

MACHINE LIGHTING AND SIGNAL LIGHTS



MACHINE LIGHTING

THE RIGHT LIGHT FOR EVERY APPLICATION

Our extremely luminous and reliable machine lighting is designed for industrial use. From our MB-R series for use in more simple industrial settings to the MB-NP series for very harsh environments. Highly efficient power LEDs and industrial potting encapsulation guarantee outstanding performance data in all series.

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.



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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 befreely 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).



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MACHINE LIGHTING

MB-R SEMICIRCULAR

OUR ALL-IN-ONE MACHINE LIGHTING

Our robust, semicircular machine lighting. It is ideal for use in machines or in rough production environments due to its expanded temperature range, modern plug connection technology and hardened safety glass. The neutral white light ensures pleasant lighting conditions.





Highlights

- Expanded temperature range -20 +50°C
- Integrated diffuser
- Pleasant, neutral white light
- Simple wiring and integration
- IP67 industry-ready
- Homogeneous light distribution
- Shock- and vibration-resistant

Features

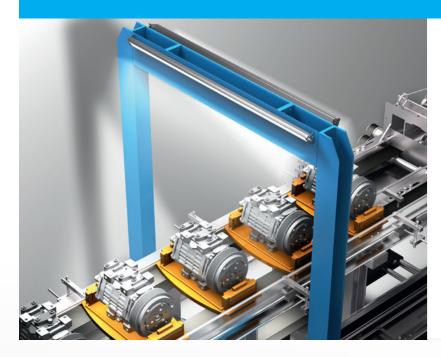
- 7 different lengths
- Semicircular, anodized aluminum housing
- 3 mm safety glass with opal-white glare reduction
- M12 plug connector technology
- Permanently integrated retaining bracket
- White light (5,000K)

MB-R	MB-R-190-B5	MB-R-280-B5	MB-R-365-B5
Dimensions (HxWxD)	37 x 235 x 60 mm	37 x 325 x 60 mm	37 x 410 x 60 mm
Illuminated area	23.5 x 150 mm	23.5 x 240 mm	23.5 x 325 mm

MB-R

APPLICATION EXAMPLES

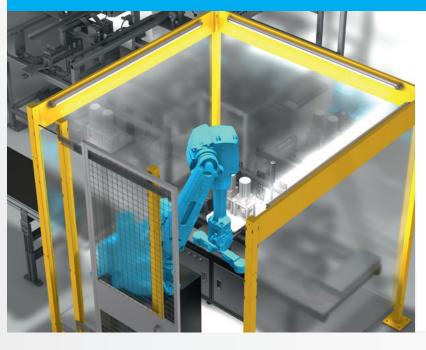
Illumination of conveyor belts



The MB-R is excellently suited for assembly on conveyor belts. With the diffuser already integrated, our MB-R ensures comfortable lighting conditions. Moreover, with the captive retaining brackets, the machine lighting can be aligned optimally on the conveyor line.

Machine lighting MB-R-1040-B5

Illumination of a robot cell



Based on differently sized lighting areas in the portfolio of 19 cm up to 1.5 m, even robotic cells can be illuminated very well with our MB-R. The retaining brackets ensure optimal alignment. The machine operator thereby always has a good view of the machine process.

Machine lighting MB-R-1540-B5

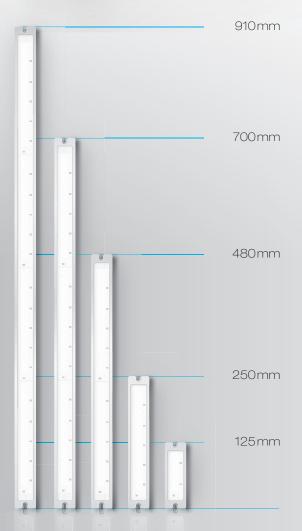
MB-R-540-B5	MB-R-715-B5	MB-R-1040-B5	MB-R-1540-B5
37 x 585 x 60 mm	37 x 760 x 60 mm	37 x 1085 x 60 mm	37 x 1585 x 60 mm
23.5 x 500 mm	23.5 x 675 mm	23.5 x 1000 mm	23.5 x 1500 mm

MACHINE LIGHTING MB-N

HIGHEST EFFICIENCY AND BEST POSSIBLE ILLUMINATION IN MACHINERY

The MB-N machine lighting can be used, due to its flat construction, in narrow machinery spaces. With the load-free trigger input, the lighting can be switched on or off or dimmed directly from the control. They also offer the highest quality light in white. Through a robust, vibration-resistant housing and slim designs, the machine lighting 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 machinery



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

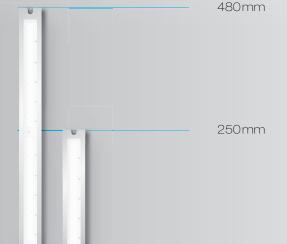
MAXIMUM EFFICIENCY UNDER HARSH AMBIENT CONDITIONS

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.



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

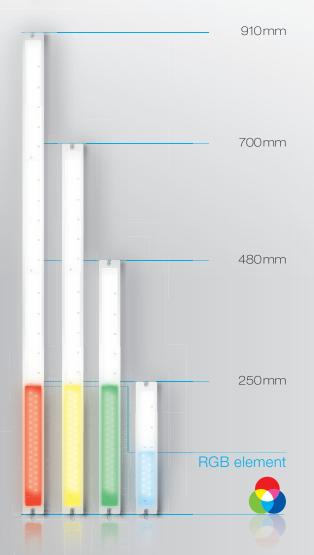
MB-NP	MB-NP-250-K	MB-NP-480-K	
Dimensions (H x W x D)	42.3 x 250 x 16.2 mm	42.3 x 480 x 16.2 mm	
Illuminated area	25 x 216 mm	25 x 436 mm	
Connection	Cable 3.0 m, open end, 3 leads		

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.





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

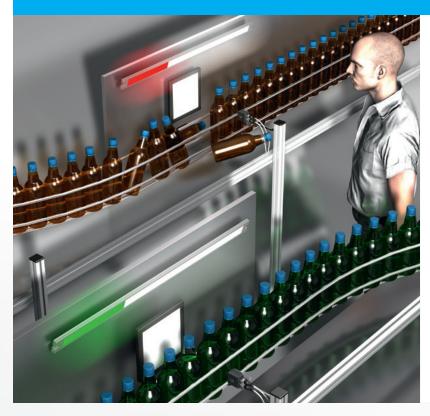
- The RGB light element's individual light functions are easy to configure offline via IO-Link:
 - Virtually infinite number of possible colors
 - Individual brightness levels
 - Different flashing patterns can be assigned to individual colors
- Reduced costs
 - Just one device for every requirement
 - 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-F		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			30 x 870 mm
Connection	Cable: 0.3 m with M12 connector, 5-pin			

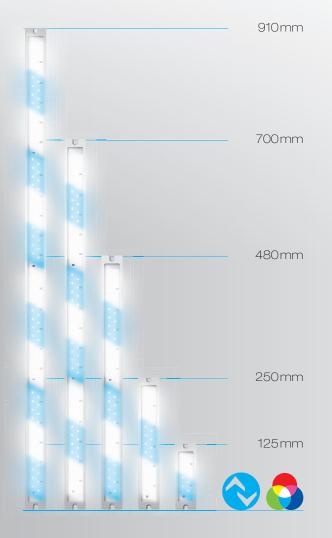
SB-RGB

MULTI-SEGMENT IOL SIGNAL LIGHTING

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

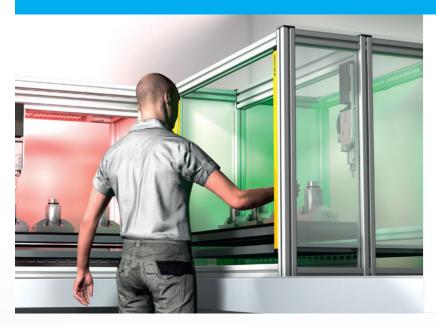
IO-Link features

- 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

APPLICATION EXAMPLES

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

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

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 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				

SIGNAL LIGHTS

SIGNAL COLUMNS SBT-F MULTI-SEGMENT FIXED COLOR

CAN BE USED IMMEDIATELY - ECONOMICAL - EFFICIENT

The multi-segment signal columns from the SBT-F series with their fix defined colors can be used immediately, since each of the 3-5 individual segments can be triggered via its digital inputs.

The signal columns from the SBT-F series are available with 3-5 segments and optionally with a buzzer that is easily audible over long distances.



SBT-F

APPLICATION EXAMPLE

Display of machine conditions visible 360°

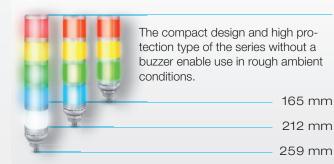


Our SBT-F signal simply signals the machine condition to the operator.

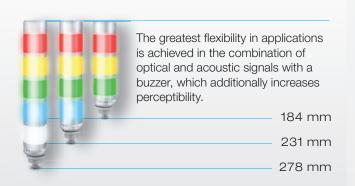
The SBT-F can be used immediately with its permanently allocated colors per segment. The signal tone sounds as soon as the process is concluded.

Signal lighting SBT-F-GYR-R50-3B-B5

SBT-F



SBT-F with Buzzer



SBT-F	SBT-F-GYR-R50-3S-B5	SBT-F-BGYR-R50-4S-B8	SBT-F-WBGYR-R50-5S-B8
Dimensions (ØxH)	Ø 50.6 x 165 mm	Ø 50.6 x 212 mm	Ø 50.6 x 259 mm
SBT-F with buzzer	SBT-F-GYR-R50-3B-B5	SBT-F-BGYR-R50-4B-B8	SBT-F-WBGYR-R50-5B-B8
Dimensions (ØxH)	Ø 50.6 x 184 mm	Ø 50.6 x 231 mm	Ø 50.6 x 278 mm
Segments	3	4	5
Segment colors	Red / yellow / green	Red / yellow / green / blue	Red / yellow / green / blue / white
Illuminated area (Ø x H)	3 x Ø 50 x 37 mm	4 x Ø 50 x 37 mm	5 x Ø 50 x 37 mm

SIGNAL LIGHTS

SIGNAL COLUMNS SBT- RGB MULTI-SEGMENT IOL

CAN BE USED IMMEDIATELY - CAN BE INDIVIDUALLY CONFIGURED - HIGHLY EFFICIENT

The multi-segment signal columns from the SBT-RGB series achieve their maximum flexibility through control by IO-Link, through which they offer a nearly infinite number of colors and possible representation options independent of segment.

Additionally, by way of IO-Link, the individual brightness and the flashing behavior per segment can be parameterized. The signal columns from the SBT- RGB series are available with 3-5 segments and optionally with a buzzer that is easily audible over far distances.





Highlights

- Strong signal effect through bright and homogeneous illumination
- Low energy consumption
- Can be used and integrated immediately
- Simple configuration, reproducibility and control via IO-Link
- Simple installation (M30 threading)

Features

- 6 different variants
 (3-5 segments, with and without buzzer)
- Three trigger inputs (eight predefined / user-defined color settings)
- Easy configuration of individual functions during operation via IO-Link process data:
 - Virtually infinite number of possible colors
 - Individual brightness levels (dimmable segments)
 - Flashing patterns of individual colors
- 360° status display
- Highly efficient LEDs

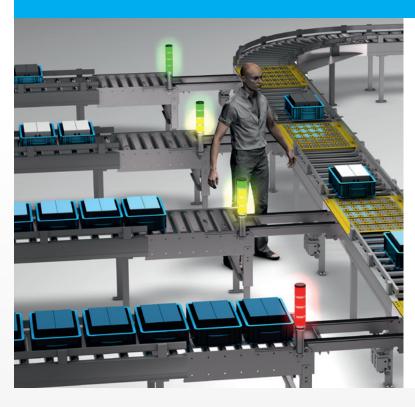




SBT-RGB

APPLICATION EXAMPLE

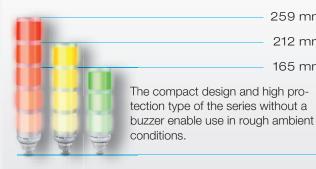
Resource display on conveyor belts visible 360°



Through the integrated Level mode, our SBT-RGB shows the worker at the conveyor belt which belt must be cleared or which belt has no more free resources.

Signal lighting **SBT-RGB-R50-4S-B5**

SBT-RGB



SBT-RGB with Buzzer

			278 mm
TIL			231 mm
	C E No		184 mm
		The greatest flexibility in app is achieved in the combination	
		optical and acoustic signals buzzer, which additionally in	
		perceptibility.	

SBT-RGB	SBT-RGB-R50-3S-B5	SBT-RGB-R50-4S-B5	SBT-RGB-R50-5S-B5
Dimensions (ØxH)	Ø 50.6 x 165 mm	Ø 50.6 x 212 mm	Ø 50.6 x 259 mm
SBT-RGB with buzzer	SBT-RGB-R50-3B-B5	SBT-RGB-R50-4B-B5	SBT-RGB-R50-5B-B5
Dimensions (ØxH)	Ø 50.6 x 184 mm	Ø 50.6 x 231 mm	Ø 50.6 x 278 mm
Segments	3	4	5
Segment colors	Freely definable via IO-Link / 8 preconfigured presets		
Illuminated area (Ø x H)	3 x Ø 50 x 37 mm	4 x Ø 50 x 37 mm	5 x Ø 50 x 37 mm

259 mm 212 mm 165 mm

SIGNAL LIGHTS

SBP-RGB 1-SEGMENT IOL



High-efficiency and multifunctionality: The dome-shaped signal lighting 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

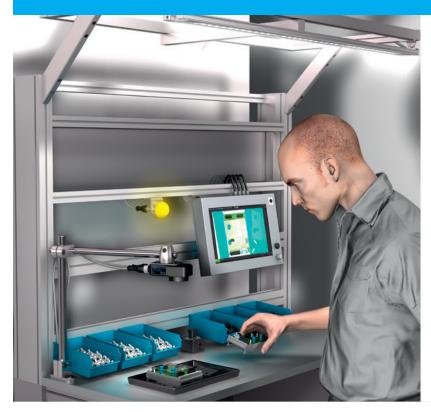
- Can be configured during operation via IO-Link process data
- Up to 8 predefined or user-defined color configurations can be displayed through 3 digital trigger inputs
- Optimal display of status
- Diffuse, very homogeneous light field
- IP67 as a robust (impact-resistant) design
- Easy installation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

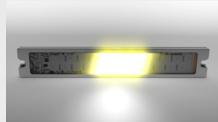
SIGNAL LIGHTS WITH IO-LINK

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.







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).







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.

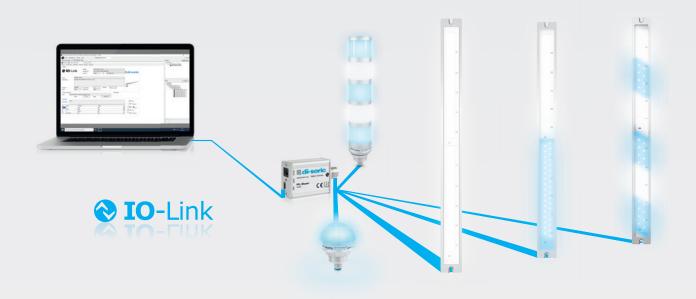


CLEVER THANKS TO IO-LINK

SAVE TIME AND MONEY

GET STRAIGHT TO THE POINT

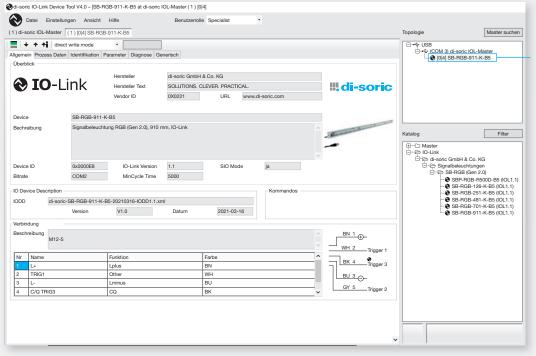
Our SBT-RGB multi-segment IOL signal columns, SB-RGB multi-segment IOL signal lighting and SBP-RGB 1-Segment IOL signal lighting have the same IO-Link functions and are configured the same. They can also be configured in ongoing operation directly via IO-Link process data in accordance with customer requirements.



IODD - IO DEVICE DESCRIPTION

It describes sensors and actuators. It holds 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

In further steps the operating modes can be set and the color channels can be easily parameterized.

MACHINE AND SIGNAL LIGHTING ACCESSORIES

SIMPLE INSTALLATION

Fast, easy and adjustable installation without drilling or screws



LOW-GLARE

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



ACCESSORIES FOR SBT

To be able to assemble our new signal columns in an industry-suitable manner, we offer flexible assembly accessories - whether on the wall or standing on the machine.



SBT assembly flange SBT-MF-M30



SBT extension tube SBT-VR-100-M30



SBT mounting bracket SBT-BW-M30

Our complete range of products and accessories can be found at www.di-soric.com

GENERAL INFORMATION 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 MOUNTING 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



SENSOR TESTER ST 7PNG

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SOLUTIONS. CLEVER. PRACTICAL.

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