

# SLSR 95



## Protective throughbeam photoelectric sensor

### ⚠ Safety note:

- The protective throughbeam photoelectric sensor is a contactless active protective device only in connection with a safety-relevant control system, in which the cyclical testing of transmitter and receiver is carried out according to EN 61496-1, category 2 (testing).
- The power supply unit used to operate the photoelectric sensor has to be able to compensate for changes and interruptions of the supply voltage acc. to EN 61496-1. Minimum blackening object:  $\varnothing$  13mm.

## Accessories

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)
- Ready-made cables in straight or angular versions, length 5m (KB ...)
- Test-monitoring unit:
  - TNT 35 (Art. no. 500 33058)
  - TMC 66 (Art. no. 500 82121)

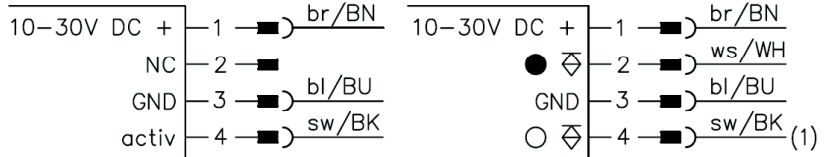


Leuze electronic GmbH + Co. KG

## Features

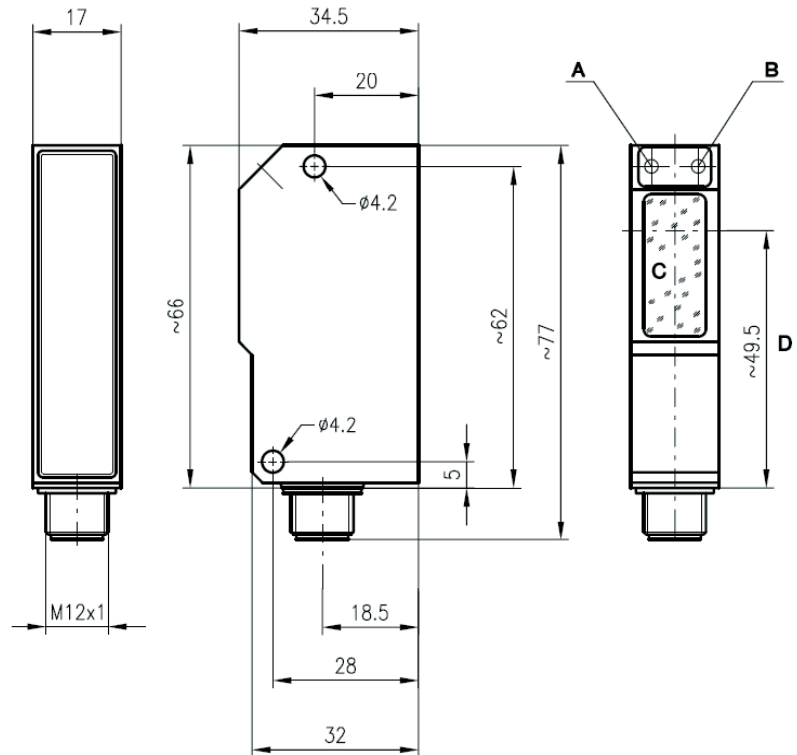
- Protective throughbeam photoelectric sensor with high performance reserve in visible red light
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67 for industrial application
- Complementary outputs for light/dark switching or as a control function

## Electrical Connection



(1) For operation with Leuze test-monitoring units, the photoelectric sensor must be connected in light switching mode (pin 4)

## Dimensional Drawing



- A Switching indicator yellow
- B Operation indicator green
- C Transmitter/receiver
- D Optical axis

## Order guide

	Designation	Art. no.
Transmitter and receiver	SLSR 95/44.8 L	
Transmitter	SLSR 95/2.8 SE-L	500 80183
Receiver	SLSR 95/44 E-L	500 80184

## Technical Data

<b>Optical data</b>	
Typ. operating range limit <sup>1)</sup>	0 ... 10m
Operating range <sup>2)</sup>	0 ... 8m
Light source	LED (modulated light)
Wavelength	660nm
<b>Timing</b>	
Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 100ms
<b>Electrical data</b>	
Operating voltage U <sub>B</sub>	10 ... 30V DC (incl. residual ripple)
Residual ripple	≤ 15% of U <sub>B</sub>
Bias current	≤ 35mA
Switching output	2 PNP transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	≥(U <sub>B</sub> -2V) / ≤ 2V
Output current	max. 100mA
<b>Indicators</b>	
<b>Receiver</b>	
LED green	ready
LED yellow	light path free
LED yellow flashing	light path free, no performance reserve
<b>Transmitter</b>	
LED green	ready
LED yellow	transmitter ON
<b>Mechanical data</b>	
Housing	diecast zinc
Optics cover	glass
Weight	90g
Connection type	M12 connector, stainless steel receiver 4-pin, transmitter 4-pin
<b>Environmental data</b>	
Ambient temp. (operating/storage)	-25°C (-30°C) ... +60°C/-40°C ... +70°C
Protective circuit <sup>3)</sup>	2, 3
VDE safety class <sup>4)</sup>	II, all-insulated
Protection class	IP 67
Standards applied	IEC 60947-5-2
<b>Options</b>	
<b>Activation input active</b>	
Transmitter active/not active	≥ 8V/ ≤ 2V or not connected
Activation/disable delay	≤ 1ms
Input resistance	4.76kΩ ± 10%

1) Typ. operating range limit: max. attainable range without performance reserve

2) Operating range: recommended range with performance reserve

3) -30°C with operating voltage continuously applied

4) 2= polarity reversal protection, 3= short circuit protection for all outputs

5) Rating voltage 250 VAC



## ILS 95

## Throughbeam photoelectric sensors

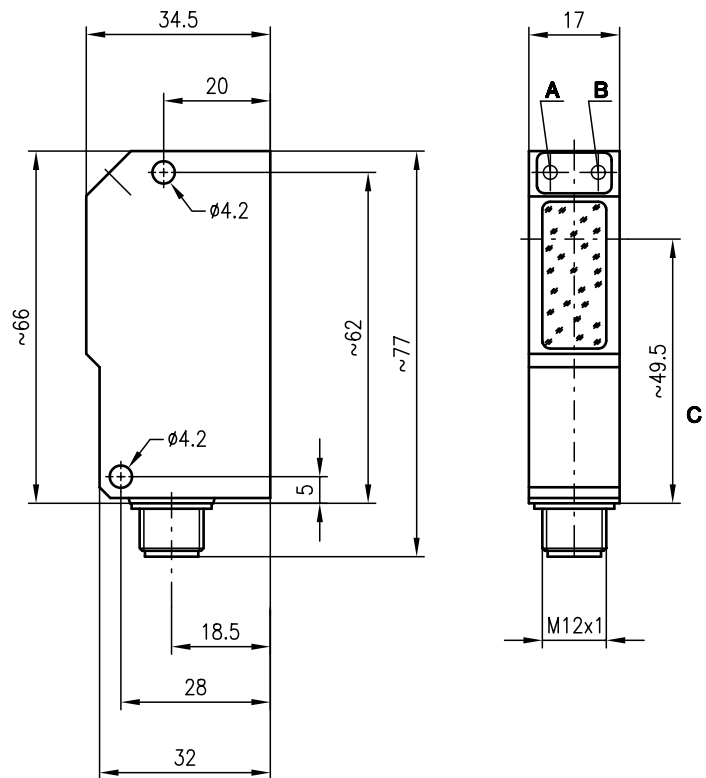


0 ... 20m

10 - 30 V  
DC

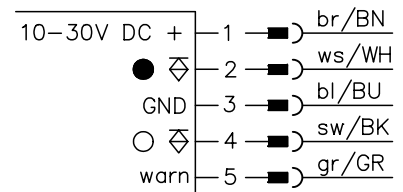
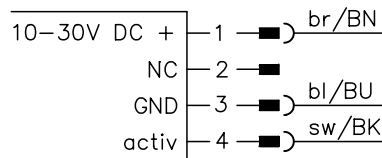
- Throughbeam photoelectric sensor with high performance reserve using visible red light or infrared light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Complementary switching outputs for light/dark switching or as a control function

### Dimensioned drawing



- A Switching indicator yellow
- B Operation indicator green
- C Optical axis

### Electrical connection



### Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>  
 Operating range <sup>2)</sup>  
 Light source  
 Wavelength

### ILS 95/44.8 L.1

**Infrared light**  
 0 ... 20m  
 0 ... 12m  
 LED (modulated light)  
 880nm

### ILSR 95/44.8 L

**Red light**  
 0 ... 20m  
 0 ... 12m  
 LED (modulated light)  
 660nm

### Timing

Switching frequency  
 Response time  
 Delay before start-up

1000Hz  
 0.5ms  
 ≤ 100ms

### Electrical data

Operating voltage  $U_B$   
 Residual ripple  
 Bias current  
 Switching output  
 Function characteristics  
 Signal voltage high/low  
 Output current

10 ... 30VDC (incl. residual ripple)  
 ≤ 15% of  $U_B$   
 ≤ 35mA  
 2 PNP transistor outputs, complementary  
 light/dark switching  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA

### Indicators

LED green  
 LED yellow  
 LED yellow flashing

ready  
 light path free  
 light path free, no performance reserve

### Mechanical data

Housing  
 Optics cover  
 Weight  
 Connection type

diecast zinc  
 glass  
 90g  
 M12 connector, stainless steel  
 receiver 5-pin, transmitter 4-pin

### Environmental data

Ambient temp. (operation/storage)<sup>3)</sup>  
 Protective circuit <sup>4)</sup>  
 VDE safety class <sup>5)</sup>  
 Protection class  
 LED class  
 Standards applied

-25°C (-30°C) ... +60°C/-40°C ... +70°C  
 2, 3  
 II, all-insulated  
 IP 67, IP 69K <sup>6)</sup>  
 1 (acc. to EN 60825-1)  
 IEC 60947-5-2

### Options

**Activation input** activ  
 Transmitter active/not active  
 Activation/disable delay  
 Input resistance

≥ 8V/≤ 2V or not connected  
 ≤ 1ms  
 4.7kΩ ± 10%

**Warning output autoControl** warn  
 Signal voltage high/low  
 Output current

PNP transistor, counting principle  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250VAC
- 6) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

## Order guide

	Designation	Part No.
<b>Infrared light</b>		
Transmitter and receiver	ILS 95/44.8 L.1	
Transmitter	LS 95/2.8 SE-L.1	500 26835
Receiver	ILS 95/44 E-L.1	500 26836
<b>Red light</b>		
Transmitter and receiver	ILSR 95/44.8 L	
Transmitter	LSR 95/2.8 SE-L	500 25606
Receiver	ILSR 95/44 E-L	500 25608

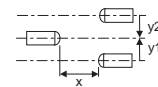
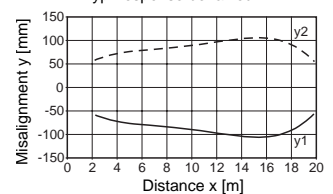
## Tables

0	12	20
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□ Operating range [m]  
 □ Typ. operating range limit [m]

## Diagrams

Typ. response behaviour



## Remarks

- The throughbeam photoelectric sensor using visible red light is also available with integrated AS-i chip for direct connection to the AS-i system.



LSR 95

Throughbeam photoelectric sensors

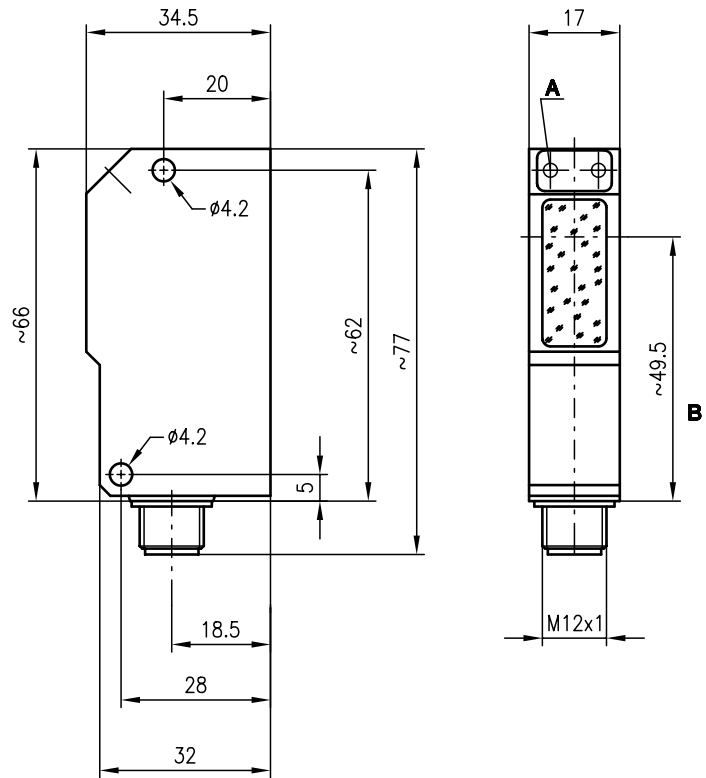


0 ... 10m



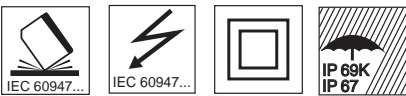
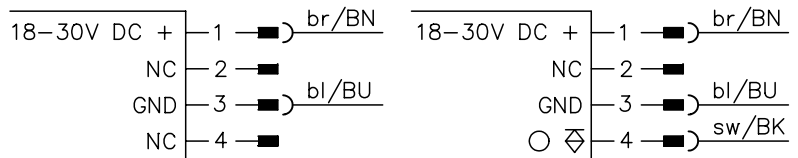
- Throughbeam photoelectric sensor with high performance reserve in red light
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Mounting holes and M12 connector for fast installation

Dimensioned drawing



- A Switching indicator yellow
- B Optical axis

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

We reserve the right to make changes • 95\_a02e.fm



### Specifications

#### Optical data

Typ. operating range limit <sup>1)</sup>  
Operating range <sup>2)</sup>  
Light source  
Wavelength

**LSR 95/4 L**  
0 ... 10m  
0 ... 6m  
LED (modulated light)  
660nm (visible red light)

#### Timing

Switching frequency  
Response time  
Delay before start-up

200Hz  
2.5ms  
≤ 100ms

#### Electrical data

Operating voltage  $U_B$   
Residual ripple  
Bias current  
Switching output  
Function characteristics  
Signal voltage high/low  
Output current

18 ... 30VDC (incl. residual ripple)  
≤ 15% of  $U_B$   
≤ 30mA  
1 PNP transistor output  
light switching  
≥ ( $U_B - 2V$ ) / ≤ 2V  
max. 100mA

#### Indicators

LED yellow

light path free

#### Mechanical data

Housing  
Optics cover  
Weight  
Connection type

diecast zinc  
glass  
90g  
M12 connector, stainless steel  
receiver 4-pin, transmitter 4-pin

#### Environmental data

Ambient temp. (operation/storage)  
Protective circuit <sup>3)</sup>  
VDE safety class <sup>4)</sup>  
Protection class  
LED class  
Standards applied

-20°C ... +60°C / -30°C ... +70°C  
2, 3  
II, all-insulated  
IP 67, IP 69K <sup>5)</sup>  
1 (acc. to EN 60825-1)  
IEC 60947-5-2

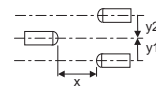
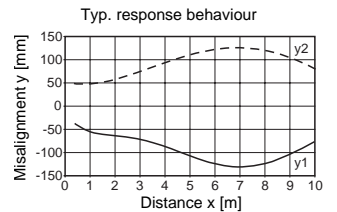
- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250VAC
- 5) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

### Tables

0	6	10
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Operating range [m]  
 Typ. operating range limit [m]

### Diagrams



### Order guide

	Designation	Part No.
Transmitter and receiver	LSR 95/4 L	
Transmitter	LSR 95/2 SE-L	500 27991
Receiver	LSR 95/4 E-L	500 27992

### Remarks

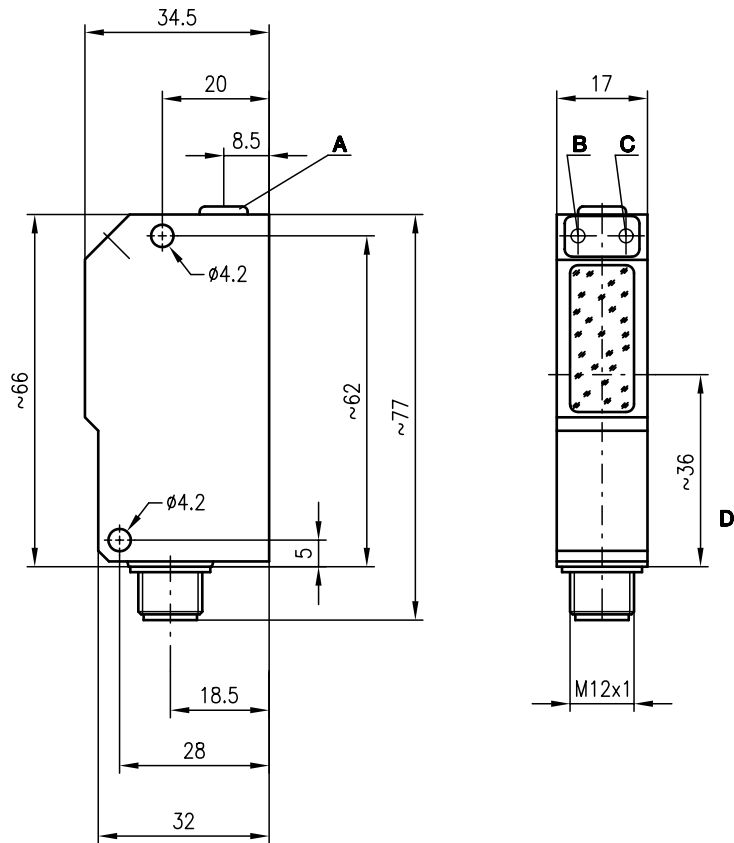


ILSR 95

Throughbeam photoelectric sensors



Dimensioned drawing



- A Sensitivity adjustment
- B Switching indicator yellow
- C Operation indicator green
- D Optical axis

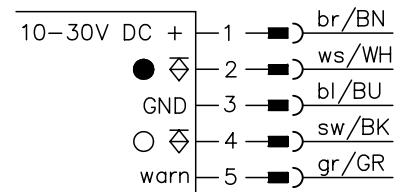
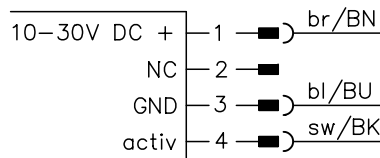


0 ... 18m



- Throughbeam photoelectric sensor with high performance reserve in red light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Complementary switching outputs for light/dark switching or as a control function
- Very good alignment through wide switching lobe
- Sensitivity adjustment for optimal adaptation to the application

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

We reserve the right to make changes • 95\_a05e.fm

## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>	0 ... 18m
Operating range <sup>2)</sup>	0 ... 12m
Light source	LED (modulated light)
Wavelength	660nm

### Timing

Switching frequency	1000Hz
Response time	0.5ms
Delay before start-up	≤ 100ms

### Electrical data

Operating voltage $U_B$	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of $U_B$
Bias current	≤ 35mA
Switching output	2 PNP transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	≥ ( $U_B - 2V$ )/≤ 2V
Output current	max. 100mA
Sensitivity	adjustable with multiturn potentiometer

### Indicators

LED green	ready
LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

### Mechanical data

Housing	diecast zinc
Optics cover	glass
Weight	90g
Connection type	M12 connector, stainless steel receiver 4-pin, transmitter 4-pin

### Environmental data

Ambient temp. (operation/storage) <sup>3)</sup>	25°C (-30°C) ... +60°C/-40°C ... +70°C
Protective circuit <sup>4)</sup>	2, 3
VDE safety class <sup>5)</sup>	II, all-insulated
Protection class	IP 67, IP 69K <sup>6)</sup>
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

### Options

<b>Activation input</b> activ	
Transmitter active/not active	≥ 8V/≤ 2V or not connected
Activation/disable delay	≤ 1ms
Input resistance	4.7kΩ ± 10%
<b>Warning output autoControl</b> warn	
Signal voltage high/low	PNP transistor, counting principle
Output current	≥ ( $U_B - 2V$ )/≤ 2V max. 100mA

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250VAC
- 6) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

## Order guide

	Designation	Part No.
Transmitter and receiver	ILSR 95/44.8 L.1	
Transmitter	LSR 95/2.8 SE-L.1	500 34509
Receiver	ILSR 95/44 E-L.1	500 34510

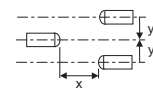
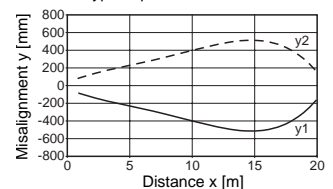
## Tables

0	12	18
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<input type="checkbox"/>	Operating range [m]
<input type="checkbox"/>	Typ. operating range limit [m]

## Diagrams

Typ. response behaviour



## Remarks

**PRK 95**

**Retro-reflective photoelectric sensors with polarisation filter**

Part No. 501 11241

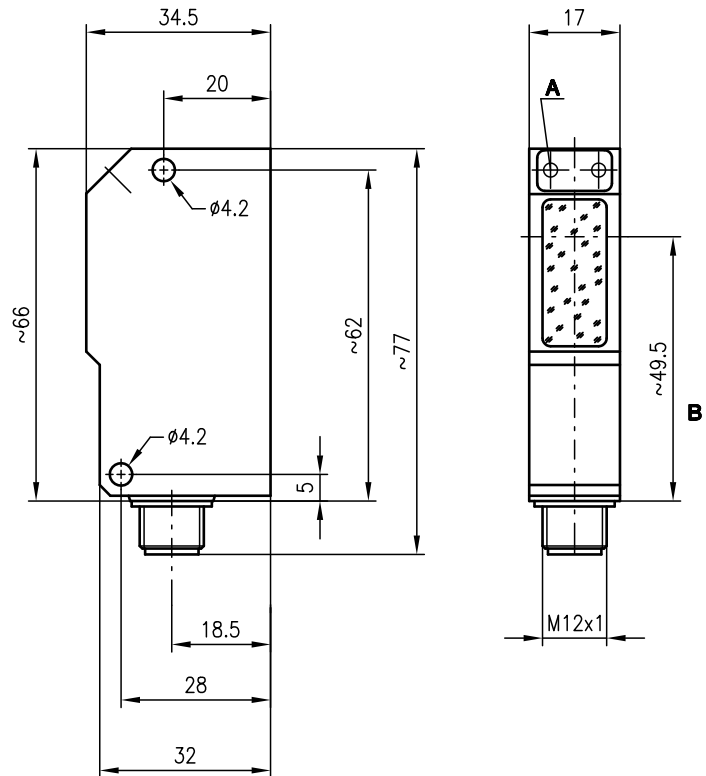


**0 ... 5m**



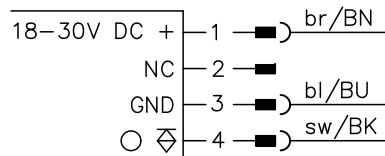
- Polarised retro-reflective photoelectric sensor using visible red light
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- Polarisation filter blocks unwanted reflections
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Mounting holes and M12 connector for fast installation

**Dimensioned drawing**



- A** Switching indicator yellow
- B** Optical axis

**Electrical connection**



**Accessories:**

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)
- Reflectors
- Reflective tapes

We reserve the right to make changes • 95\_b01.gb.fm

**Specifications**

**Optical data**

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup> 0 ... 5m  
 Operating range <sup>2)</sup> see tables  
 Light beam characteristic divergent  
 Light source LED (modulated light)  
 Wavelength 660nm (visible red light, polarised)

**Timing**

Switching frequency 200Hz  
 Response time 2.5ms  
 Delay before start-up ≤ 100ms

**Electrical data**

Operating voltage  $U_B$  18 ... 30VDC (incl. residual ripple)  
 Residual ripple ≤ 15% of  $U_B$   
 Bias current ≤ 30mA  
 Switching output 1 PNP transistor output  
 Function characteristics light switching  
 Signal voltage high/low ≥ ( $U_B - 2V$ ) / ≤ 2V  
 Output current max. 100mA

**Indicators**

LED yellow light path free

**Mechanical data**

Housing diecast zinc  
 Optics cover glass  
 Weight 90g  
 Connection type M12 connector, stainless steel, 4-pin

**Environmental data**

Ambient temp. (operation/storage) -20°C ... 60°C / -30°C ... +70°C  
 Protective circuit <sup>3)</sup> 2, 3  
 VDE safety class <sup>4)</sup> II, all-insulated  
 Protection class IP 67, IP 69K <sup>5)</sup>  
 LED class 1 (acc. to EN 60825-1)  
 Standards applied IEC 60947-5-2

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250VAC
- 5) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

**Tables**

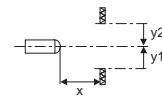
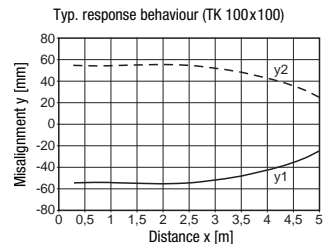
Reflectors			Operating range
1	TK(S)	100x100	0 ... 3.4m
2	MTK(S)	50x50	0 ... 2.7m
3	TK(S)	30x50	0 ... 1.5m
4	TK(S)	20x40	0 ... 1.4m
5	Tape 2	100x100	0 ... 0.8m

1	0	3.4	5
2	0	2.7	4.5
3	0	1.5	2.5
4	0	1.4	2.4
5	0	0.8	1.2

□ Operating range [m]  
 ▒ Typ. operating range limit [m]

TK ... = adhesive  
 TKS ... = screw type  
 Tape 2 = adhesive

**Diagrams**



**Order guide**

Designation	Part No.
PRK 95/4 L.2	500 27993

**Remarks**

- **Approved purpose:**  
 The retro-reflective photo-electric sensors are optical electronic sensors for optical, contactless detection of objects.



IPRK 95

Retro-reflective photoelectric sensors with polarisation filter



0 ... 6.0m  
0 ... 0.3m

10 - 30 V  
DC

- Polarised retro-reflective photoelectric sensor using visible red light
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- Polarisation filter blocks unwanted reflections
- Complementary switching outputs for light/dark switching or as a control function
- IPRK 95/44 L.3 uses a focussed light beam for maximum switching and positioning accuracy
- IPRK 95/44 L.21 with potentiometer for detection of:  
shrink-wrapped packing drums

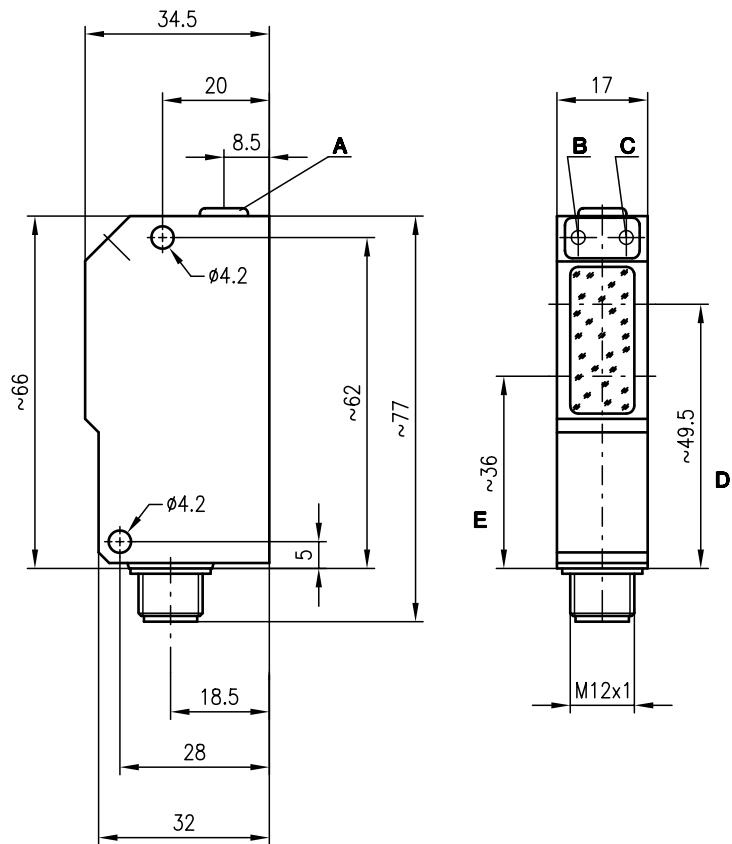


Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)
- Reflectors
- Reflective tapes

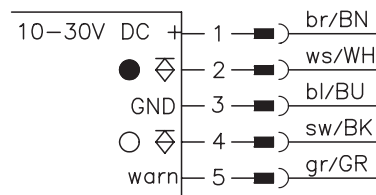
Dimensioned drawing



- A Sensitivity adjustment (for IPRK 95/44 L.21)
- B Switching indicator yellow
- C Operation indicator green
- D Optical axis receiver
- E Optical axis transmitter

Electrical connection

IPRK 95/44 L.21  
IPRK 95/44 L.2  
IPRK 95/44 L.3



We reserve the right to make changes • 95\_b04e.fm

## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>  
 Operating range <sup>2)</sup>  
 Light beam characteristic  
 Light source  
 Wavelength

### IPRK 95/... L.2 (L.21)

0 ... 6m (TK(S) 100x100)  
 see tables  
 divergent  
 LED (modulated light)  
 660nm (visible red light, polarised)

### IPRK 95/44 L.3

0 ... 0.3m (tape 2)  
 see tables  
 focussed at 100mm

### Timing

Switching frequency  
 Response time  
 Delay before start-up

1000Hz  
 0.5ms  
 ≤ 100ms

### Electrical data

Operating voltage  $U_B$   
 Residual ripple  
 Bias current  
 Switching output  
 Function characteristics  
 Signal voltage high/low  
 Output current  
 Sensitivity

10 ... 30VDC (incl. residual ripple)  
 ≤ 15% of  $U_B$   
 ≤ 35mA  
 2 PNP transistor outputs, complementary  
 light/dark switching  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA  
 adjustable via multiturn potentiometer

### Indicators

LED green  
 LED yellow  
 LED yellow flashing

ready  
 light path free  
 light path free, no performance reserve

### Mechanical data

Housing  
 Optics cover  
 Weight  
 Connection type

diecast zinc  
 glass  
 90g  
 M12 connector, stainless steel, 5-pin

### Environmental data

Ambient temp. (operation/storage)<sup>3)</sup>  
 Protective circuit <sup>4)</sup>  
 VDE safety class <sup>5)</sup>  
 Protection class  
 LED class  
 Standards applied

-25°C (-30°C) ... +55°C/-40°C ... +55°C  
 2,3  
 II, all-insulated  
 IP 67, IP 69K <sup>6)</sup>  
 1 (acc. to EN 60825-1)  
 IEC 60947-5-2

### Options

**Warning output autoControl warn**  
 Signal voltage high/low  
 Output current

PNP transistor, counting principle  
 $\geq (U_B - 2V) / \leq 2V$   
 max. 100mA

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250 VAC
- 6) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

## Order guide

	Designation	Part No.	UL
With PNP switching output 0 ... 6.0m	IPRK 95/44 L.2	500 22680	●
With PNP switching output 0 ... 0.3m	IPRK 95/44 L.3	500 22681	●
With PNP switching output 0 ... 6.0m adjustable sensitivity	IPRK 95/44 L.21	501 02613	

## Tables

IPRK 95/... L.2

Reflectors	Operating range
1 TK(S) 100x100	0 ... 4.2m
2 MTK(S) 50x50	0 ... 3.2m
3 TK(S) 30x50	0 ... 1.8m
4 TK(S) 20x40	0 ... 1.7m
5 Tape 2 100x100	0 ... 1.2m

1	0	4.2	6
2	0	3.2	5.4
3	0	1.8	3.0
4	0	1.7	2.9
5	0	1.2	1.7

Operating range [m]  
 Typ. operating range limit [m]

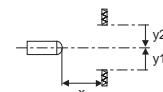
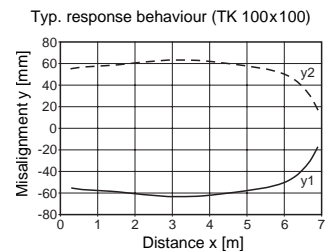
IPRK 95/44 L.3

Reflectors	Operating range
Tape 2 10x10	0 ... 0.3m

TK ... = adhesive  
 TKS ... = screw type  
 Tape 2 = adhesive

## Diagrams

IPRK 95/... L.2



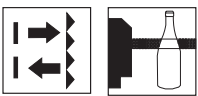
## Remarks

- The retro-reflective photoelectric sensor with 3m operating range is also available with an integrated AS-i chip for direct connection to the AS-i system.



IPRK 95

Retro-reflective photoelectric sensors with polarisation filter



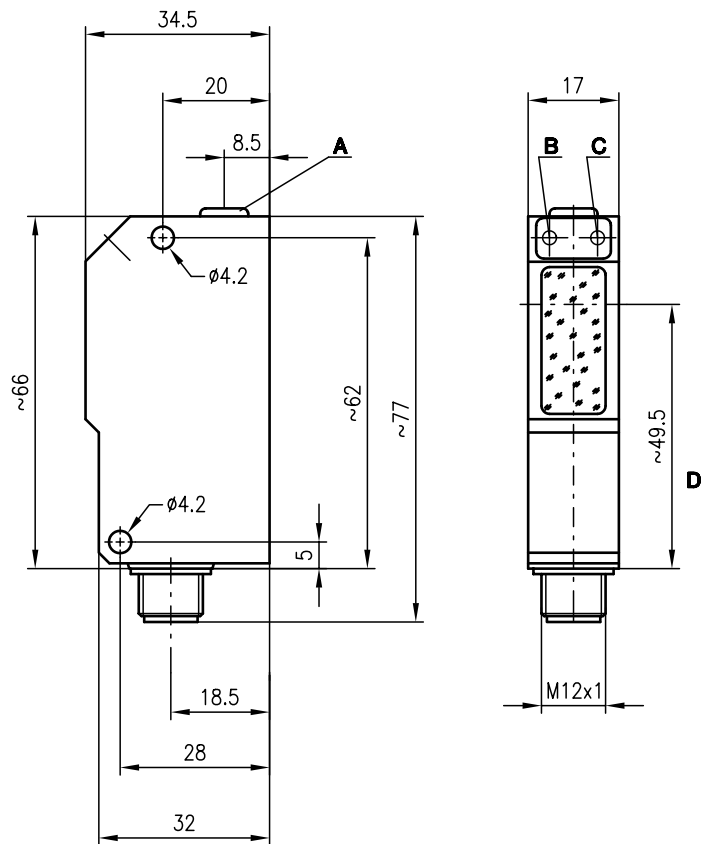
0 ... 3m  
0 ... 6m



- Polarised retro-reflective photoelectric sensors with integrated AS-i slave
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- The retro-reflective photoelectric sensor PRK 95/A L.4 is used for the detection of transparent media (e.g. clear glass, PE, foil) within the operating range of 1.5m
- Adjustable sensitivity with high resolution allows detection of transparent objects

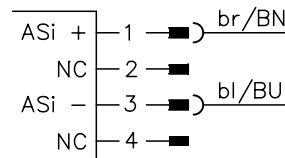


Dimensioned drawing



- A Sensitivity adjustment
- B Switching indicator yellow
- C Operation indicator green
- D Optical axis

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)
- Reflectors
- Reflective tapes

AS-i Accessories:

(available separately)

- Bus terminals
- AS-i ribbon cable
- Address programming device
- Coupling modules
- Intermediate cables etc.

We reserve the right to make changes • 95\_b06e.fm



### Specifications

<b>Optical data</b>	<b>IPRK 95/A L.2</b>	<b>PRK 95/A L.4</b>
Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>	0 ... 6m	0 ... 3m
Operating range <sup>2)</sup>	see tables	see tables
Light beam characteristic	divergent	
Light source	LED (modulated light)	
Wavelength	660nm (visible red light, polarised)	
<b>Timing</b>		
Sensor switching frequency	1000Hz	
Sensor response time	0.5ms	
Delay before start-up	≤ 100ms	
<b>Electrical data</b>		
Operating voltage U <sub>B</sub>	26.5 V ... 31.6 V (according to AS-i specification)	
Bias current	≤ 35mA	
Sensitivity		adjustable with 10-turn potentiometer
<b>Indicators <sup>3)</sup></b>		
LED green	ready	
LED yellow, slowly flashing	operating point 1 <b>clear glass</b> transition from quickly flashing to slowly flashing / light path free	
LED yellow, quickly flashing	operating point 2 <b>coloured glass</b> transition from continuous light to quickly flashing / light path free	
LED yellow, continuous light	operating point 3 <b>non transparent media</b> continuous light/light path free	
<b>Mechanical data</b>		
Housing	diecast zinc	
Optics cover	glass	
Weight	90g	
Connection type	M12 connector, stainless steel	
<b>Environmental data</b>		
Ambient temp. (operation/storage) <sup>4)</sup>	-25°C (-30°C) ... +55°C/-40°C ... +55°C	
Protective circuit <sup>5)</sup>	1, 4	
VDE safety class <sup>6)</sup>	II, all-insulated	
Protection class	IP 67, IP 69K <sup>7)</sup>	
LED class	1 (acc. to EN 60825-1)	
Standards applied	IEC 60947-5-2	
<b>AS-i data</b>		
I/O code	1	
ID code	1	
Address	programmed by the user in the range of 1 to 31 (default=0)	
Cycle time acc. to AS-i specification	5ms	
AS-i standard according to profile	S-1.1	

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) for IPRK 95/A L.2: LED yellow - light path free/LED yellow flashing - light path free, no performance reserve
- 4) -30°C with operating voltage continuously applied
- 5) 1=transient protection, 4=interference blanking
- 6) Rating voltage 250 VAC
- 7) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

Assignment: data bits			Assignment: parameter bits		
	Programming (host level)			Programming (host level)	
D <sub>0</sub>	Switching output ∅ no reflection 1 reflection	System input	*P <sub>0</sub>	NC ∅ 1	System parameter
D <sub>1</sub>	Warning output autoControl <sup>1)</sup> ∅ active 1 not active	System input	*P <sub>1</sub>	light/dark switching ∅ dark switching 1 light switching	System parameter
D <sub>2</sub>	Ready output ∅ sensor not ready 1 sensor ready	System input	*P <sub>2</sub>	NC ∅ 1	System parameter
*D <sub>3</sub>	Activation input ∅ transmitter on 1 transmitter off	System output	*P <sub>3</sub>	NC ∅ 1	System parameter

\* default = 1  
1) applies only for IPRK 95/A L.2

### Order guide

<b>Designation</b>	<b>Part No.</b>
IPRK 95/A L.2	500 27094
PRK 95/A L.4	500 27095

### Tables

IPRK 95/A L.2

Reflectors	Operating range
1 TK(S) 100x100	0 ... 4.2m
2 MTK(S) 50x50	0 ... 3.2m
3 TK(S) 30x50	0 ... 1.8m
4 TK(S) 20x40	0 ... 1.7m
5 Tape 2 100x100	0 ... 1.2m

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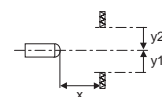
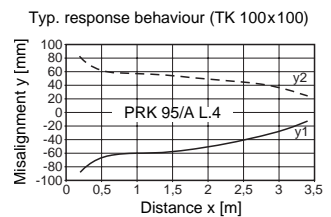
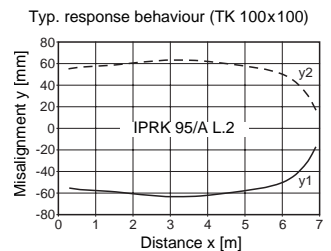
PRK 95/A L.4

Reflectors	Operating range
1 TK(S) 100x100	0 ... 1.8m
2 MTK(S) 50x50	0 ... 1.8m
3 TK(S) 30x50	0 ... 1.1m
4 TK(S) 20x40	0 ... 1.0m
5 Tape 2 100x100	0 ... 0.4m

1	0	1.8	3
2	0	1.8	3
3	0	1.1	1.8
4	0	1.0	1.7
5	0	0.4	0.7

□ Operating range [m]  
▒ Typ. operating range limit [m]

### Diagrams



### Remarks

Objects	Adjustment (indicator LED yellow)
Clear glass, PE, foil	Operating pt. 1 
Coloured glass	Operating pt. 2 
Opaque objects	Operating pt. 3 