

The luminous panels can be used for backlighting translucent foils or plates such as digital prints or acrylic glass panes.

In the past, special light boxes equipped with fluorescent lamps or neon tubes had to be built for this purpose.

In comparison to these light boxes the luminous panels offer the following advantages:

Extremely flat: The overall depth of 11 mm allows very flat illuminated banners to be built. A double-sided design is also possible with an overall depth of 19 mm.

Low energy consumption: The LED-illuminated panels provide huge energy-savings. In view of rising energy prices, energy efficiency becomes more and more important. Some energy consumption figures can be found on the next page.

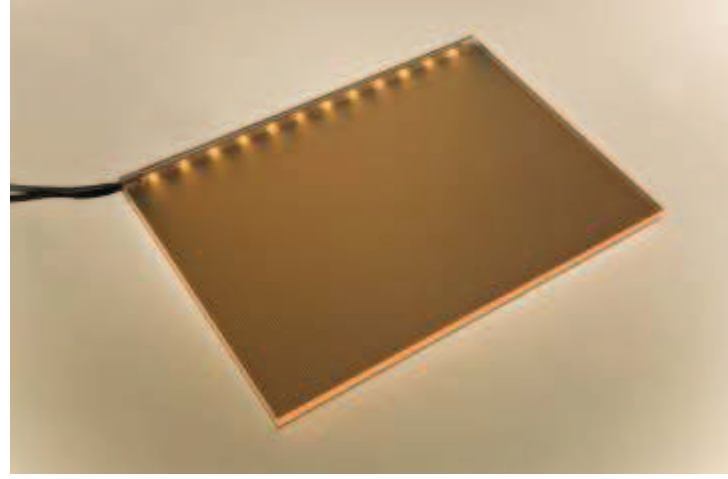
Aesthetic design: Thanks to their flat design, the luminous panels can be used to build very elegant and stylish framings or illuminated coffers in ceilings and walls.

Low weight: The weight of the luminous panels is approximately 13 kg/m². Since they do not require an additional box but only a frame, the panels are considerably lighter than conventional light boxes.

Bright LED light: LEDs are the latest trend. The cold-white LED light is particularly bright, modern, and has a positive effect on the illuminated motif.

Coloured light: Coloured or RGB LEDs can be used very simply. With RGB LEDs, attractive colour changes or colourful light effects can be implemented.

Low maintenance: The illuminant, i.e. the LEDs, do not have to be exchanged during the entire service life of the LEDs (30,000 to 50,000 hours).



The luminous panel is designed to be built into a frame or housing provided by the customer. The dimensions (length and width) can be specified by the customer.

The maximum possible size is 2,000 x 900 mm.

- - - Larger dimensions are available on request - - -

The luminous panel consists of two acrylic glass panes - an 8 mm transparent pane lit from the edge by LEDs, and a 3 mm white pane located behind the transparent pane to reflect the light towards the front.

The 8 mm pane consists of a special type of acrylic material which directs the incoming light from the edge towards the surface. The uniformity of this effect is enhanced by a laser-engraved pattern on the rear of the pane ensuring a uniform light distribution.

Depending on the size of the pane, the LED light is shone into the material from one or two sides. The LEDs are mounted on an oblong circuit board (LED strip) housed in a groove running along the edge of the pane.

If desired, the luminous panel can be prepared for outdoor use or installation on building facades. In this case, the LED strips in the groove are embedded in a special sealing compound. Please state in your enquiry or order if the panel is to be used outdoors.

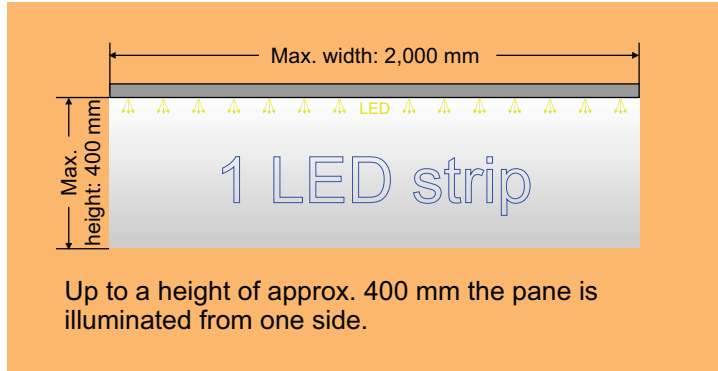
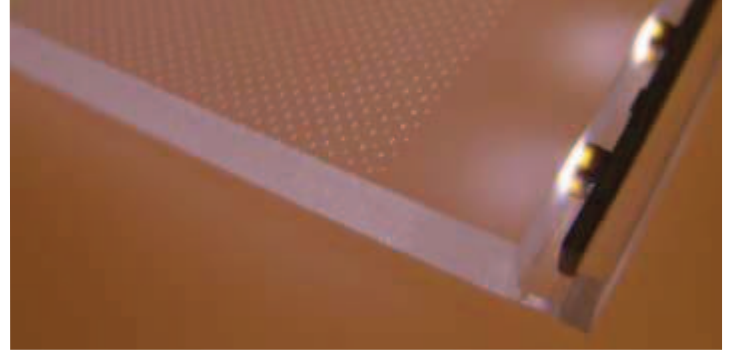
Installation example



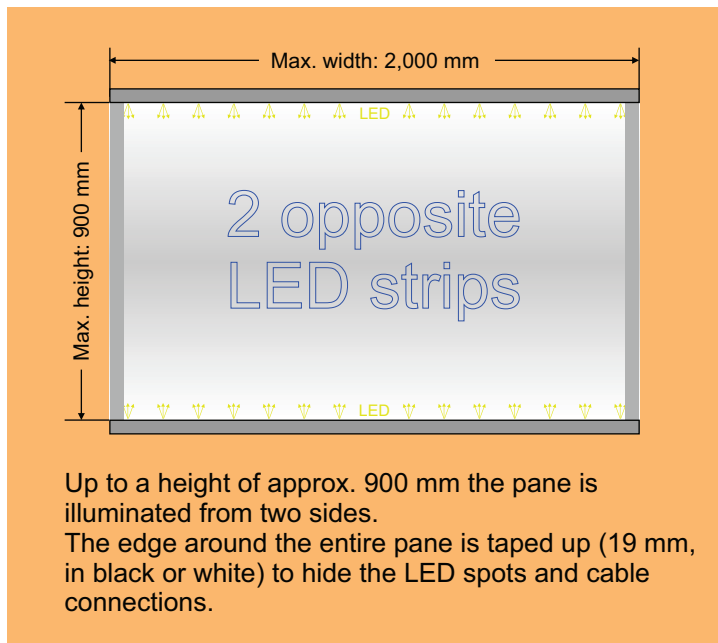
The brightness and uniformity of the illumination depends on the size of the surface area to be illuminated.

For example, an A3-sized surface requires more light than an A4-sized surface if the same brightness is to be achieved.

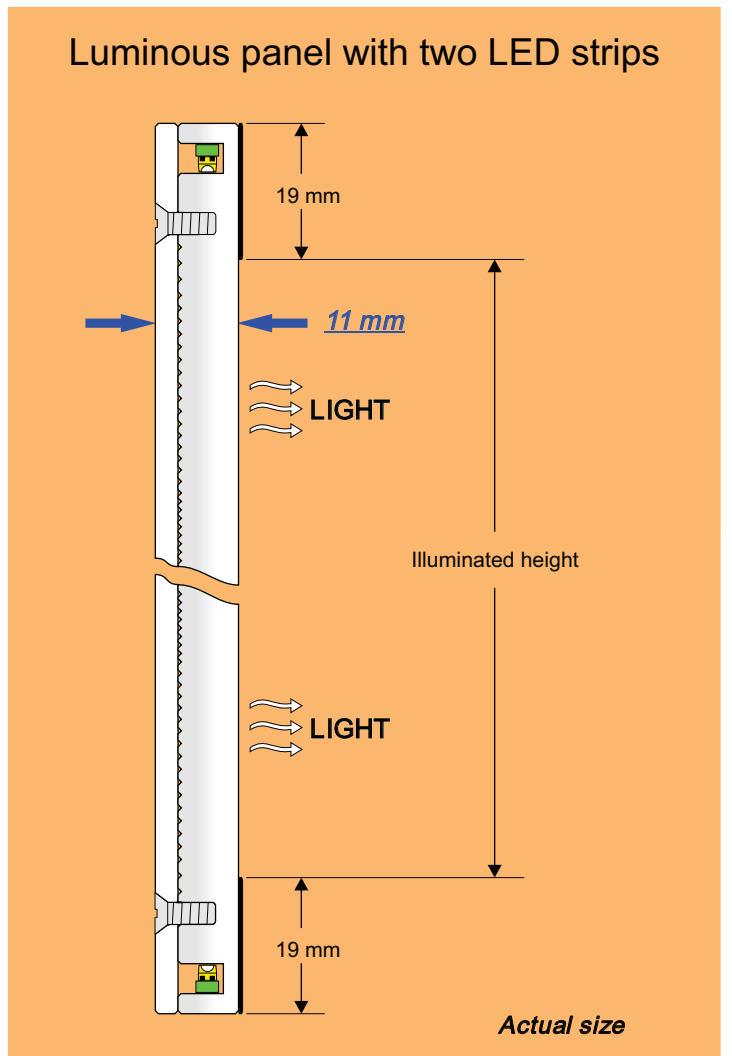
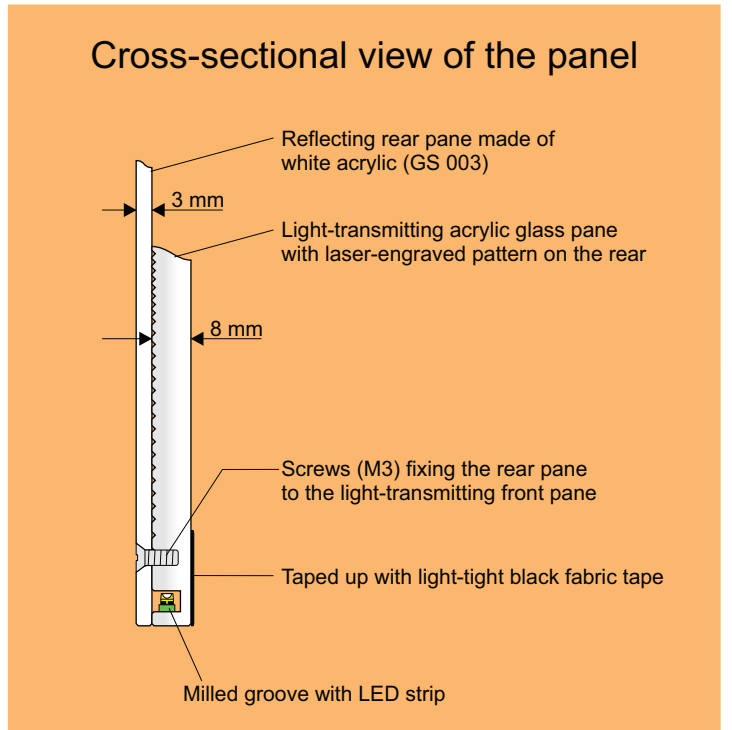
The size of the illuminated area determines whether the pane needs to be illuminated from one, two or four sides.



Up to a height of approx. 400 mm the pane is illuminated from one side.

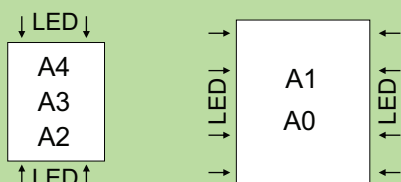


Up to a height of approx. 900 mm the pane is illuminated from two sides.
The edge around the entire pane is taped up (19 mm, in black or white) to hide the LED spots and cable connections.



Saving energy with the luminous panel - power consumption examples:

Format DIN ...	Illuminated area (cm)	Power (W)
A4	21 x 29.7	6.3
A3	29.7 x 42	8.9
A2	42 x 59.4	12.5
A1	59.4 x 84.1	24.9
A0	84.1 x 118.9	34.7



RGB Panel

The luminous panel cannot only be illuminated with white LEDs. Using RGB LEDs, changing luminous colours can be achieved.

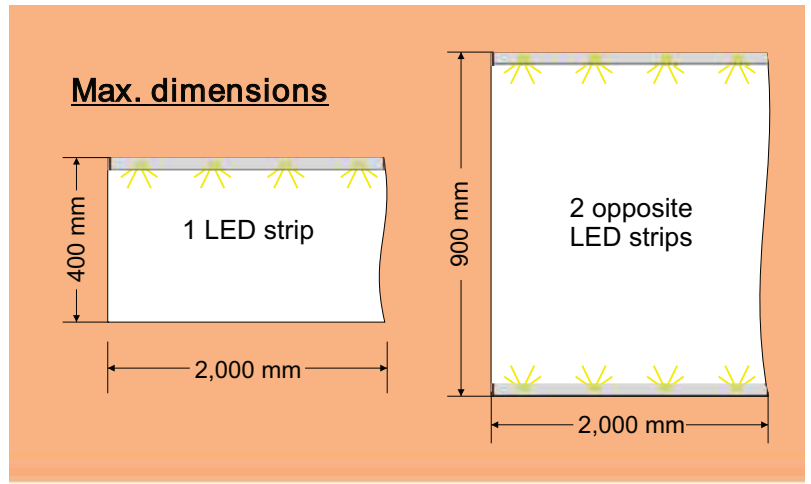
The colour of the light can be changed continuously through the entire colour triangle - fast or slowly, depending on the speed setting, creating an attractive eye-catcher.

Alternatively, the three primary colours red, green and blue as well as the mixed colours turquoise, yellow, violet or white can be set at the push of a button.

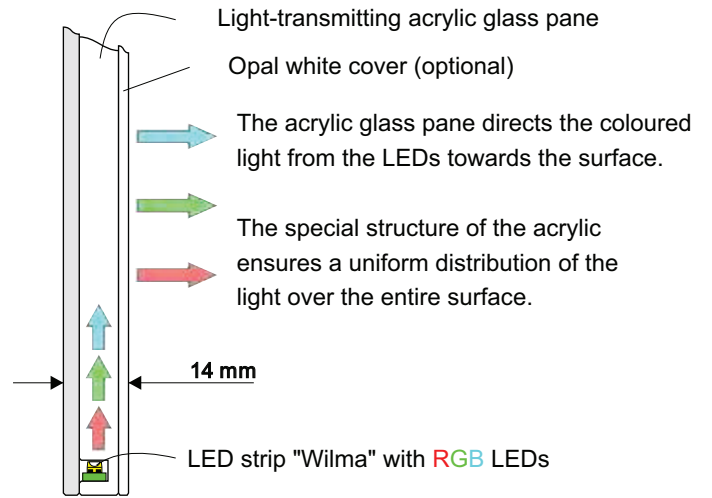
Depending on the size of the acrylic glass pane, the RGB luminous panel is equipped with one or two "Wilma" LED circuit boards featuring high-power LEDs at a spacing of 22 mm.

A particularly intense and uniform brightness and colour impression can be achieved by covering the panel with an opal acrylic glass pane.

In addition to the power supply unit, the RGB luminous panel requires a special control unit (see below). The maximum dimensions and the arrangement of the LEDs are identical to the "white" version.



Cross-sectional view of the RGB panel



Control unit for the RGB panel

Programme selection button

The RGB controller is used to control the "Wilma" circuit board in the panel.

Up to 300 LEDs can be connected to the controller. This is equivalent to a maximum circuit board length of 5.5 m.

The controller features different programmes for colour changes or continuous light which can be selected by means of a pushbutton.

Input voltage: 12 V DC
Input power: 120 W
Output voltage: 0-12 V
Output current: 3 x 3.3 A (max.)

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Dimensions:
85 x 85 x 45 mm

Plastic housing (IP 54)

