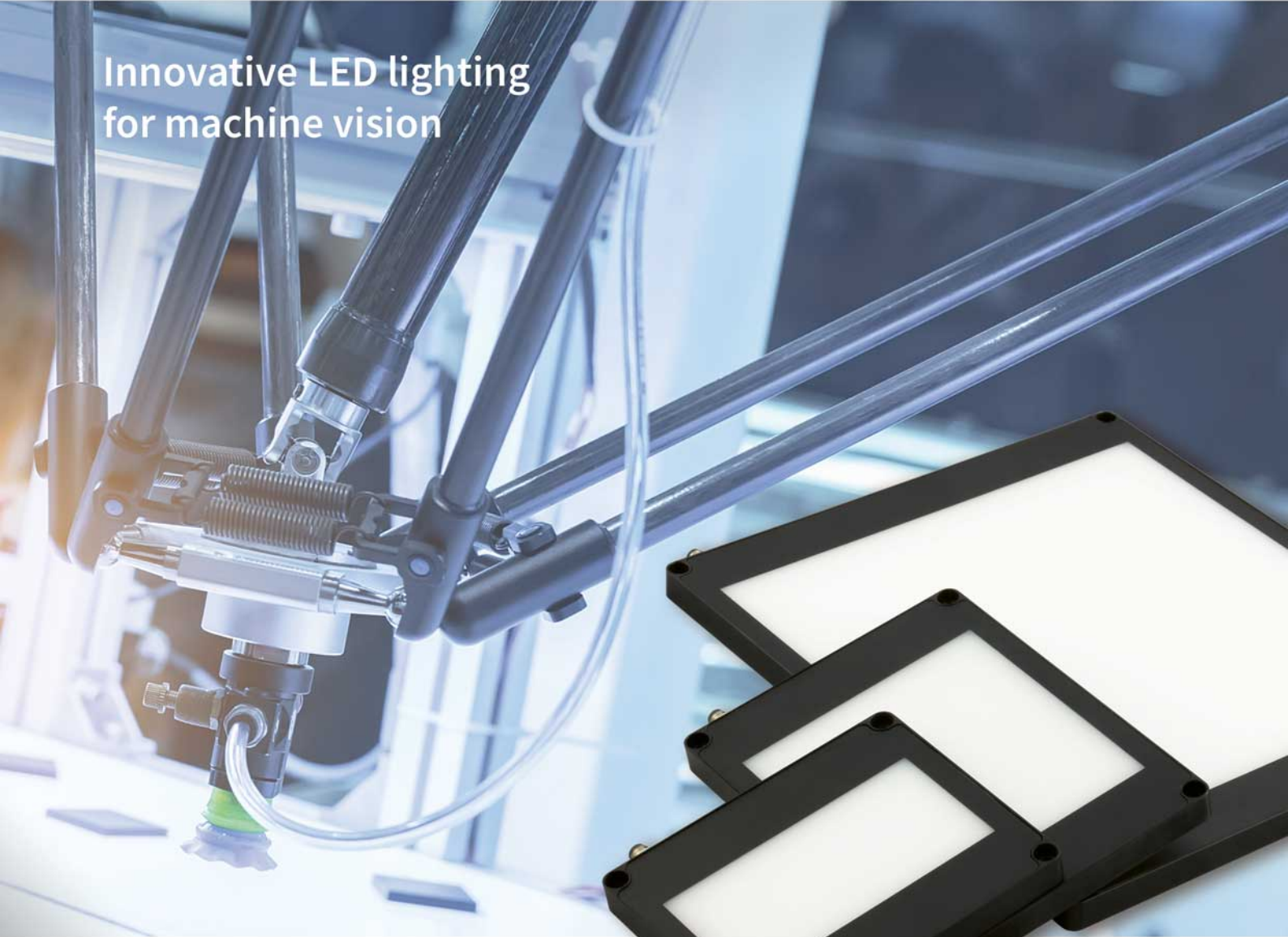


# Back Light Illumination

## DBL Series

Innovative LED lighting  
for machine vision



Diffuse back lightings  
in various LED colors and dimensions

- Homogenous light
- Slim housing
- High Quality
- Cost saving

Diffuse LED back lightings are designed to provide a flat homogeneous light for the inspection of object contours. A backlight can also be used to inspect transparent or semi-transparent objects. The integrated LED controller allows an easy adaptation to 4 different operation modes.

# Back Light Illumination - DBL Series

## A homogeneous back light in a very slim housing

When it comes to inspecting or measuring the object contour of a component, transmission light is the method of choice. In the DBL series, the LED light is indirectly coupled in from the side of the housing. The advantage is the resulting very low height of the housing with only 12mm. Even with the small form factor the light is very homogeneous over the full surface, without the known edge shading of a light with a direct light output.

All illuminations of the DBL series are designed for use in the automation industry: the LEDs are installed in a stable, black anodized aluminum housing, the radiation is emitted via a highly diffuse protective acrylic glass screen and the electrical connection is made via an M8 flange, which is widely used in sensor technology.

By means of an optional foil holder, additional glass panes or foils can be attached to the lighting. Among others, transparent panes for easy replacement in case of scratches or dirt or special foils for almost parallel light emission to create even sharper edge images.

MBJ offers white 5000K (CRI80), red, infrared, green, blue, and yellow LED colors in the standard program, with the white, red, and infrared LED being available from stock.



The DBL series is mounted using the countersunk holes with M5 thread at the four corners. There are two possibilities: either with M5 screws to fix or M4 screws to put through and screw 'externally'.

For other dimensions please have a look at our website or design your own back light with our new flex series.

Specification			
Material	Anodized aluminum housing	Certifications	CE, RoHS
Connector	M8 socket, male, 4 pin	Degree of Protection	IP54
Supply voltage	24 V DC +/- 5%	Humidity	30% to 70%
Op. Temperature	10° Celsius to 30° Celsius	Accessories	Mountings, Filterholder, Filters

Standard Model	Light field	Dimension	LED color <sup>1</sup>	Steady power	Price from <sup>2</sup>
DBL-0510	50x100 mm	100x120x12 mm	WT, RD, IR, GN, BE, YE	6.0 W	185 €
DBL-1010	100x100 mm	120x150x12 mm	WT, RD, IR, GN, BE, YE	11.0 W	240 €
DBL-1020	100x200 mm	120x250x12 mm	WT, RD, IR, GN, BE, YE	16.0 W	350 €
DBL-2020	200x200 mm	220x250x12 mm	WT, RD, IR, GN, BE, YE	22.0 W	470 €
DBL-2030	200x300 mm	220x350x12 mm	WT, RD, IR, GN, BE, YE	28.0 W	630 €

1) WT=white, RD= red, IR= infrared, GN=green, BE=blue, YE=yellow. Other LED colors on request

2) Price for a white LED, plus VAT and transportation costs

Operation Modes	Mode description
(-s) internal controller with 4 operation modes	24V steady light, dimmable steady light, triggered light and triggered flash light with up to 100% more intensity
(-x) no controller	External LED control is required