Shaped LED Board (sandwich)

The **hansen Shaped LED Board** is a compact light source equipped with Power LEDs or High-Power LEDs.

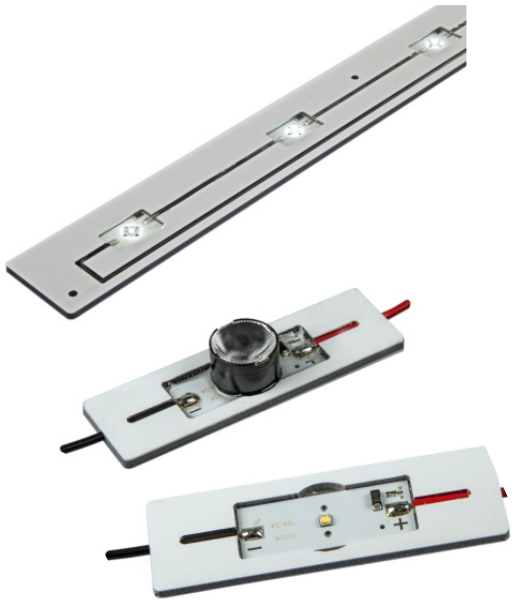
It can be used for the illumination of channel letters or banners as well as for the illumination of objects.

The base consist of two aluminium sheets glued together with a polyethylene core. One purpose of the aluminium sheets is to allow better cooling of the LEDs.

Grooves and recesses are milled into the board to accommodate the LEDs and connecting wires. These are embedded in transparent artificial resin after installation.

The recesses for the LEDs are made according to customer drawings or after approval by the customer. The outer shape as well as necessary cut-outs or fixtures are also made to customer specification.

The LEDs are operated in series connection by a constant current power supply.



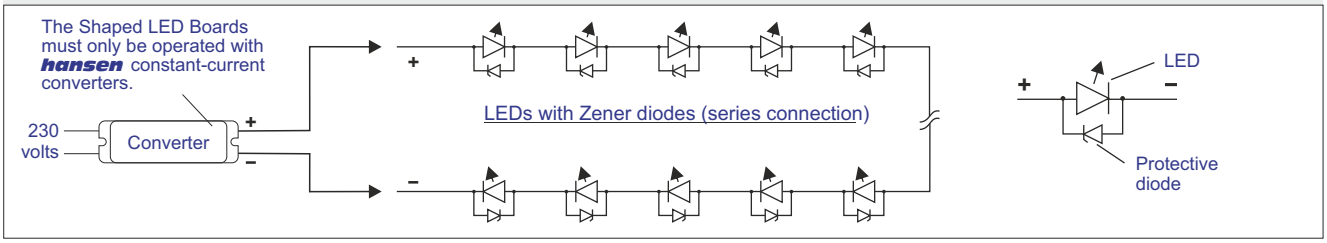
General data:	
Type of connection	Series connection
Power supply unit	hansen converter type C.../...
Max. LED current	500 mA
LED power (750 mA)	1.75 W
Available lenses	40° / 23° x 45°
Degree of protection	IP65
Class of protection	II
Ambient temperature range	-25 °C to +65 °C
Residual luminous flux	80% after 50,000 operating hours
Conformity	CE, RoHS
Material thickness	4 mm or 6 mm
Max. dimensions	1,000 x 2,800 mm (at 4 mm thickness)
Max. dimensions	1,300 x 2,800 mm (at 6 mm thickness)

Photometric data of the LEDs (750mA):			
Light colour	Luminous flux (w/o lens)	Luminous flux (w/ 40° lens)	Luminous flux (w/ 23°x45° lens)
White 3,000 K	102 lm	127 lm	123 lm
White 4,000 K	113 lm	139 lm	135 lm
White 5,000 K	106 lm	135 lm	131 lm
White 6,500 K	105 lm	133 lm	129 lm
Note: Tolerance of the photometric data: +/- 10%			

Aluminium composite board:	
Structure	Two aluminium sheets with a polyethylene core
Board thickness	4 mm or 6 mm
Weight	4 mm: 4.75 6 mm: 6.60 (kg/m^2)
Al sheet thickness	0.3 mm
Service temperature	-50 °C to +80 °C
Thermal expansion	0.024 mm/(m K)

Material properties – transparent potting compound:	
Two-component potting compound, polyurethane (PUR)-based	
Shore A hardness	70 +/-5
Shore D hardness	< 30
Service temperature	-40 °C to +90 °C
Dielectric strength	70 kV/mm (VDE 0303 Part 2)
UV resistance	Resistant
Thermal expansion	0.12 mm/m 1/K to 0.21 mm/m 1/K
Reaction to fire	Building material class B2, Class 3, TP(b)

Wiring diagram:



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

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