

Wählen Sie das ideale Band für Ihre individuellen Aufgaben

## LICHTBÄNDER IN VIELFÄLTIGEN LÄNGEN

Unsere Lichtbänder BOH erhalten Sie in noch größerer Variantenvielfalt: in den Lichtbandlängen von 10 bis 300 mm. Dadurch können Sie die ideale Lichtbandlänge für Ihre individuellen Applikationen wählen. Die kompakte Bauweise der Lichtbänder ermöglicht es Ihnen, die Sensorköpfe perfekt in enge Bauräume in Maschinen und an Fertigungslinien zu integrieren. Zusätzlich erlaubt es der nutzbare Arbeitsabstand von 10 bis zu 500 mm, große Flächen mit den Lichtbändern abzudecken. Beispielsweise können Sie so Kleinteile-Erkennungen auf eine besonders platzsparende Weise und Auswurfkontrollen über eine sehr große Fläche hinweg umsetzen.

Für den Einsatz der Lichtbänder können Sie entsprechend Ihrer Anforderung zwischen Analogverstärkern, Schaltverstärkern oder dynamischen Verstärkern wählen.

### Analogverstärker BAE

In Kombination mit einem Analogverstärker BAE können Sie den Signalverlauf in der Anwendung vollständig nutzen. Auch die Kennlinien unserer Lichtbänder haben mit dem Analogverstärker eine hohe Linearität, sodass das Signal sehr präzise gesteuert werden kann. (BAE00N6, BAE00N4, BAE00N5, BAE00NH)

### Schaltverstärker BAE

Durch die hochwertige Elektronik des Schaltverstärkers BAE sind unter guten Bedingungen Wiederholgenauigkeiten von weniger als 50 µm möglich. Dies ist beispielsweise ideal für Bahnkantensteuerungen, bei denen Veränderungen in eine Richtung überwacht werden müssen. (BAE00NE, BAE00PR, BAE00NF, BAE00PT, BAE00NL, BAE00NK)

### Dynamische Verstärker BAE

Setzen Sie die Lichtbänder mit dynamisch schaltenden Verstärkern ein, so können Sie sehr kleine fallende Objekte im gesamten Messfeld erkennen. Auch abrupte Zustandsveränderungen, wie sie bei der Überwachung von Fäden oder Drähten auftreten können, lassen sich mit unseren Lichtbändern ideal abbilden. (BAE00NJ, BAE00N7)

### Die Besonderheiten

- hohe Wiederholgenauigkeit
- gute Linearität
- kompakte Bauweise
- große Variantenvielfalt
- nutzbarer Arbeitsabstand von 10...500 mm



MICROMOTE –  
OPTISCHE SENSORKÖPFE BOH



MESSBEREICH	10 MM (0.15mm Auflösung)	BOH00F5	
	30 MM (0.5mm Auflösung)	BOH00F6	
	50 MM (0.8mm Auflösung)	BOH00F7	
	80 MM (1.2mm Auflösung)		BOH00FF
	100 MM (1.5mm Auflösung)		BOH00FH
	160 MM (2.4mm Auflösung)		BOH00FJ
	200 MM (3.0mm Auflösung)		BOH00FK
	300 MM (4.5mm Auflösung)		BOH00FL
Funktionsprinzip	Optischer Sensorkopf	Optischer Sensorkopf	
Funktionsprinzip optisch	Einweglichtschanke	Einweglichtschanke	
Optische Besonderheit	Lichtband	Lichtband	
Lichtart	LED Infrarot	LED Infrarot	
Reichweite	10...500 mm (10...300 mm BOH00F5)	10...500 mm	
Anschluss	Kabel mit Steckverbinder, M8-Buchse, 3-polig, 1 m, PUR	Kabel mit Steckverbinder, M8-Buchse, 3-polig, 2 m, PUR	
Gehäusematerial	PA 6	Aluminium, eloxiert, schwarz	
Aktive Fläche, Material	PMMA	PMMA	

ANALOGVERSTÄRKER BAE



SPANNUNG 0... 10 V	BAE00NH	BAE00N6
STROM 4...20 mA	BAE00N4	BAE00N5
Anschluss	Kabel, 2 m, PVC	M8-Stecker, 4-polig

SCHALTVERSTÄRKER BAE

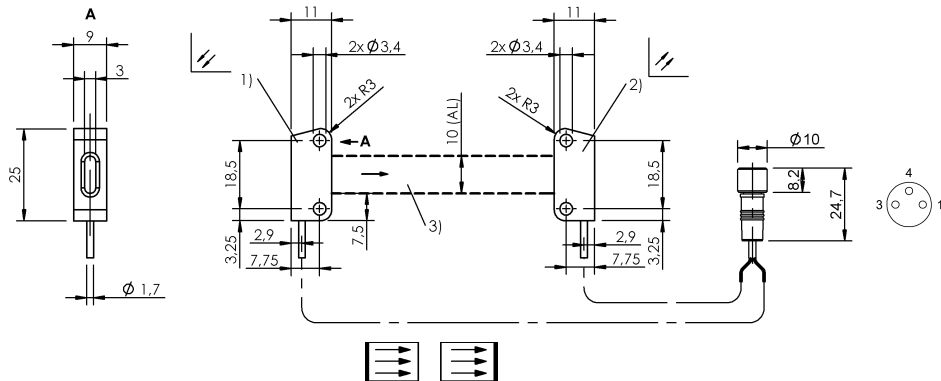


PNP SCHLIESSER/ÖFFNER	BAE00NE	BAE00NF	BAE00NL	BAE00NK
NPN SCHLIESSER/ÖFFNER	BAE00PR	BAE00PT		
Zusätzliche Eigenschaften			Auto-Synchronisation	Auto-Synchronisation
Anschluss	Kabel, 2 m, PVC	M8-Stecker, 4-polig	Kabel, 2 m, PVC	M8-Stecker, 4-polig

DYNAMISCHE VERSTÄRKER BAE



PNP DYNAMISCH SCHLIESSER/ÖFFNER	BAE00NJ	BAE00N7
Anschluss	Kabel, 2 m, PVC	M8-Stecker, 4-polig



1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square Connection 90°

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	1 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 1 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	6342 a
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### Material

<b>Housing material</b>	PA 6
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA

### Mechanical data

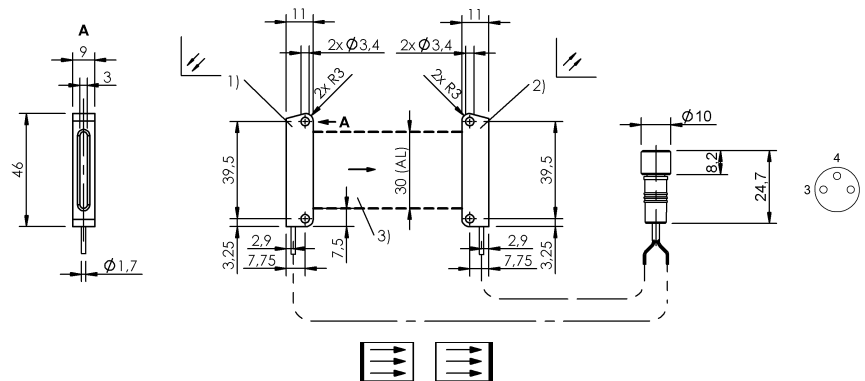
<b>Dimension</b>	11 x 9 x 25 mm
<b>Mounting</b>	Screw M3 (2x)

### Optical features

<b>Blind zone</b>	5 mm
<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	0.15 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	850 nm

### Range/Distance

<b>Active length AL 1</b>	10 mm
<b>Range</b>	10...300 mm
<b>Rated operating distance Sn</b>	300 mm
<b>Resolution</b>	1 % FS



1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	1 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 1 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	2283 a
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### Material

<b>Housing material</b>	PA 6
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA

### Mechanical data

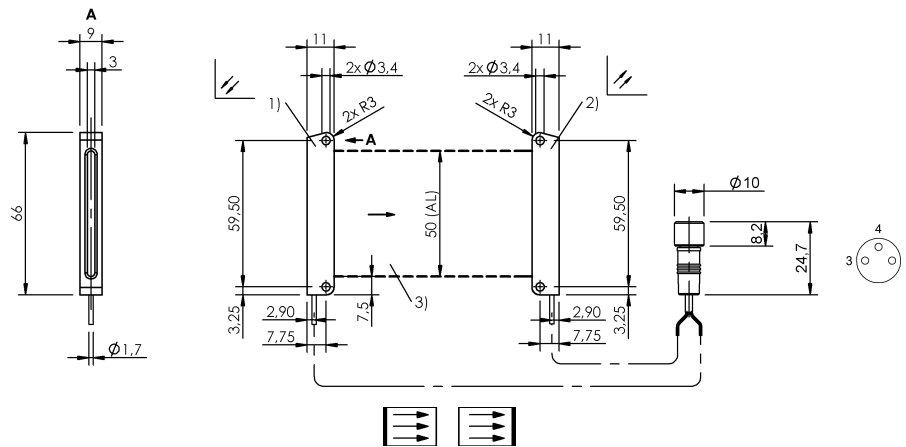
<b>Dimension</b>	11 x 9 x 46 mm
<b>Mounting</b>	Screw M3 (2x)

### Optical features

<b>Blind zone</b>	5 mm
<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	0.50 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	850 nm

### Range/Distance

<b>Active length AL 1</b>	30 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS



1) Emitter, 2) Receiver, 3) Light array



**Basic features**

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square

**Electrical connection**

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	1 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 1 m, PUR
<b>Contact, surface protection</b>	Gold plated

**Environmental conditions**

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

**Functional safety**

<b>MTTF (40 °C)</b>	1392 a
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**Material**

<b>Housing material</b>	PA 6
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA

**Mechanical data**

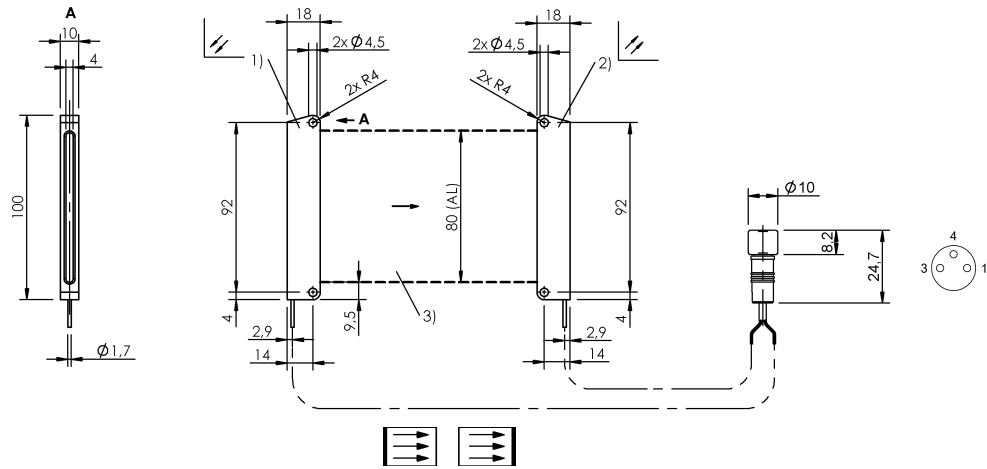
<b>Dimension</b>	11 x 9 x 66 mm
<b>Mounting</b>	Screw M3 (2x)

**Optical features**

<b>Blind zone</b>	5 mm
<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	0.80 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	850 nm

**Range/Distance**

<b>Active length AL 1</b>	50 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS



1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square Connection 90°

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	2 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 2 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	1730 a
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### Material

<b>Housing material</b>	Aluminum, anodized, black
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA
<b>Surface protection</b>	anodized, black

### Mechanical data

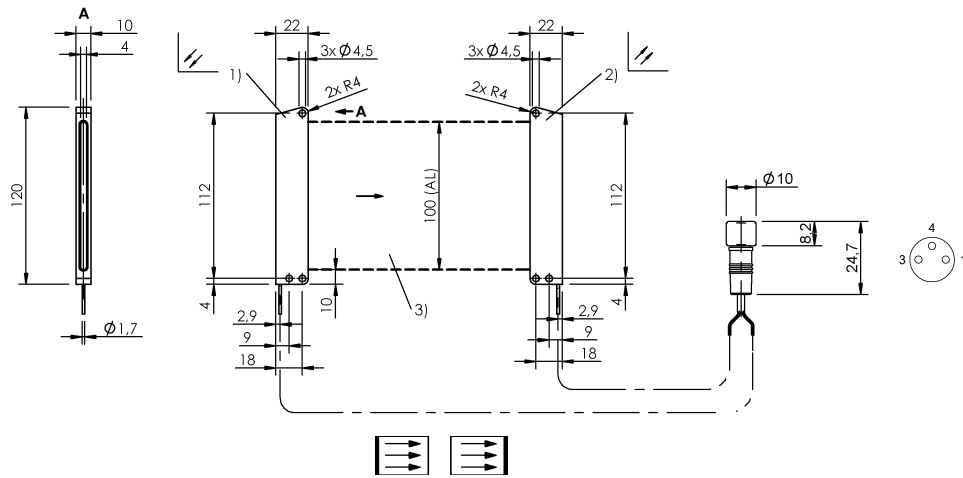
<b>Dimension</b>	18 x 10 x 100 mm
<b>Mounting</b>	Screw M4 (2x)

### Optical features

<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	1.20 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	950 nm

### Range/Distance

<b>Active length AL 1</b>	80 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS



1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square Connection 90°

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	2 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 2 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	1392 a
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### Material

<b>Housing material</b>	Aluminum, anodized, black
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA
<b>Surface protection</b>	anodized, black

### Mechanical data

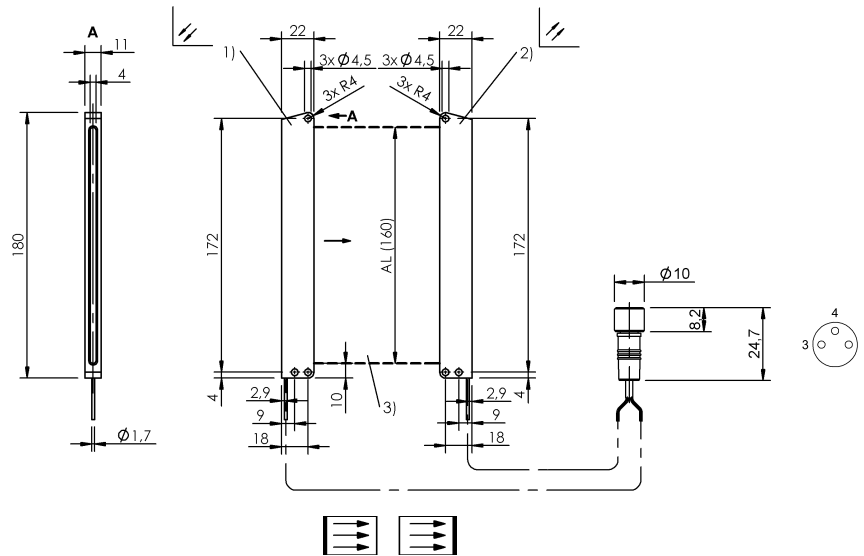
<b>Dimension</b>	22 x 10 x 120 mm
<b>Mounting</b>	Screw M4 (3x)

### Optical features

<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	1.50 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	950 nm

### Range/Distance

<b>Active length AL 1</b>	100 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS



1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square Connection 90°

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	2 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 2 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	878 a
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### Material

<b>Housing material</b>	Aluminum, anodized, black
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA
<b>Surface protection</b>	anodized, black

### Mechanical data

<b>Dimension</b>	22 x 11 x 180 mm
<b>Mounting</b>	Screw M4 (3x)

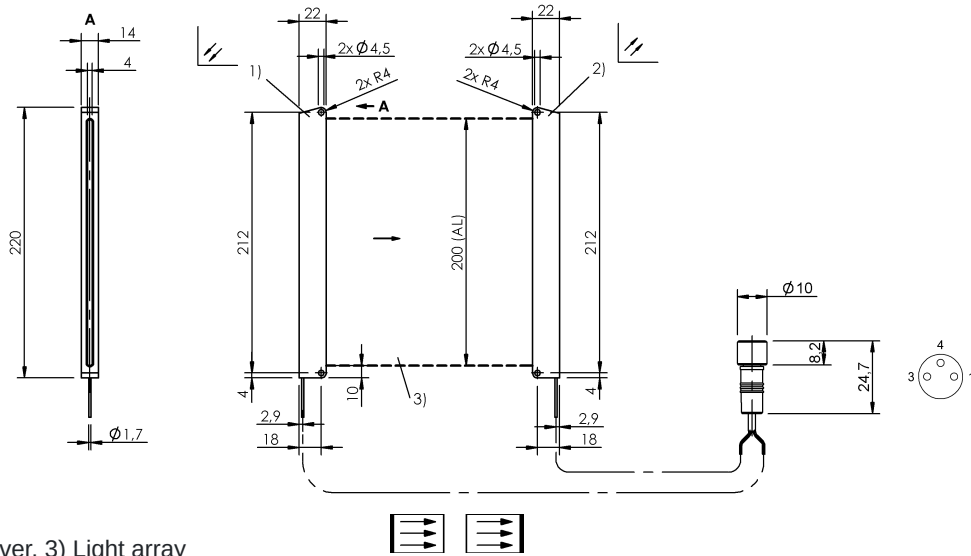
### Optical features

<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	2.4 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	950 nm

### Range/Distance

<b>Active length AL 1</b>	160 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS





1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square Connection 90°

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	2 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 2 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	705 a
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### Material

<b>Housing material</b>	Aluminum, anodized, black
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA
<b>Surface protection</b>	anodized, black

### Mechanical data

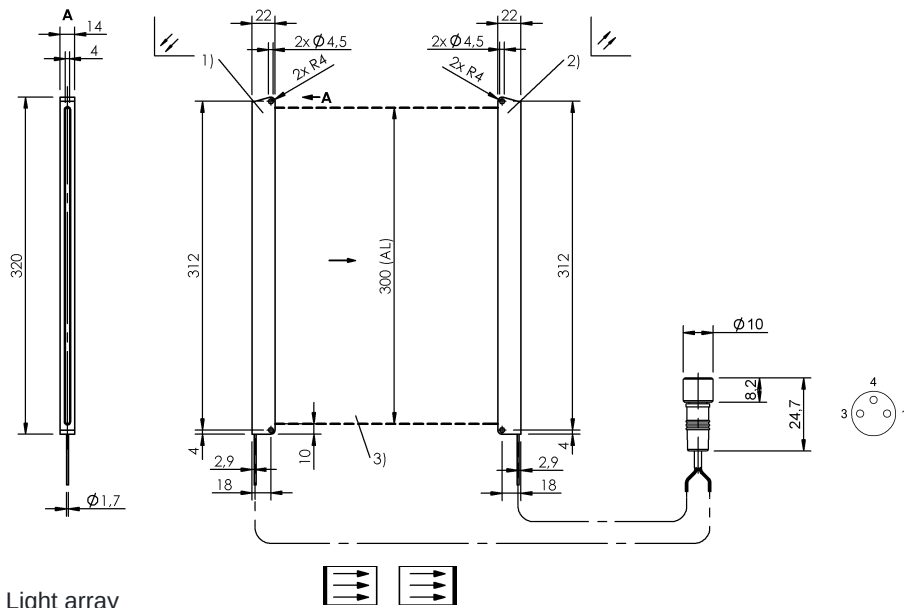
<b>Dimension</b>	22 x 14 x 220 mm
<b>Mounting</b>	Screw M4 (2x)

### Optical features

<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	3.0 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	950 nm

### Range/Distance

<b>Active length AL 1</b>	200 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS



1) Emitter, 2) Receiver, 3) Light array



### Basic features

<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Optical sensor head
<b>Scope of delivery</b>	1 Emitter + 1 Receiver User manual
<b>Style</b>	Square Connection 90°

### Electrical connection

<b>Cable diameter D</b>	1.7 mm
<b>Cable length L</b>	2 m
<b>Connection</b>	Cable with connector, M8x1- Female, 3-pin, 2 m, PUR
<b>Contact, surface protection</b>	Gold plated

### Environmental conditions

<b>Ambient temperature</b>	-10...55 °C
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	472 a
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### Material

<b>Housing material</b>	Aluminum, anodized, black
<b>Material jacket</b>	PUR
<b>Material sensing surface</b>	PMMA
<b>Surface protection</b>	anodized, black

### Mechanical data

<b>Dimension</b>	22 x 14 x 320 mm
<b>Mounting</b>	Screw M4 (2x)

### Optical features

<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED infrared
<b>Principle of optical operation</b>	Through-beam sensor
<b>Smallest part typ.</b>	4.5 mm
<b>Special optical feature</b>	Light array
<b>Wave length</b>	950 nm

### Range/Distance

<b>Active length AL 1</b>	300 mm
<b>Range</b>	10...500 mm
<b>Rated operating distance Sn</b>	500 mm
<b>Resolution</b>	1 % FS