LED Tube

The ***hansen*** **LED Tube** is a highly flexible light source designed for backlighting acrylic, banner or similar translucent materials. Its primary application is the illumination of channel letters and light boxes in illuminated advertising systems.

The **LED Tube** consists of a chain of series-connected LEDs. Each LED is provided with an anti-parallel protective diode mounted on the same printed circuit board. For better protection, the circuit boards and the connecting cables are enclosed in a continuous transparent heat shrink tubing.

LED spacing, overall length, brightness and light colour of the LED Tube can be specified by the customer.

Classification of LED-type, light colour and current:

	Standard	Power	2x100
25 mA	0.08 W		
50 mA	0.11 W		
100 mA		0.28 W 0.2 W	0.56 W

Photometric data of the LEDs:

Light colour	Standard	Power*)
White 2,700 K	8,7 lm	42 lm
White 3,000 K	8,7 lm	42 lm
White 4,000 K	9,6 lm	44 lm
White 5,000 K	9,6 lm	44 lm
White 6,500 K	9,6 lm	44 lm
White 7,600 K	9,6 lm	44 lm
Blue (463 - 471 nm)	2,4 lm	6,3 lm
Green (516 - 534 nm)	9,2 lm	21,5 lm
Red (612 - 624 nm)	9,5 lm (at 50 mA)	14 lm
Yellow (583 - 592 nm)	6,3 lm (at50 mA)	xxx
Amber (600 - 609 nm)	9,5 lm (at 50 mA)	xxx
LED radiation angel	120°	xxx
Colour rendering, white	CRI 80 (CRI 70 bei 7600K)	

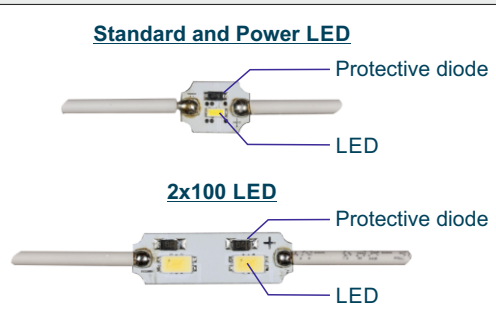
Note: Tolerance of the photometric data: +/- 10%

*) Values of the Power-2x100 LED = values of Power LED x 2
Values of 50 mA operating current: Values of power : 1,9

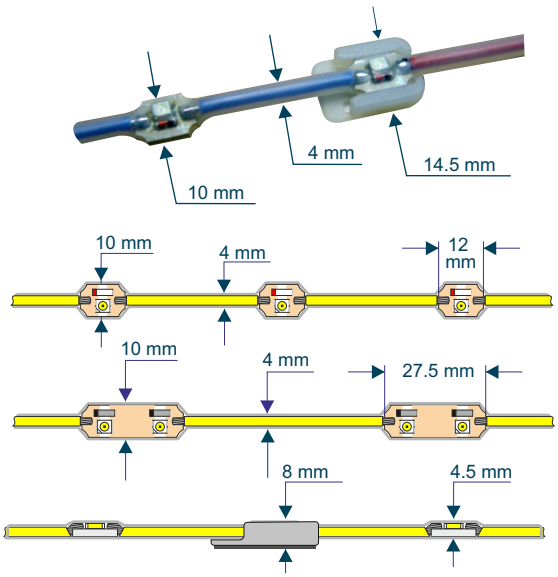
Heat shrink tubing:

Base material	Cross-linked polyolefin
Colour/surface	Transparent/smooth, matt
Operating temperature	-55 °C to +135 °C
Dielectric strength	24 kV/mm (VDE 0303 Part 2)
Flammability	FMVSS 302 passed
Halogen-free	According to DIN VDE 0472-815
Approvals	Vg95343, Ul224, CSA

LED circuit boards with components:



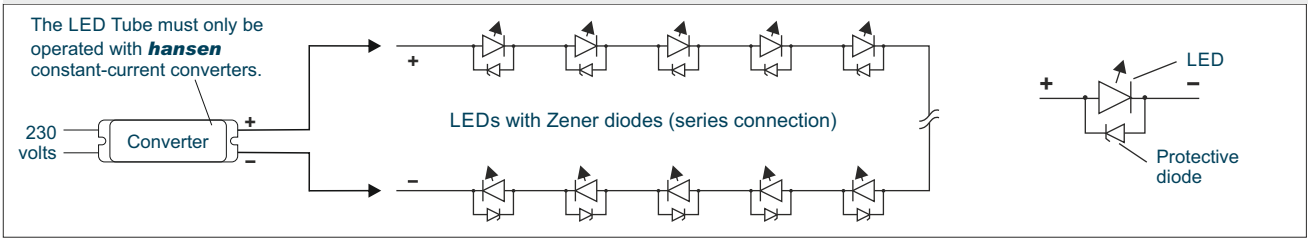
Dimensions:



General data:

Type of connection	Series connection
Power supply unit	***hansen*** converter type C... / ...
Degree of protection	IP3X
Class of protection	II
Ambient temperature range	-25 °C to +65 °C
Residual luminous flux	70% after 50,000 operating hours
UV resistance	Must be protected against direct UV radiation
Conformity	CE, RoHS
Test certificate	TÜV type test

Wiring diagram:



All values refer to an ambient temperature of +25°C.

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