plastic screw or double-sided adhesive tape, premounted on Crystal white
- Connection: cable 200 mm, both sides
- For uniform backlighting: minimum distance to cover 60 mm

#### Technical data

|                            |                |
|----------------------------|----------------|
| Ambient temperature $t_a$  | -25 ... +55 °C |
| tc point <sup>①</sup>      | 75 °C          |
| Risk group (EN 62471:2008) | 0              |



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Colour temperatures and tolerances, page 3

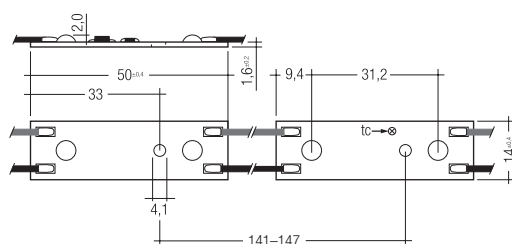
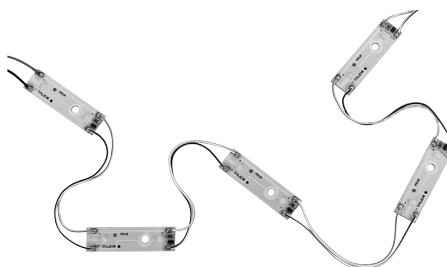


Fig. 1

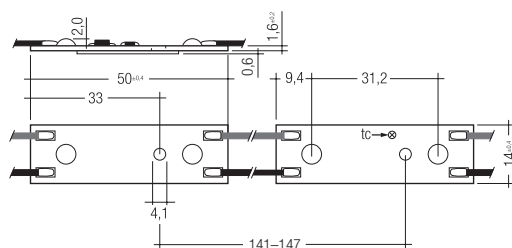


Fig. 2

#### Ordering data

| Fig.                             | Colour         | Wavelength range | Colour temperature | Type               | Article number |
|----------------------------------|----------------|------------------|--------------------|--------------------|----------------|
| <b>2 light points per module</b> |                |                  |                    |                    |                |
| 2                                | Crystal white  | –                | 7,500 K            | LED P510-SC CW 12V | 89600944       |
| 1                                | Daylight white | –                | 6,500 K            | LED P510-SC DL 12V | 89600724       |
| 1                                | Neutral white  | –                | 4,200 K            | LED P510-SC NW 12V | 89600723       |
| 1                                | Warm white     | –                | 3,000 K            | LED P510-SC WW 12V | 89600722       |
| 1                                | Yellow white   | 570 nm           | –                  | LED P510-SC YW 12V | 89600726       |
| 1                                | Red            | 619 – 629 nm     | –                  | LED P510-SC R 8V   | 89600725       |
| 1                                | Green          | 520 – 535 nm     | –                  | LED P510-SC G 12V  | 89600720       |
| 1                                | Blue           | 455 – 460 nm     | –                  | LED P510-SC B 12V  | 89601060       |

Packaging: 100 pieces/carton, 1,400 pieces/pallet

#### Specific technical data

| Type                             | Number of modules | Typ. luminous flux per module <sup>②</sup> | Supply voltage DC <sup>③</sup> | Current per module <sup>②</sup> | Power per module | Luminous efficacy | Total length |
|----------------------------------|-------------------|--|--------------------------------|---------------------------------|------------------|-------------------|--------------|
| <b>2 light points per module</b> |                   |  |                                |                                 |                  |                   |              |
| LED P510-SC CW 12V               | 30                | 12 lm                                      | 12 V                           | 27 mA                           | 0.32 W           | 38 lm/W           | 4,650 mm     |
| LED P510-SC DL 12V               | 30                | 12 lm                                      | 12 V                           | 35 mA                           | 0.42 W           | 29 lm/W           | 4,650 mm     |
| LED P510-SC NW 12V               | 30                | 11 lm                                      | 12 V                           | 35 mA                           | 0.42 W           | 26 lm/W           | 4,650 mm     |
| LED P510-SC WW 12V               | 30                | 10 lm                                      | 12 V                           | 35 mA                           | 0.42 W           | 24 lm/W           | 4,650 mm     |
| LED P510-SC YW 12V               | 30                | 14 lm                                      | 12 V                           | 35 mA                           | 0.42 W           | 33 lm/W           | 4,650 mm     |
| LED P510-SC R 8V                 | 30                | 11 lm                                      | 8 V                            | 52 mA                           | 0.42 W           | 26 lm/W           | 4,650 mm     |
| LED P510-SC G 12V                | 30                | 7 lm                                       | 12 V                           | 35 mA                           | 0.42 W           | 17 lm/W           | 4,650 mm     |
| LED P510-SC B 12V                | 30                | 2 lm                                       | 12 V                           | 27 mA                           | 0.32 W           | 6 lm/W            | 4,650 mm     |

<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 lifetime or even in destruction.  
Tolerance range for the supply voltage: 8 V: +2 V / -0 V; 12 V: +2 V / -0 V.

All values for  $t_a = 25$  °C.

**Converter matrix – TALEXchain P510-SC**

|                    |                | IN-BUILT LCU          |                       | IN-BUILT LCU          |                       |                       |                       |                       |                       | REMOTE LCU            |                       |                       |      |      |      |               |      |    |     |    |     |    |     |    |
|--------------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------|------|------|---------------|------|----|-----|----|-----|----|-----|----|
|                    |                | LCU<br>035/08<br>D010 | LCU<br>100/08<br>D010 | LCU<br>015/12<br>D010 | LCU<br>035/12<br>D010 | LCU<br>060/12<br>D010 | LCU<br>100/12<br>D010 | LCU<br>150/12<br>D010 | LCU<br>035/12<br>E020 | LCU<br>060/12<br>E020 | LCU<br>100/12<br>E020 | LCU<br>150/12<br>E020 |      |      |      |               |      |    |     |    |     |    |     |    |
|                    |                | 24166317              | 24166325              | 24166316              | 24166318              | 24166322              | 24166326              | 24166331              | 24166319              | 24166323              | 24166327              | 24166332              |      |      |      |               |      |    |     |    |     |    |     |    |
|                    |                | Assignable converter  |                       | Assignable converter  |                       |                       |                       |                       |                       | Assignable converter  |                       |                       |      |      |      |               |      |    |     |    |     |    |     |    |
| Type               | Article number | Number of modules     |                       |                       |                       | Number of modules     |                       |                       |                       |                       |                       | Number of modules     |      |      |      | Max. chaining |      |    |     |    |     |    |     |    |
|                    |                | Min.                  | Max.                  | Min.                  | Max.                  | Min.                  | Max.                  | Min.                  | Max.                  | Min.                  | Max.                  | Min.                  | Max. | Min. | Max. | Min.          | Max. |    |     |    |     |    |     |    |
| LED P510-SC CW 12V | 89600944       |                       |                       |                       |                       | 5                     | 40                    | 15                    | 95                    | 21                    | 163                   | 41                    | 271  | 81   | 407  | 15            | 95   | 21 | 163 | 41 | 271 | 81 | 407 | 50 |
| LED P510-SC DL 12V | 89600724       |                       |                       |                       |                       | 4                     | 31                    | 11                    | 72                    | 16                    | 124                   | 31                    | 207  | 62   | 310  | 11            | 72   | 16 | 124 | 31 | 207 | 62 | 310 | 50 |
| LED P510-SC NW 12V | 89600723       |                       |                       |                       |                       | 4                     | 31                    | 11                    | 72                    | 16                    | 124                   | 31                    | 207  | 62   | 310  | 11            | 72   | 16 | 124 | 31 | 207 | 62 | 310 | 50 |
| LED P510-SC WW 12V | 89600722       |                       |                       |                       |                       | 4                     | 31                    | 11                    | 72                    | 16                    | 124                   | 31                    | 207  | 62   | 310  | 11            | 72   | 16 | 124 | 31 | 207 | 62 | 310 | 50 |
| LED P510-SC YW 12V | 89600726       |                       |                       |                       |                       | 4                     | 31                    | 11                    | 72                    | 16                    | 124                   | 31                    | 207  | 62   | 310  | 11            | 72   | 16 | 124 | 31 | 207 | 62 | 310 | 50 |
| LED P510-SC R 8V   | 89600725       | 11                    | 72                    | 31                    | 207                   |                       |                       |                       |                       |                       |                       |                       |      |      |      |               |      |    |     |    |     |    |     | 35 |
| LED P510-SC G 12V  | 89600720       |                       |                       |                       |                       | 4                     | 31                    | 11                    | 72                    | 16                    | 124                   | 31                    | 207  | 62   | 310  | 11            | 72   | 16 | 124 | 31 | 207 | 62 | 310 | 50 |
| LED P510-SC B 12V  | 89601060       |                       |                       |                       |                       | 5                     | 40                    | 15                    | 95                    | 21                    | 163                   | 41                    | 271  | 81   | 407  | 15            | 95   | 21 | 163 | 41 | 271 | 81 | 407 | 50 |

**Standards**

- EN 62031
- EN 62471

The product meets the “inbuilt LED module” classification according to EN 62031.

**Certificates**

- UL file: e313318

| tc temperature in °C | Luminous flux in % | Life time in h |
|----------------------|--------------------|----------------|
| 45                   | 80                 | 22,000         |
|                      | 70                 | 35,000         |
|                      | 50                 | 65,000         |
| 75                   | 80                 | 19,000         |
|                      | 70                 | 30,000         |
|                      | 50                 | 55,000         |

**TALEX chains in conjunction with water**

- Admissible Environmental Conditions:  
The LED modules are provided with a protective coating to guard against superficial dewing (according to JEDEC JESD22 A100C) and high relative air humidity. If the protective coating is damaged (for example during soldering) it must be rebuilt to sustain the same level of protection.
- Harmful Environmental Conditions:  
The product is not designed to be operated in contact with water.

**Koordinaten und Toleranzen nach CIE 1964:**

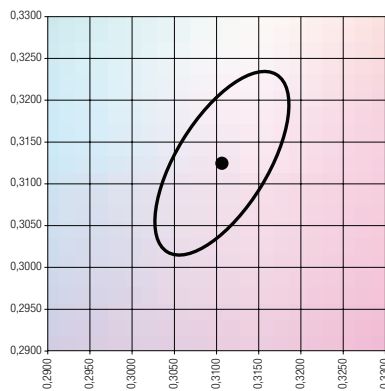
**CIE-Koordinaten**

**7,500 K**

|        | x0     | y0     |
|--------|--------|--------|
| Centre | 0.3106 | 0.3124 |

MacAdam ellipse: 5SDCM

**Crystal white**



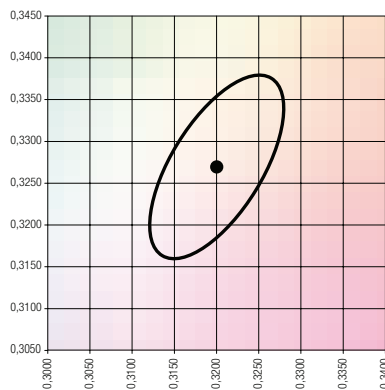
**CIE coordinates:**

**6,500 K**

|        | x0     | y0     |
|--------|--------|--------|
| Centre | 0.3200 | 0.3270 |

MacAdam ellipse: 5SDCM

**Daylight white**



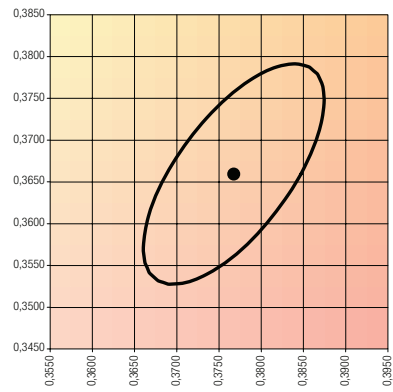
**CIE coordinates:**

**4,200 K**

|        | x0     | y0     |
|--------|--------|--------|
| Centre | 0.3770 | 0.3660 |

MacAdam ellipse: 5SDCM

**Neutral white**



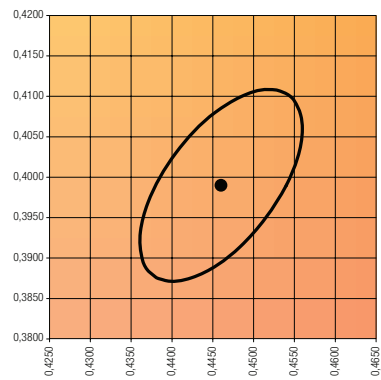
**CIE coordinates:**

**3,000 K**

|        | x0     | y0     |
|--------|--------|--------|
| Centre | 0.4460 | 0.3990 |

MacAdam ellipse: 5SDCM

**Warm white**



**CIE coordinates:**

**570 nm**

|        | x0     | y0     |
|--------|--------|--------|
| Centre | 0.4171 | 0.4602 |

MacAdam ellipse: 5SDCM

**Yellow white**

