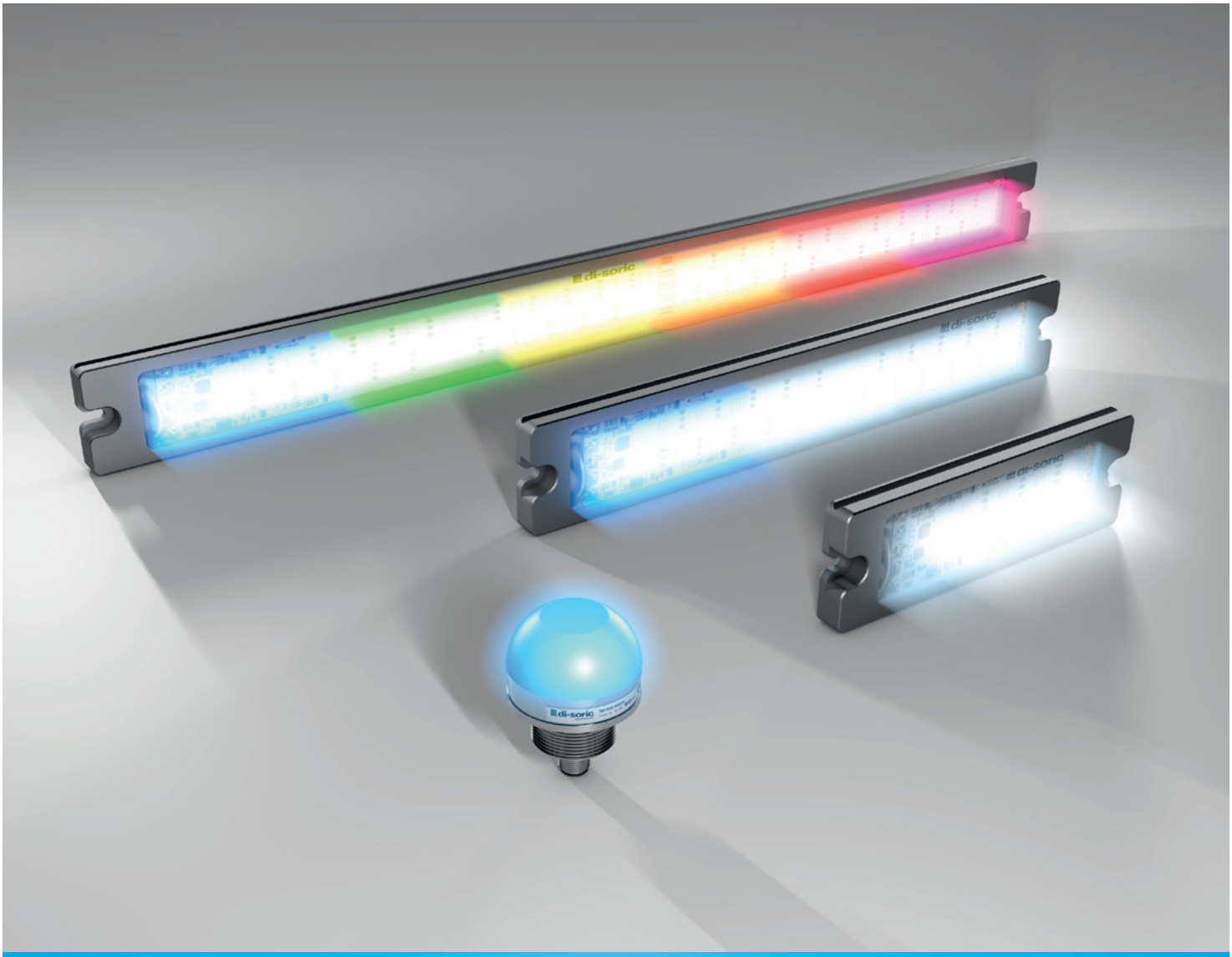


MACHINE LIGHTING AND SIGNAL LIGHTS

di-soric

MACHINE
LIGHTING

THE RIGHT LIGHT FOR EVERY APPLICATION

Our extremely luminous and reliable machine lighting is designed for industrial use. Highly efficient power LEDs and industrial encapsulation guarantee outstanding performance data.

The MB-RGBWs combine the high-quality, white light of our machine lighting (with the best color reproduction) with a high-performance RGB signal light element to display machine status.

MACHINE LIGHTING

SIGNAL LIGHTING
& SIGNAL LIGHTS

OPTIMAL DISPLAY OF SYSTEM STATES THROUGH IMPRESSIVE BRIGHTNESS AND GREATEST COLOR BRILLIANCE

With IO-Link, intelligent signal lighting is available that can be adapted to individual requirements and which display machine status optimally. The Segment and the Level modes offer many new options.

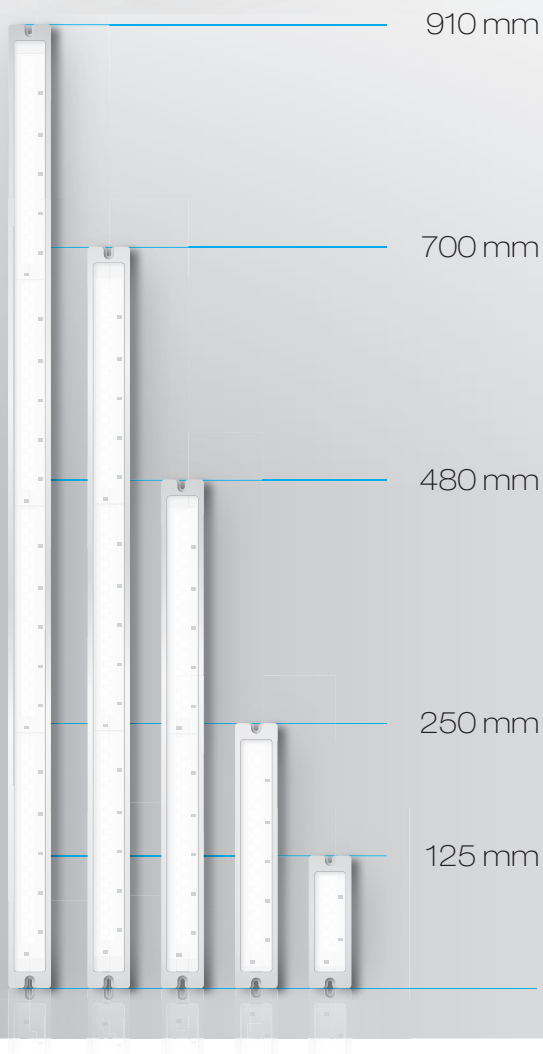
Signal lighting and signal lights can be configured during operation by means of IO-Link (process data) – light functions such as color, individual brightnesses and the flashing of individual segments can be freely adjusted. Even without IO-Link, it can be used immediately out of the box thanks to eight color presets that can be triggered (predefined or user-defined).

SIGNAL LIGHTING AND SIGNAL LIGHTS

MACHINE LIGHTING
MB-N

MAXIMUM EFFICIENCY IN MACHINES

The MB-N machine lights have a compact design and feature load-free triggers. They offer the highest quality light in white. Through a robust, vibration-free housing and slim designs, the machine lights are ideal for a large number of industrial applications.



Efficient, extreme light intensity, quick and easy installation

- Comprehensive range of lengths
- Compact construction with only 10 mm height and 40 mm width
- Mounted using a magnetic holder set rather than time-consuming drilling and screwing
- Swivel-mounted retaining bracket for non-glaring installation

Reliable operation through tested quality

- Extremely durable thanks to intelligent thermal management
- Outstanding energy efficiency
- Maximum robustness thanks to shock-resistant and vibration-resistant housing with protection class IP67

Maximum safety thanks to extremely good color reproduction

- Color rendering index R_a 85
- High-performance LEDs with a very high light intensity ensure reliable and even illumination
- Energy-saving system light yield of >100 lumens per watt
- Very homogeneous wide-angle illumination of 120°
- Suitable for workstation lighting

MB-N
APPLICATION EXAMPLE

WITH INTENSE LIGHT AND QUICKLY INTEGRATED

The MB-N LED machine lighting allows for ongoing processes in machines to be observed with accuracy as well as rapid retooling and maintenance – guaranteeing maximum efficiency in the machines.

Illumination of a robot cell

The MB-N ensures a wide-area and homogeneous illumination of a machine.
With the plug & play PWM dimmer MB-DIM-2, the illumination intensity can be adapted as needed.

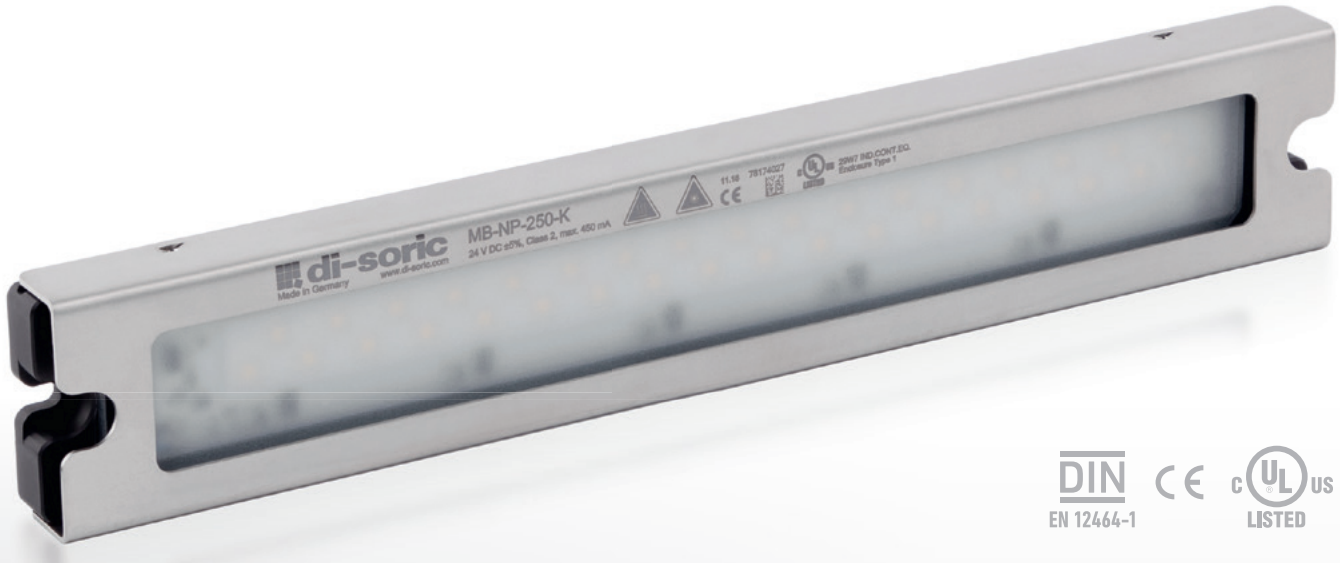
Machine lighting
MB-N-701-K-B3

MB-N	MB-N-126	MB-N-251	MB-N-481	MB-N-701	MB-N-911
Dimensions (HxWxD)	40 x 125 x 10 mm	40 x 250 x 10 mm	40 x 480 x 10 mm	40 x 700 x 10 mm	40 x 910 x 10 mm
Illuminated area	30 x 95 mm	30 x 220 mm	30 x 440 mm	30 x 660 mm	30 x 870 mm
Cable: 0.3 m / with M12 connector, 3-pin	MB-N-126-K-B3	MB-N-251-K-B3	MB-N-481-K-B3	MB-N-701-K-B3	MB-N-911-K-B3
Cable 3.0 m / with open end, 3 leads	MB-N-126-K	MB-N-251-K	MB-N-481-K	MB-N-701-K	MB-N-911-K

MACHINE LIGHTING
MB-NP PROTECTED

MAXIMUM EFFICIENCY UNDER HARSH AMBIENT CONDITIONS

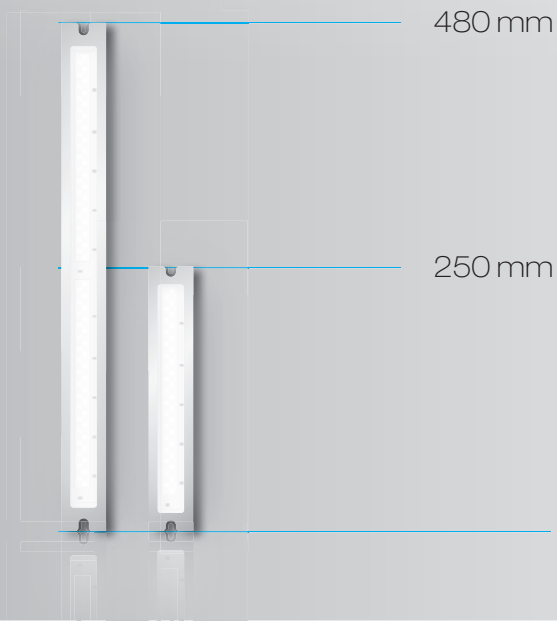
Thanks to their robust housing technologies and high degree of protection, Protected MB-NP machine lighting can be operated under mechanical loads and while being inundated with hot shavings. It is also chemically resistant to a large number of media.



DIN EN 12464-1 CE cULus LISTED

Excellent reliability, even under the toughest application conditions

- Resistant to being hit by hot shavings, i.e. from milling machines
- Resistant to materials such as bases, saline solutions, oils and greases
- Maximum robustness thanks to shock-resistant and vibration-resistant housing
- Leak test in accordance with DIN EN 60529, IP67



Reliable operation through tested quality

- Large and homogeneous field of illumination for optimal machine lighting
- Outstanding energy efficiency
- Made-in-Germany quality

Maximum safety thanks to extremely good color reproduction

- Color rendering index R_a 85
- High-performance LEDs with a very high light intensity ensure reliable and even illumination
- Energy-saving system light yield of >100 lumens per watt
- Very homogeneous wide-angle illumination of 120°

MB-NP
APPLICATION EXAMPLE

The MB-MP is used when increased mechanical loads occur in an application or higher requirements with respect to chemical resistance, such as in washing environments, are called for.

Illumination of a processing center

Due to its resistance to inundation with hot shavings, the MB-NP represents an optimal solution for illumination in harsh working environments. Due to their slim design, MB-NP machine lights are optimal in narrow installation situations.

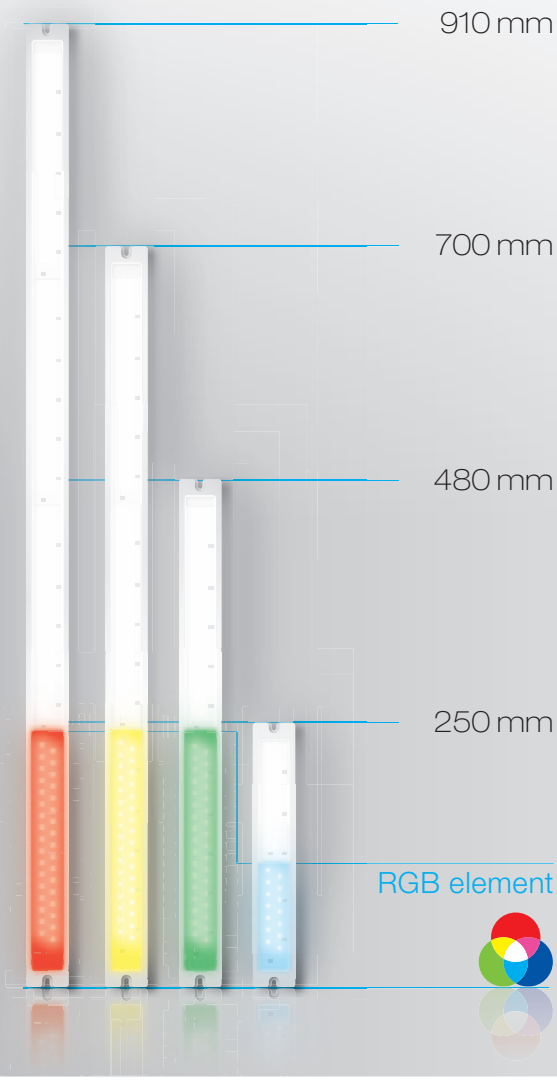
Machine lighting
MB-NP-480-K

MB-NP	MB-NP-250-K	MB-NP-480-K
Dimensions (H x W x D)	42.3 x 250 x 16.2 mm	42.3 x 480 x 16.2 mm
Illuminated area	25 x 216 mm	25 x 436 mm
Connection	Cable 3.0 m, open end, 3 leads	

MB-RGBW MACHINE LIGHTING
WITH STATUS DISPLAY

The new MB-RGBW housing combines the high-quality white light provided by our machine lighting with the option to show additional status displays using a freely configurable RGB light element.

DIN EN 12464-1 CE cULus LISTED



Highlights

- High light intensity thanks to state-of-the art Power LEDs
- Can be used immediately out-of-the-box through color presets
- The best light quality, as always
- Very good color reproduction guarantees safety
- Large illuminated RGB area for optimal display of machine status

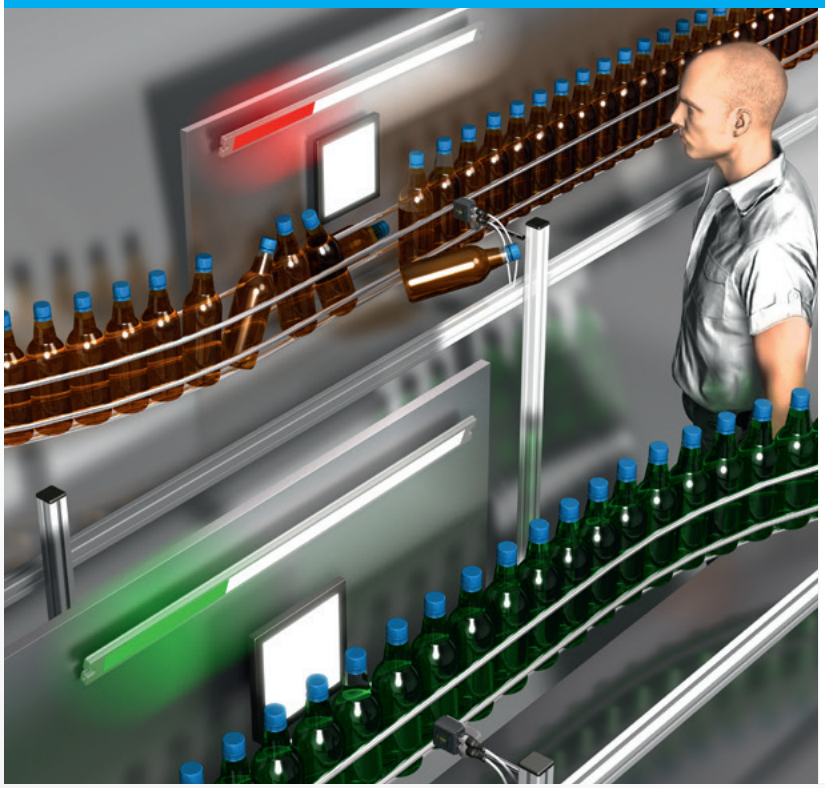
Features

- The RGB light element's individual light functions are easy to configure offline via IO-Link:
  - Virtually infinite number of possible colors
  - Individual brightness levels
  - Different flashing patterns can be assigned to individual colors
- Reduced costs
  - Just one device for every requirement
  - so less inventory is needed

MB-RGBW
APPLICATION EXAMPLE

The MB-RGBWs are used when, in addition to illumination, a status display is also needed in one application.

Illumination and optical display of system states



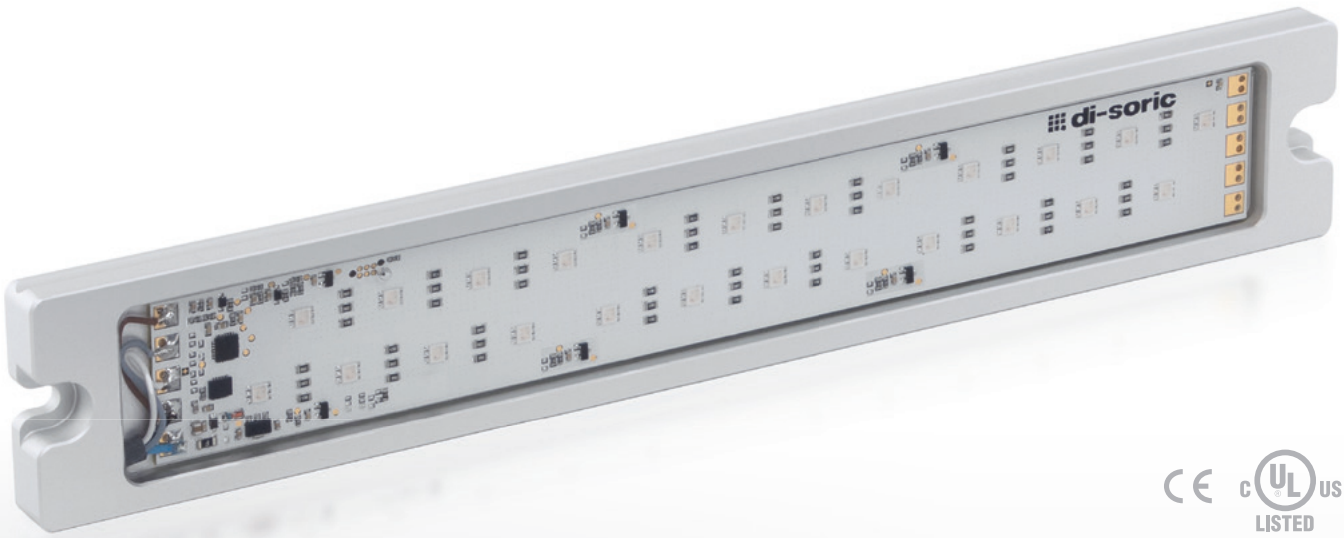
To minimize the damage during downtime of the system as much as possible, fast optical detection of the area of the fault is necessary. This is the prerequisite for quick elimination of the fault and a fast restart of the system.

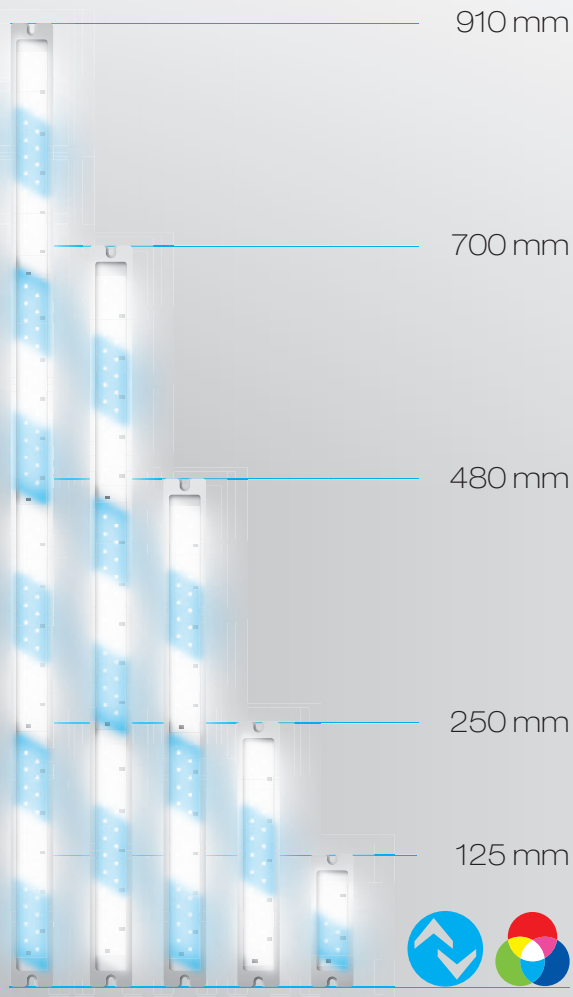
Machine lighting
with status indicator
MB-RGBW-481-K-B5

MB-RGBW	MB-RGBW-251-K-B5	MB-RGBW-481-K-B5	MB-RGBW-701-K-B5	MB-RGBW-911-K-B5
Dimensions (H x W x D)	40 x 250 x 10 mm	40 x 480 x 10 mm	40 x 700 x 10 mm	40 x 910 x 10 mm
Illuminated area	30 x 220 mm	30 x 440 mm	30 x 660 mm	30 x 870 mm
Connection	Cable: 0.3m with M12 connector, 5-pin			

MULTI-SEGMENT IOL SIGNAL LIGHTING
SB-RGB

With its pure color signal lighting, the SB-RGB clearly displays the status of machines or machine segments in vibrant, unmistakable colors, even at great distances.
Ready for use right away – and can be customized to suit every requirement.





Highlights

- Segment and Level mode (IO-Link process data)
- Freely configurable light functions via IO-Link
- Large illuminated area for optimal display of machine status
- Up to 8 color displays (predefined and user-defined via IO-Link) are possible through 3 digital trigger inputs
- Machine status visible over great distances

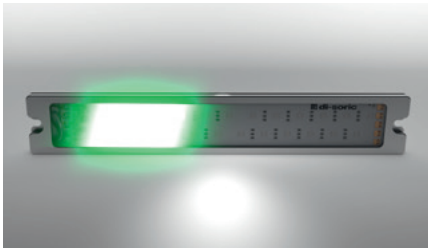
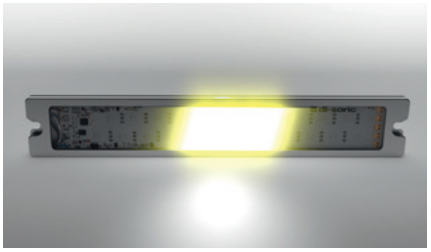
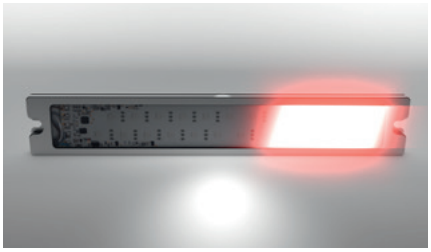
IO-Link features

- Easy configuration of individual functions during operation via IO-Link process data:
  - Segment and Level mode
  - Virtually infinite number of possible colors
  - Individual brightness levels
  - Different flashing patterns can be assigned to individual colors
- Reduced costs
  - Just one device for every requirement
  - so less inventory is needed

SB-RGB
FLEXIBILITY THROUGH 3 OPERATING MODES

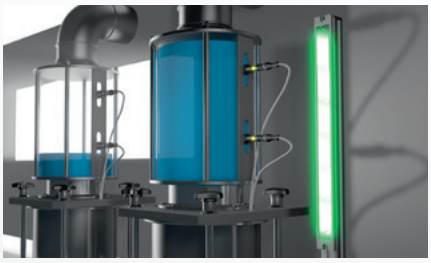
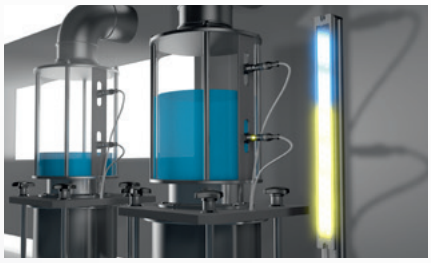
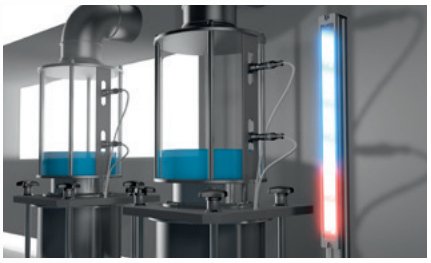
SEGMENT MODE

In Segment mode, individual segments can be activated via IO-Link, which enables countless color configurations. Colors can be adjusted for each segment on the fly via IO-Link, the intensity of 10-100% can be varied or blinking or flashing behavior can be adjusted (see application, p.13).

LEVEL MODE

In Level mode, there is the option to define a background color (inactive segment) via IO-Link process data, and customers can adjust these, for example, as a corporate identity color, and the fill level is displayed with the active segments (predefined color selection possible) (see Application, p. 13).

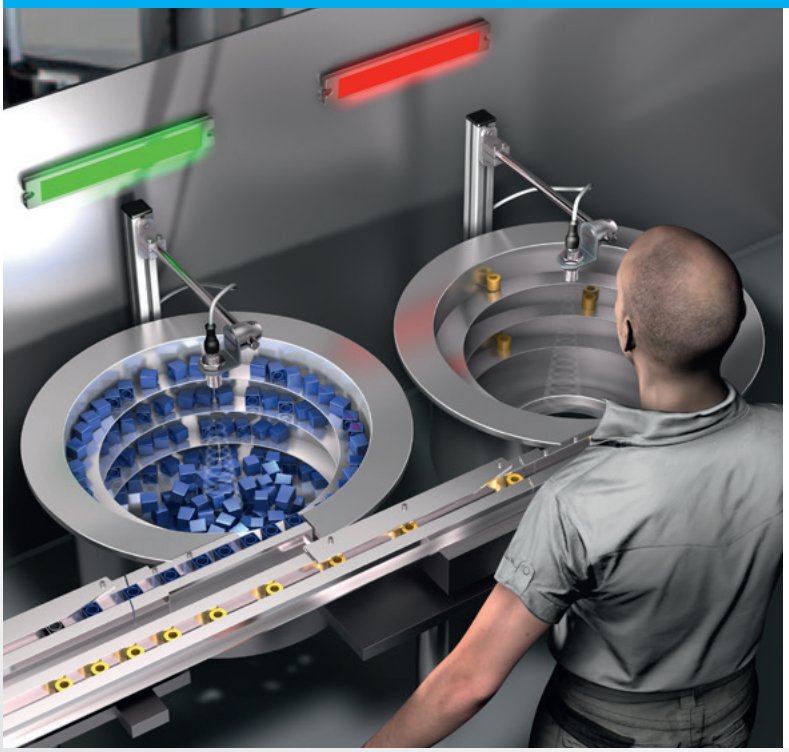
EXTERNAL TRIGGER MODE

In External trigger mode, 8 preset color and light configurations (factory settings or freely defined in advance) can be called up via 3 digital trigger inputs – even without IO-Link (see Application, p. 12).

SG-RGB	SB-RGB-126-K-B5	SB-RGB-251-K-B5	SB-RGB-481-K-B5	SB-RGB-701-K-B5	SB-RGB-911-K-B5
Dimensions (HxWxD)	40 x 125 x 10 mm	40 x 250 x 10 mm	40 x 480 x 10 mm	40 x 700 x 10 mm	40 x 910 x 10 mm
Segments	2	3	6	9	12
Illuminated area	30 x 95 mm	30 x 220 mm	30 x 440 mm	30 x 660 mm	30 x 870 mm
Connection	Cable 0.3 m / M12, 5-pin				

SB-RGB
APPLICATION EXAMPLES

Optical display of the fill level of components in a bunker



The SB-RGB displays the fill level of workpieces, which is monitored with an ultrasound sensor. This helps with optimally storing workpieces in a bunker and increasing efficiency. The workpieces are used within a supply system for filling vibratory conveyors (circular conveyors).

Signal lighting
SB-RGB-251-K-B5

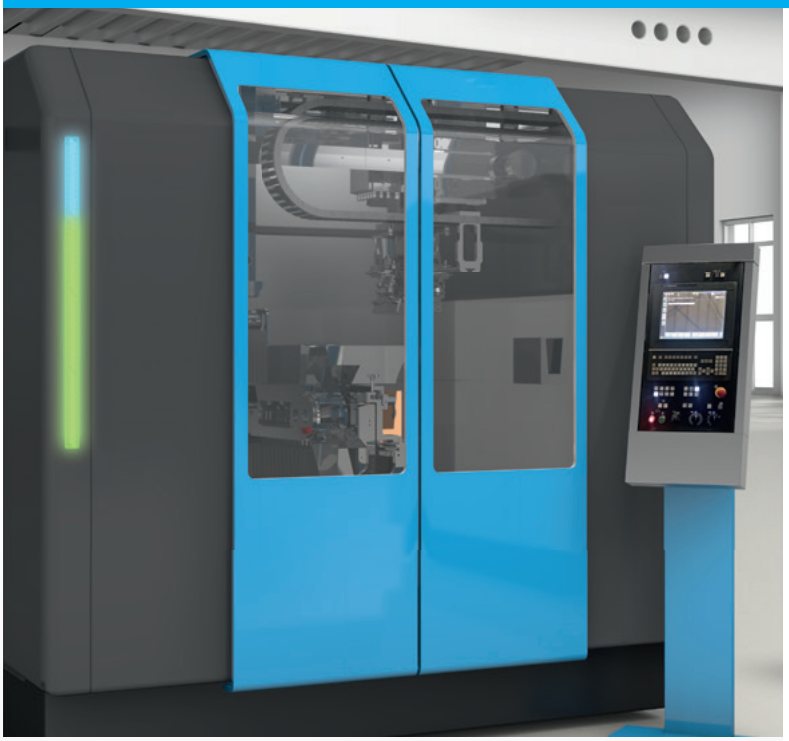
Optical hazard display in combination with a safety light curtain

When a workpiece is machined in a machining cell, the SB-RGB can be used as an optical hazard display. A cell that is illuminated red displays a hazard for the operator. When the cell lights up green, the operator can remove the workpiece from the cell. Mistakes can thereby be avoided and the availability of the system can be increased.

Signal lighting
SB-RGB-701-K-B5

SB-RGB
APPLICATION EXAMPLES

Optical visualization of progress in processes



In machining centers, signal lighting can be used for displaying progress in Segment mode. The machine operator can thus immediately determine the current status and act accordingly in case of error messages. A large amount of information can be clearly displayed optically.

Signal lighting
SB-RGB-901-K-B5

Optical visualization of fill levels in processes

In Level mode, the signal lighting can also display fill levels optically. There is an option to define a background color. Customers can set these, for example, as corporate identity. The fill level is displayed with the active segments (color selection possible). The segments light up depending on fill level according to a color selection predefined by the user.

Signal lighting
SB-RGB-701-K-B5

1-SEGMENT IOL SIGNAL LIGHTS
SBP-RGB

High-efficiency and multifunctionality:
The dome-shaped signal light from di-soric offers 360° visibility, a nearly endless number of colors, individual brightness and blinking/ flashing behaviors – all functions can be configured through IO-Link.

The compact design and high degree of protection (IP67) enable use in harsh ambient conditions.

IO-Link features

- Easy configuration of individual functions via IO-Link process data:
  - Nearly endless number of possible colors
  - Adjustable brightness
  - Operating modes: Constant, blinking and flashing
- Reduced costs
  - Just one device for every requirement
  - so less inventory is needed

Highlights

- Can be configured during operation via IO-Link process data
- Up to 8 predefined or user-defined color configurations can be displayed through 3 digital trigger inputs
- Optimal display of status
- Diffuse, very homogeneous light field
- IP67 as a robust (impact-resistant) design
- Easy installation and commissioning

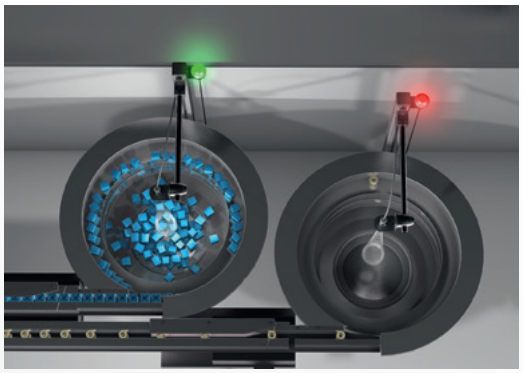
SBP-RGB
APPLICATION EXAMPLE

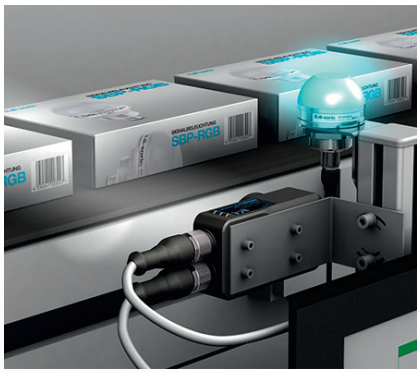
The SBP-RGBs are used when a status display is needed in an application.

Optical signal display for assistance systems for manual assembly workplace systems

During the assembly process, the signal light lights up yellow, during correct implementation of the assembly step it lights up green and the system initiates the next step to make new specifications. But if an error arises during assembly, this is displayed immediately with corresponding indications to correct it by means of the IO-Link signal light that is lighting up red (possibly blinking).

Signal lights
SBP-RGB-R50D-B5





SBP-RGB	SBP-RGB-R50D-B5
Dimensions (H x Ø)	66 x 50 mm
Illuminated area	Ø 50 x 20 mm
Connection	M12 connector, 5-pin

CLEVER THANKS TO IO-LINK
SAVE TIME AND MONEY

GET STRAIGHT TO THE POINT

The international IO-Link standard (in accordance with IEC 61131-9) is now regarded as an **“enabler for Industry 4.0”.**
Our SB-RGB Multi-Segment IOL signal lighting and SBP-RGB 1-Segment IOL signal lights can be configured directly via IO-Link process data according to customer requirements.

4 REASONS
TO CHOOSE OUR LIGHTS WITH IO-LINK.

1

CUSTOMIZED LIGHTING

- Above and beyond the preset colors, you can customize colors individually in IO-Link. The machines and products can be illuminated with freely selectable colors and brightness levels.

2

CAN BE USED OUT-OF-THE-BOX

- Ready-to-use through 3 digital trigger inputs

3

CONFIGURE WITH IO-LINK – WORKS AS A STAND-ALONE

- Individual color requirements are configured on-the-fly easily and intuitively via IO-Link process data.

4

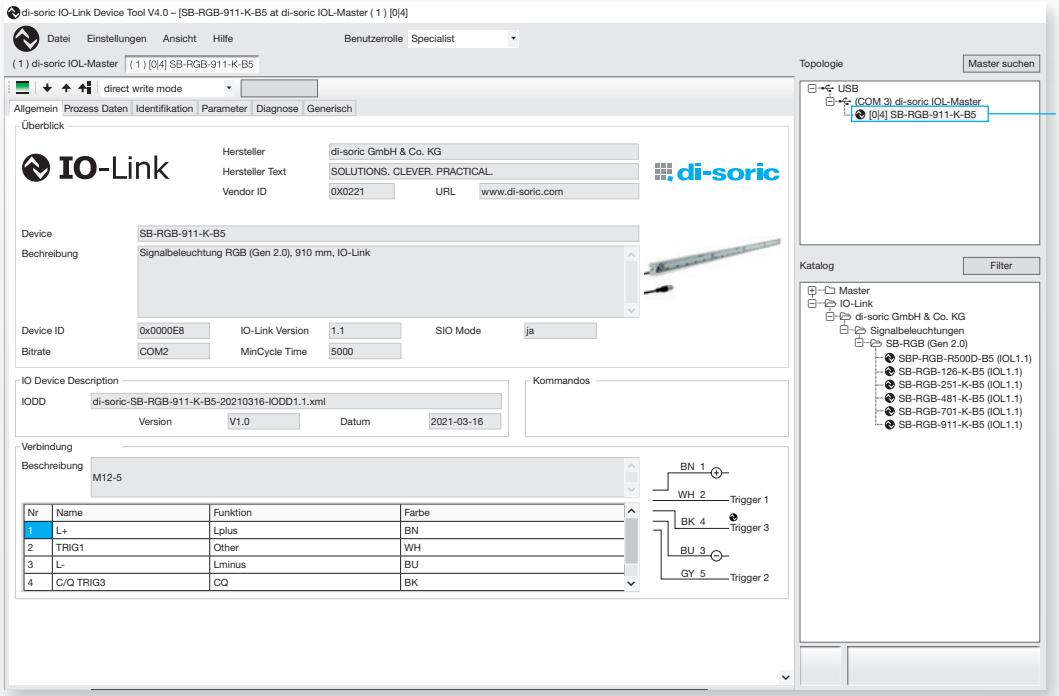
REDUCED COSTS

- Thanks to a virtually infinite number of possible combinations of colors, brightness levels and flash patterns, just one device can meet every individual requirement.

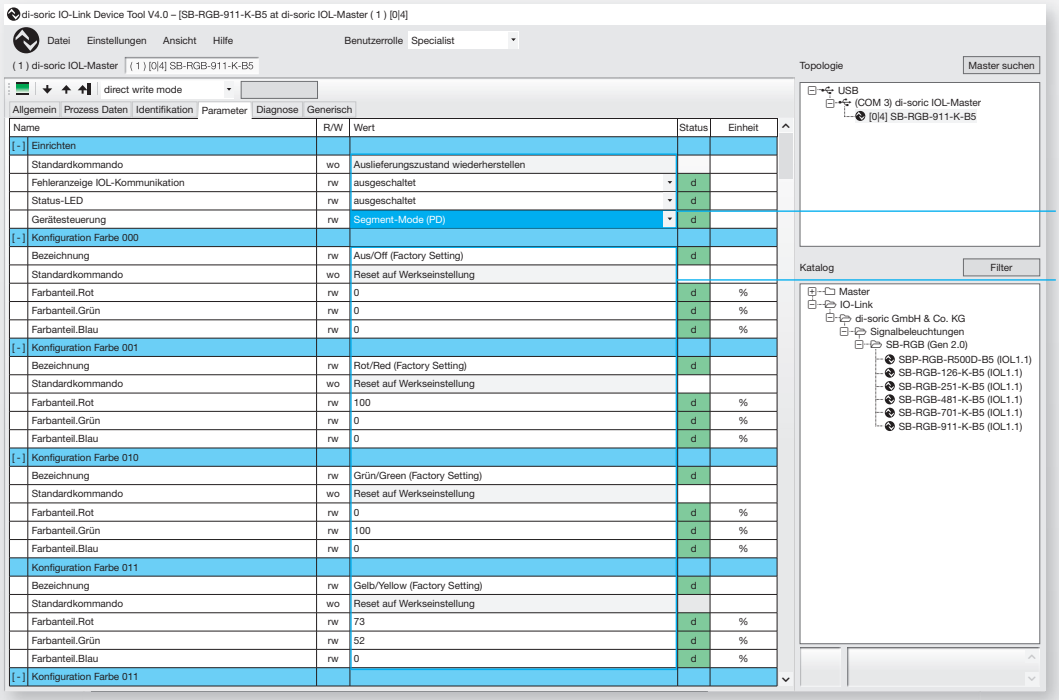
IO-LINK
IODD – IO DEVICE DESCRIPTION

THE IODD

describes sensors and actuators. It contains information to identify devices, device parameters, process and diagnostics data, communications properties, and the structure of user interfaces in engineering tools.
At di-soric, three user levels (operator, maintenance and specialist) are implemented. Each level contains the appropriate range of services.



The di-soric IO-Link master automatically detects which lighting device is connected



Setting the mode

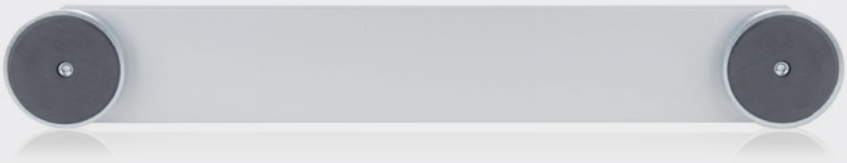
Configuration of the 3 color channels red-green-blue according to color, brightness level and blinking behavior, setup and selection of presets

ACCESSORIES FOR
MACHINE AND SIGNAL LIGHTING

SIMPLE INSTALLATION

Fast, easy and adjustable installation
without drilling or screws

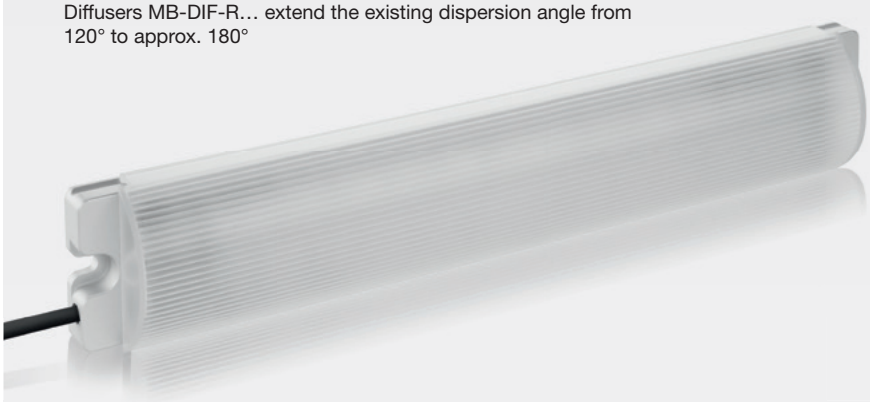
Magnet holder set MB-MHS



LOW-GLARE

Glare is prevented while the machine
or workstation is optimally illuminated.

Diffusers MB-DIF-R... extend the existing dispersion angle from
120° to approx. 180°



Flexible fastening bracket BW-MB

PWM dimmer MB-DIM 2

GENERAL
ACCESSORIES

CONNECTION TECHNOLOGY

In the area of connection technology, a wide variety of electrical contacts for custom industrial-suited assembly are available. This includes connection lines, adapter plugs, and attachable plug connectors.

SIGNAL PREPARATION

Logic distributors can link two sensors with one another (e.g. AND/OR function). Function adapters change switching signals, e.g. npn, pnp, inversion, pulse stretching.

UNIVERSAL FASTENING TECHNOLOGY

di-soric offers tailored bracket and fastening systems for all of its sensors, image processing systems, identification systems and lighting.

CONFIGURATION AND TESTING DEVICES

Configuration and testing devices facilitate function tests of lighting and sensors. IOL Master and IOL Portable enable the diagnosis and the configuration of IO-Link-capable lighting and sensors without additional control. The sensor tester is suited for pnp and npn sensors.

IOL MASTER
Operation on PC via USB

IOL PORTABLE
Handheld operation without PC

SENSOR TESTER
ST 7PNG

SOLUTIONS. CLEVER. PRACTICAL.

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