

# W8 series miniature photoelectric switches: Small, fast and secure at close range



enables a fast response time where applications demand it. The autocollimation technology incorporated in the photoelectric switch guarantees that the sensor also reliably detects objects at close range, even when using reflective tape. It also facilitates the use of particularly small apertures.

All models feature a sensitivity adjustment control and selectable light-/dark-switching. Versatility is further enhanced by the inclusion of versions with 2M flying leads or M8 connectors with 3 or 4 pin options. Mounting brackets and reflectors for the photoelectric switches are included in the supply.

**T**he W8 series of miniature photoelectric switches offers features which include autocollimation, background suppression, laser diode and a reflex version for the reliable detection of transparent objects and materials. The standard housing design with integrated M3 threaded mounting holes, enables quick and simple installation possibilities for a wide range of industrial applications.

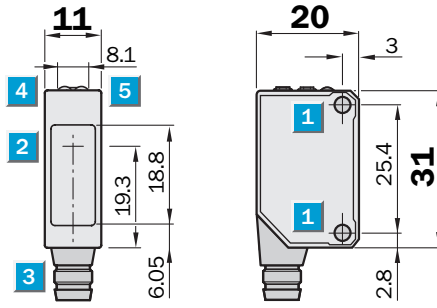
Whether in storage technology and materials handling, in packaging machinery or vending machines, in the printing or paper handling sector, performance is a critical factor. The range of the photoelectric reflex switch is 3 m. The sensor, which features background suppression, reliably operates up to 300 mm range. A switching frequency of up to 2 kHz

Scanning distance  
30 ... 300 mm

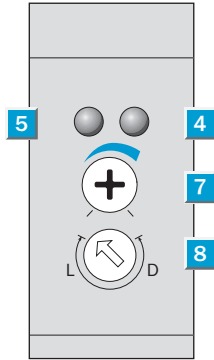
Photoelectric proximity switch

- Background suppression
- For long-range applications
- Light-/dark-switching selectable via rotary switch
- Adjustable sensitivity
- Red light as alignment aid
- Fast installation through integrated M3 mounting thread

Dimensional drawing



Adjustments possible

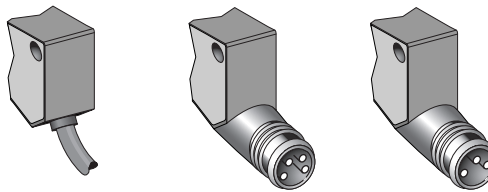


- 1 M3 mounting thread
- 2 Centre optical axis
- 3 Connection
- 4 LED display orange: switching output active
- 5 LED display green: operational status indicator
- 6 Sensitivity control
- 7 Light/dark rotary switch:  
L = light-switching, D = dark-switching



Connection type

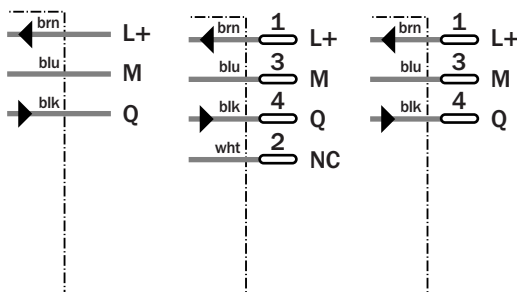
WTB8-N1131	WTB8-N2231	WTB8-N2131
WTB8-P1131	WTB8-P2231	WTB8-P2131



3 x 0.18 mm<sup>2</sup>

M8, 4-pin

M8, 3-pin



Accessories

- Connector, M8, 3-pin
- Connector, M8, 4-pin
- Mounting systems

Technical specifications		WTB8-	N1131	N2131	N2231	P1131	P2131	P2231				
Scanning distance typ. max.	30 ... 300 mm											
Adjustment of operating distance	Potentiometer											
Light source, light type	LED, red light, 650 nm <sup>1)</sup>											
Light spot diameter	Approx. 20 mm at 300 mm distance											
Supply voltage V <sub>s</sub>	DC 10 ... 30 V <sup>2)</sup>											
Ripple	± 10 %											
Power consumption	≤ 30 mA <sup>3)</sup>											
Switching outputs	NPN: open collector: Q											
	PNP: open collector: Q											
Signal voltage PNP HIGH / LOW	V <sub>s</sub> - 1.8 V / approx. 0 V											
Signal voltage NPN HIGH / LOW	Approx. V <sub>s</sub> / < 1.8 V											
Switching mode	Light-/dark-switching via rotary switch											
Output current I <sub>a</sub> max	100 mA											
Response time	≤ 0.5 ms <sup>4)</sup>											
Switching frequency	1,000 Hz <sup>5)</sup>											
Connection type	Cable, PVC, 2 m <sup>6)</sup>											
	Connector, M8, 3-pin											
	Connector, M8, 4-pin											
VDE protection class	◆											
Circuit protection	V <sub>s</sub> connections reverse-polarity protected / In-/outputs short-circuit protected / Outputs overcurrent and short-circuit protected											
Enclosure rating	IP 67											
Ambient temperature operation	-25 °C ... +55 °C											
Ambient temperature storage	-40 °C ... +70 °C											
Weight	Ca 50 g											
	Ca 10 g											
Housing material	ABS, PMMA											
Included with delivery	Mounting bracket BEF-W100-A											

<sup>1)</sup> Average service life 100,000 h at T<sub>a</sub> = +25 °C

<sup>2)</sup> Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A

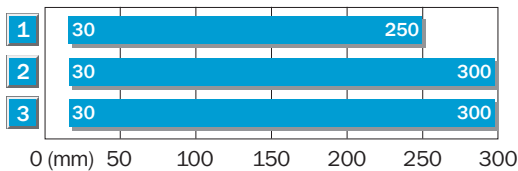
<sup>3)</sup> Without load

<sup>4)</sup> Signal transit time with resistive load

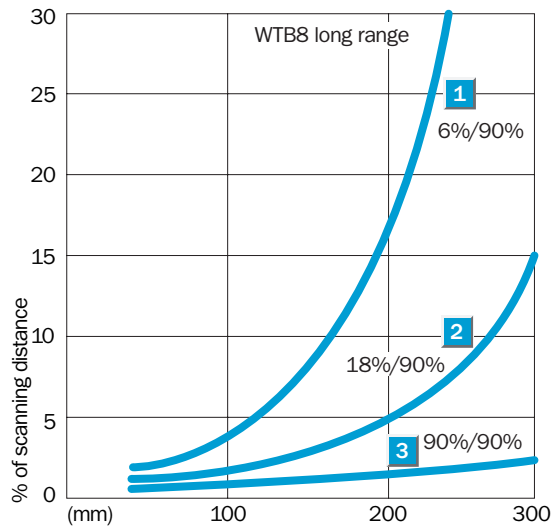
<sup>5)</sup> With light/dark ratio 1:1

<sup>6)</sup> Do not bend below 0 °C

**Scanning distance**



- 1 Scanning distance on black, 6 % remission
- 2 Scanning distance on grey, 18 % remission
- 3 Scanning distance on white, 90 % remission



**Ordering information**

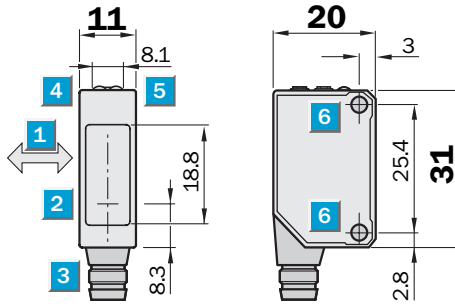
Type	Part Number
WTB8-N1131	6 033 204
WTB8-N2131	6 033 206
WTB8-N2231	6 033 208
WTB8-P1131	6 033 205
WTB8-P2131	6 033 207
WTB8-P2231	6 033 209

**Scanning distance**  
5 ... 100 mm

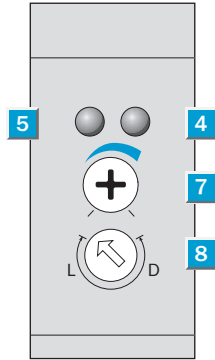
Photoelectric proximity switch

- Background suppression
- For short-range applications
- Light-/dark-switching selectable via rotary switch
- Adjustable sensitivity
- Red light as alignment aid
- Fast installation through integrated M3 mounting thread

Dimensional drawing



Adjustments possible

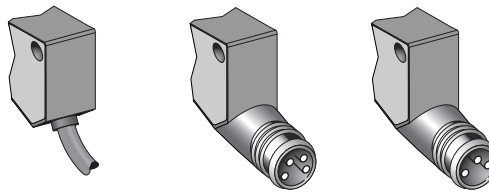


- 1 M3 mounting thread
- 2 Centre optical axis
- 3 Connection
- 4 LED display orange: switching output active
- 5 LED display green: operational status indicator
- 6 Sensitivity control
- 7 Light/dark rotary switch:  
L = light-switching, D = dark-switching

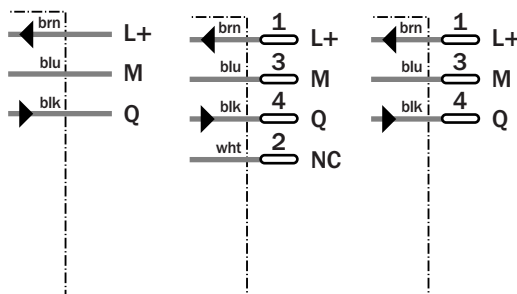


Connection type

WTB8-N1111	WTB8-N2211	WTB8-N2111
WTB8-P1111	WTB8-P2211	WTB8-P2111



3 x 0.18 mm <sup>2</sup>	M8, 4-pin	M8, 3-pin
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**Accessories**

Connector, M8, 3-pin
Connector, M8, 4-pin
Mounting systems

Technical specifications		WTB8-	N1111	N2111	N2211	P1111	P2111	P2211				
Scanning distance <b>typ. max.</b>	5 ... 100 mm											
Adjustment of operating distance	Potentiometer											
<b>Light source, light type</b>	LED, red light, 650 nm <sup>1)</sup>											
Light spot diameter	Approx. 6 mm at 100 mm distance											
<b>Supply voltage V<sub>s</sub></b>	DC 10 ... 30 V <sup>2)</sup>											
Ripple	± 10 %											
Power consumption	≤ 30 mA <sup>3)</sup>											
<b>Switching outputs</b>	NPN: open collector: Q											
	PNP: open collector: Q											
Signal voltage PNP HIGH / LOW	V <sub>s</sub> - 1.8 V / approx. 0 V											
Signal voltage NPN HIGH / LOW	Approx. V <sub>s</sub> / < 1.8 V											
Switching mode	Light-/dark-switching via rotary switch											
Output current I <sub>a</sub> max	100 mA											
Response time	≤ 0.5 ms <sup>4)</sup>											
Switching frequency	1,000 Hz <sup>5)</sup>											
<b>Connection type</b>	Cable, PVC, 2 m <sup>6)</sup>											
	Connector, M8, 3-pin											
	Connector, M8, 4-pin											
<b>VDE protection class</b>	◆											
<b>Circuit protection</b>	V <sub>s</sub> connections reverse-polarity protected / In-/outputs short-circuit protected / Outputs overcurrent and short-circuit protected											
<b>Enclosure rating</b>	IP 67											
<b>Ambient temperature operation</b>	-25 °C ... +55 °C											
<b>Ambient temperature storage</b>	-40 °C ... +70 °C											
<b>Weight</b>	Ca 50 g											
	Ca 10 g											
<b>Housing material</b>	ABS, PMMA											
<b>Included with delivery</b>	Mounting bracket BEF-W100-A											

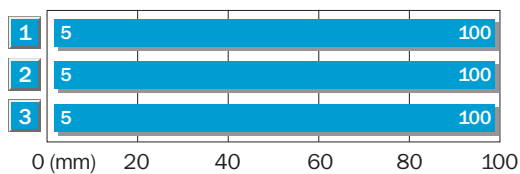
<sup>1)</sup> Average service life 100,000 h at T<sub>a</sub> = +25 °C

<sup>2)</sup> Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A

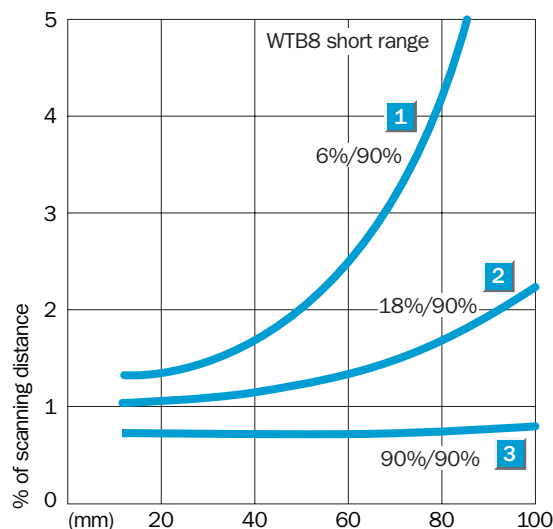
<sup>3)</sup> Without load

<sup>4)</sup> Signal transit time with resistive load  
<sup>5)</sup> With light/dark ratio 1:1  
<sup>6)</sup> Do not bend below 0 °C

### Scanning distance



- 1 Scanning distance on black, 6 % remission
- 2 Scanning distance on grey, 18 % remission
- 3 Scanning distance on white, 90 % remission



### Ordering information

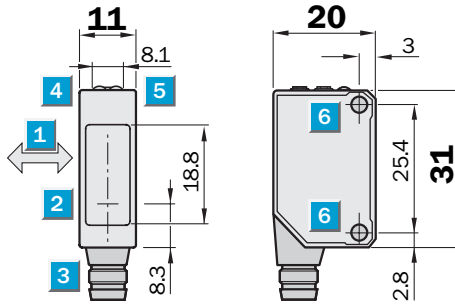
Type	Part Number
WTB8-N1111	6 033 210
WTB8-N2111	6 033 212
WTB8-N2211	6 033 214
WTB8-P1111	6 033 211
WTB8-P2111	6 033 213
WTB8-P2211	6 033 215

Scanning distance  
30 ... 300 mm

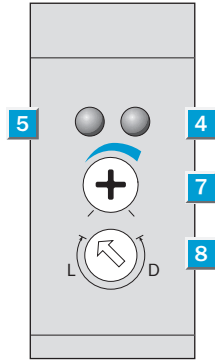
Photoelectric proximity switch

- Background suppression
- Class 1 laser red light
- Light-/dark-switching selectable via rotary switch
- Adjustable sensitivity
- Red light as alignment aid
- Fast installation through integrated M3 mounting thread
- Switching frequency 2 kHz

Dimensional drawing



Adjustments possible

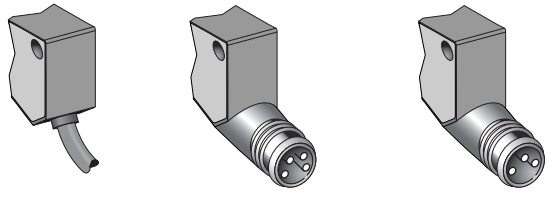


- 1 M3 mounting thread
- 2 Centre optical axis
- 3 Connection
- 4 LED display orange: switching output active
- 5 LED display green: operational status indicator
- 6 Sensitivity control
- 7 Light/dark rotary switch:  
L = light-switching, D = dark-switching

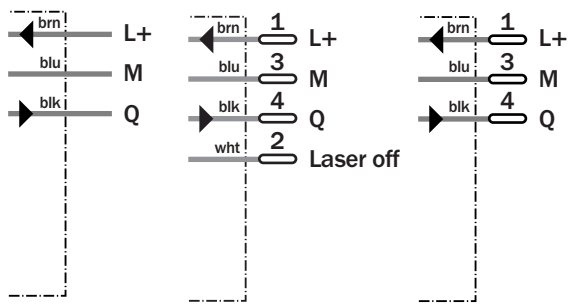


Connection type

WTB8L-N1131	WTB8L-N2231	WTB8L-N2131
WTB8L-P1131	WTB8L-P2231	WTB8L-P2131



3 x 0.18 mm<sup>2</sup>      M8, 4-pin      M8, 3-pin



**Accessories**

Connector, M8, 3-pin
Connector, M8, 4-pin
Mounting systems

Technical specifications		WTB8L-	N1131	N2131	N2231	P1131	P2131	P2231				
Scanning distance typ. max.	30 ... 300 mm											
Adjustment of operating distance	Potentiometer											
Light source, light type	Laser diode, laser, red light, 650 nm <sup>1)</sup>											
Laser protection class	1 (IEC 60 825-1/C.D.R.H)											
Light spot diameter	Approx. 1.5 mm at 300 mm distance											
Supply voltage V <sub>s</sub>	DC 10 ... 30 V <sup>2)</sup>											
Ripple	± 10 %											
Power consumption	≤ 30 mA <sup>3)</sup>											
Switching outputs	NPN: open collector: Q											
	PNP: open collector: Q											
Signal voltage PNP HIGH / LOW	V <sub>s</sub> - 1.8 V / approx. 0 V											
Signal voltage NPN HIGH / LOW	Approx. V <sub>s</sub> / < 1.8 V											
Switching mode	Light-/dark-switching via rotary switch											
Output current I <sub>a</sub> max	100 mA											
Response time	≤ 0.25 ms <sup>4)</sup>											
Switching frequency	2,000 Hz <sup>5)</sup>											
Test input sender off	TE to 0 V											
	TE to V+											
Connection type	Cable, PVC, 2 m <sup>6)</sup>											
	Connector, M8, 3-pin											
	Connector, M8, 4-pin											
VDE protection class	⊠											
Circuit protection	V <sub>s</sub> connections reverse-polarity protected / In-/outputs short-circuit protected / Outputs overcurrent and short-circuit protected											
Enclosure rating	IP 67											
Ambient temperature operation	-10 °C ... +50 °C											
Ambient temperature storage	-40 °C ... +70 °C											
Weight	Ca 50 g											
	Ca 10 g											
Housing material	ABS, PMMA											
Included with delivery	Mounting bracket BEF-W100-A											

<sup>1)</sup> Average service life 100,000 h at T<sub>a</sub> = +25 °C

<sup>2)</sup> Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A

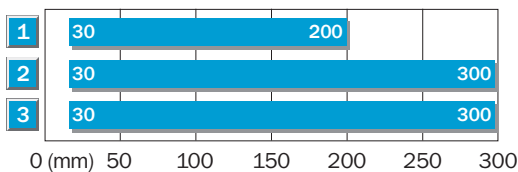
<sup>3)</sup> Without load

<sup>4)</sup> Signal transit time with resistive load

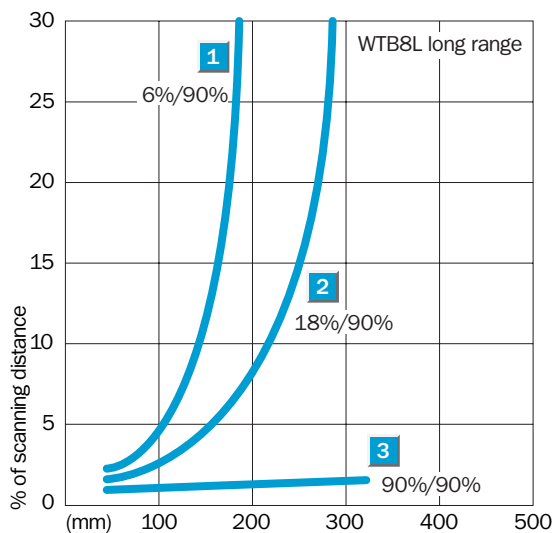
<sup>5)</sup> With light/dark ratio 1:1

<sup>6)</sup> Do not bend below 0 °C

**Scanning distance**



- 1 Scanning distance on black, 6 % remission
- 2 Scanning distance on grey, 18 % remission
- 3 Scanning distance on white, 90 % remission



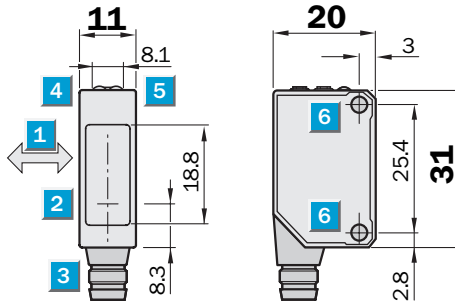
Ordering information	
Type	Part Number
WTB8L-N1131	6 033 216
WTB8L-N2131	6 033 218
WTB8L-N2231	6 033 220
WTB8L-P1131	6 033 217
WTB8L-P2131	6 033 219
WTB8L-P2231	6 033 221

**Scanning distance**  
5 ... 100 mm

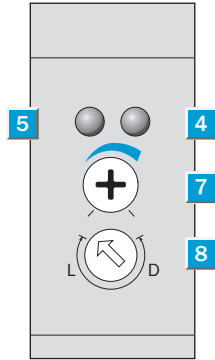
Photoelectric proximity switch

- Background suppression
- Class 1 laser red light
- Light-/dark-switching selectable via rotary switch
- Adjustable sensitivity
- Red light as alignment aid
- Fast installation through integrated M3 mounting thread
- Switching frequency 2 kHz

Dimensional drawing



Adjustments possible

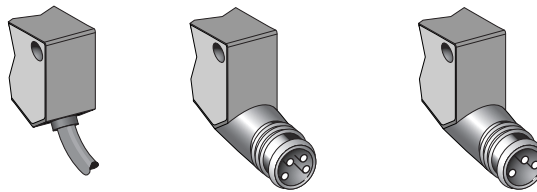


- 1 M3 mounting thread
- 2 Centre optical axis
- 3 Connection
- 4 LED display orange: switching output active
- 5 LED display green: operational status indicator
- 6 Sensitivity control
- 7 Light/dark rotary switch:  
L = light-switching, D = dark-switching

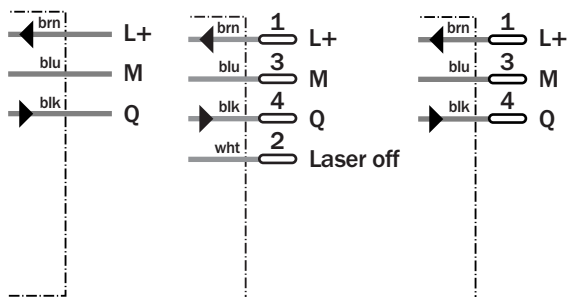


Connection type

WTB8L-N1111	WTB8L-N2211	WTB8L-N2111
WTB8L-P1111	WTB8L-P2211	WTB8L-P2111



3 x 0.18 mm <sup>2</sup>	M8, 4-pin	M8, 3-pin
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**Accessories**

Connector, M8, 3-pin
Connector, M8, 4-pin
Mounting systems



Technical specifications		WTB8L-	N1111	N2111	N2211	P1111	P2111	P2211				
<b>Scanning distance typ. max.</b>	5 ... 100 mm											
Adjustment of operating distance	Potentiometer											
<b>Light source, light type</b>	Laser diode, laser, red light, 650 nm <sup>1)</sup>											
<b>Laser protection class</b>	1 (IEC 60 825-1/C.D.R.H)											
Light spot diameter	Approx. 1 mm at 100 mm distance											
<b>Supply voltage V<sub>s</sub></b>	DC 10 ... 30 V <sup>2)</sup>											
Ripple	± 10 %											
Power consumption	≤ 30 mA <sup>3)</sup>											
<b>Switching outputs</b>	NPN: open collector: Q											
	PNP: open collector: Q											
Signal voltage PNP HIGH / LOW	V <sub>s</sub> - 1.8 V / approx. 0 V											
Signal voltage NPN HIGH / LOW	Approx. V <sub>s</sub> / < 1.8 V											
Switching mode	Light-/dark-switching via rotary switch											
Output current I <sub>a</sub> max	100 mA											
Response time	≤ 0.25 ms <sup>4)</sup>											
Switching frequency	2,000 Hz <sup>5)</sup>											
<b>Test input sender off</b>	TE to 0 V											
	TE to V+											
<b>Connection type</b>	Cable, PVC, 2 m <sup>6)</sup>											
	Connector, M8, 3-pin											
	Connector, M8, 4-pin											
<b>VDE protection class</b>	⊕											
<b>Circuit protection</b>	V <sub>s</sub> connections reverse-polarity protected / In-/outputs short-circuit protected / Outputs overcurrent and short-circuit protected											
<b>Enclosure rating</b>	IP 67											
<b>Ambient temperature operation</b>	-10 °C ... +50 °C											
<b>Ambient temperature storage</b>	-40 °C ... +70 °C											
<b>Weight</b>	Ca 50 g											
	Ca 10 g											
<b>Housing material</b>	ABS, PMMA											
<b>Included with delivery</b>	Mounting bracket BEF-W100-A											

<sup>1)</sup> Average service life 100,000 h at T<sub>a</sub> = +25 °C

<sup>2)</sup> Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A

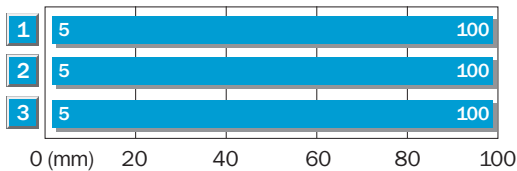
<sup>3)</sup> Without load

<sup>4)</sup> Signal transit time with resistive load

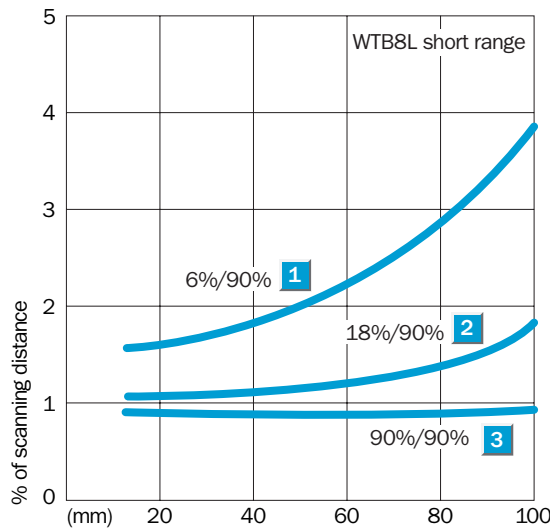
<sup>5)</sup> With light/dark ratio 1:1

<sup>6)</sup> Do not bend below 0 °C

**Scanning distance**



- 1 Scanning distance on black, 6 % remission
- 2 Scanning distance on grey, 18 % remission
- 3 Scanning distance on white, 90 % remission



**Ordering information**

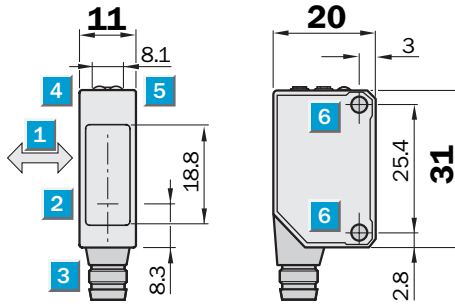
Type	Part Number
WTB8L-N1111	6 033 222
WTB8L-N2111	6 033 224
WTB8L-N2211	6 033 226
WTB8L-P1111	6 033 223
WTB8L-P2111	6 033 225
WTB8L-P2211	6 033 227

**Scanning range**  
0 ... 4 m

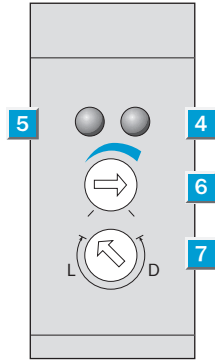
Photoelectric reflex switch

- Secure detection at close range due to autocollimation
- Polarization filter and consequently reliable detection of objects with shiny surfaces
- Red light as alignment aid
- Fast installation through integrated M3 mounting thread
- Switching frequency 2 kHz

Dimensional drawing



Adjustments possible

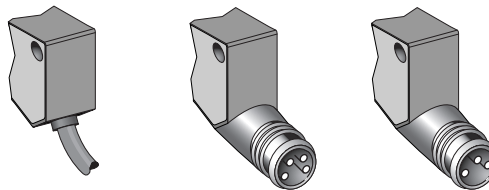


- 1 M3 mounting thread
- 2 Centre optical axis
- 3 Connection
- 4 LED display orange: switching output active
- 5 LED display green: operational status indicator
- 6 Sensitivity control
- 7 Light/dark rotary switch:  
L = light-switching, D = dark-switching



Connection type

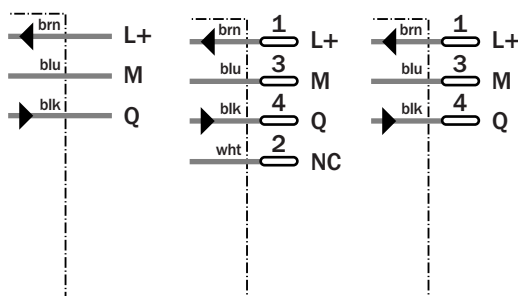
WL8-N1131	WL8-N2231	WL8-N2131
WL8-P1131	WL8-P2231	WL8-P2131



3 x 0.18 mm<sup>2</sup>

M8, 4-pin

M8, 3-pin



**Accessories**

Connector, M8, 3-pin
Connector, M8, 4-pin
Mounting systems
Reflectors

Technical specifications		WL8-	N1131	N2131	N2231	P1131	P2131	P2231				
Scanning range typ. max.	0 ... 4 m											
Scanning range, recommended	0 ... 3 m											
Relating to	Reflector PL80A											
Sensitivity adjustment	Potentiometer											
Light source, light type	LED, red light, 650 nm <sup>1)</sup>											
Light spot diameter	Approx. 30 mm at 1 m distance											
Polarisation filter	✓											
Supply voltage V <sub>s</sub>	DC 10 ... 30 V <sup>2)</sup>											
Ripple	± 10 % <sup>3)</sup>											
Power consumption	≤ 30 mA <sup>4)</sup>											
Switching outputs	NPN: open collector: Q PNP: open collector: Q											
Signal voltage PNP HIGH / LOW	V <sub>s</sub> - 1.8 V / approx. 0 V											
Signal voltage NPN HIGH / LOW	Approx. V <sub>s</sub> / < 1.8 V											
Switching mode	Light-/dark-switching via rotary switch											
Output current I <sub>a</sub> max	100 mA											
Switching frequency	2,000 Hz <sup>5)</sup>											
Connection type	Cable, PVC, 2 m <sup>6)</sup>											
	Connector, M8, 3-pin											
	Connector, M8, 4-pin											
VDE protection class	◆											
Circuit protection	V <sub>s</sub> connections reverse-polarity protected / In-/outputs short-circuit protected / Outputs overcurrent and short-circuit protected											
Enclosure rating	IP 67											
Ambient temperature operation	-25 °C ... +55 °C											
Ambient temperature storage	-40 °C ... +70 °C											
Weight	Ca 50 g Ca 10 g											
Housing material	ABS, PMMA											
Included with delivery	Mounting bracket BEF-W100-A and reflector P250											

<sup>1)</sup> Average service life 100,000 h at T<sub>a</sub> = +25 °C

<sup>2)</sup> Limit values, reverse-polarity protected

operation in short-circuit protected network max. 8 A

<sup>3)</sup> May not exceed or fall short of

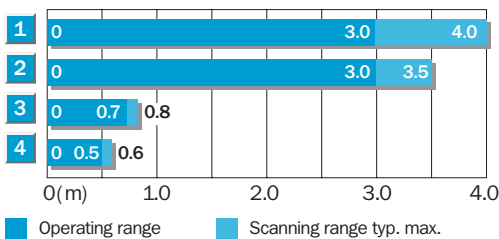
V<sub>s</sub> tolerances

<sup>4)</sup> Without load

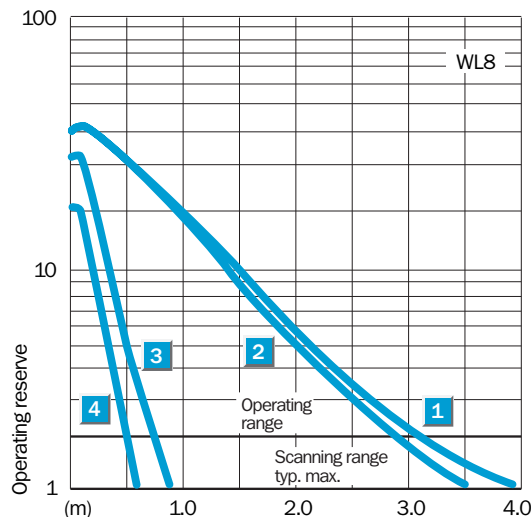
<sup>5)</sup> With light/dark ratio 1:1

<sup>6)</sup> Do not bend below 0 °C

**Scanning range and operating reserve**



Reflector type	Operating range
1 PL80A	0 ... 3.0 m
2 P250	0 ... 3.0 m
3 P45	0 ... 0.7 m
4 Diamond Grade	0 ... 0.5 m



**Ordering information**

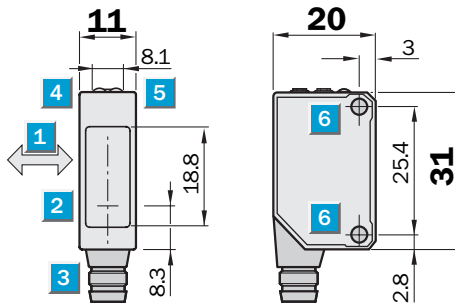
Type	Part Number
WL8-N1131	6 033 176
WL8-N2131	6 033 179
WL8-N2231	6 033 181
WL8-P1131	6 033 177
WL8-P2131	6 033 180
WL8-P2231	6 033 182

**Scanning range**  
0 ... 3 m

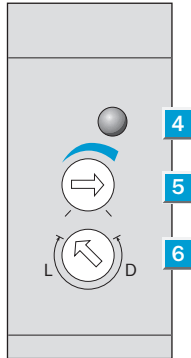
Photoelectric reflex switch

- Secure detection at close range due to autocollimation
- Ideal for detecting glass or transparent films
- Red light as alignment aid
- Fast installation through integrated M3 mounting thread

Dimensional drawing



Adjustments possible

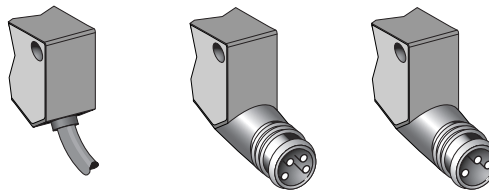


- 1 M3 mounting thread
- 2 Centre optical axis
- 3 Connection
- 4 LED display orange: switching output active
- 5 Sensitivity control
- 6 Light/dark rotary switch:  
L = light-switching,  
D = dark-switching



Connection type

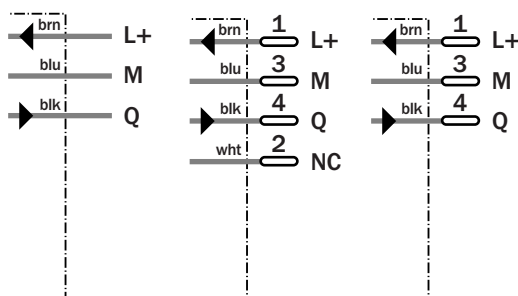
WL8G-N1131	WL8G-N2231	WL8G-N2131
WL8G-P1131	WL8G-P2231	WL8G-P2131



3 x 0.18 mm<sup>2</sup>

M8, 4-pin

M8, 3-pin



Accessories

- Connector, M8, 3-pin
- Connector, M8, 4-pin
- Mounting systems
- Reflectors

Technical specifications		WL8G-	N1131	N2131	N2231	P1131	P2131	P2231				
Detection of transparent objects	✓											
Attenuation along light beam	≤ 20 %											
Scanning range typ. max.	0 ... 3 m											
Scanning range, recommended	0 ... 1.7 m											
Relating to	Reflector PL80A											
Sensitivity adjustment	Potentiometer											
Light source, light type	LED, red light, 650 nm <sup>1)</sup>											
Light spot diameter	Approx. 70 mm at 2 m distance											
Supply voltage V <sub>s</sub>	DC 10 ... 30 V <sup>2)</sup>											
Ripple	± 10 % <sup>3)</sup>											
Power consumption	≤ 30 mA <sup>4)</sup>											
Switching outputs	NPN: open collector: Q											
	PNP: open collector: Q											
Signal voltage PNP HIGH / LOW	V <sub>s</sub> - 1.8 V / approx. 0 V											
Signal voltage NPN HIGH / LOW	Approx. V <sub>s</sub> / < 1.8 V											
Switching mode	Light-/dark-switching via rotary switch											
Output current I <sub>a</sub> max	100 mA											
Switching frequency	1,000 Hz <sup>5)</sup>											
Connection type	Cable, PVC, 2 m <sup>6)</sup>											
	Connector, M8, 3-pin											
	Connector, M8, 4-pin											
VDE protection class	⊠											
Circuit protection	V <sub>s</sub> connections reverse-polarity protected / In-/outputs short-circuit protected / Outputs overcurrent and short-circuit protected											
Enclosure rating	IP 67											
Ambient temperature operation	-25 °C ... +55 °C											
Ambient temperature storage	-40 °C ... +70 °C											
Weight	Ca 50 g											
	Ca 10 g											
Housing material	ABS, PMMA											
Included with delivery	Mounting bracket BEF-W100-A and reflector P250F											

<sup>1)</sup> Average service life 100,000 h at T<sub>a</sub> = +25 °C

<sup>2)</sup> Limit values, reverse-polarity protected

operation in short-circuit protected network max. 8 A

<sup>3)</sup> May not exceed or fall short of

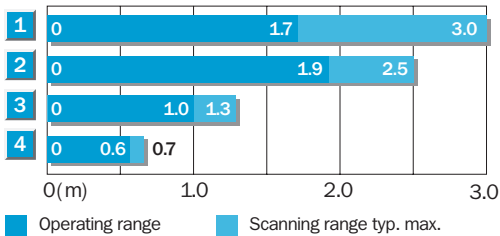
V<sub>s</sub> tolerances

<sup>4)</sup> Without load

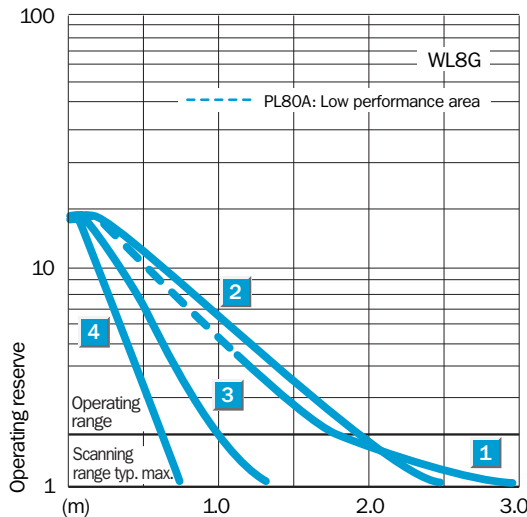
<sup>5)</sup> With light/dark ratio 1:1

<sup>6)</sup> Do not bend below 0 °C

**Scanning range and operating reserve**



Reflector type	Operating range
1 PL80A	0 ... 1.7m
2 P250F	0 ... 1.9 m
3 PL20F	0 ... 1.0 m
4 PL10F	0 ... 0.6 m



**Ordering information**

Type	Part Number
WL8G-N1131	6 033 183
WL8G-N2131	6 033 185
WL8G-N2231	6 033 187
WL8G-P1131	6 033 184
WL8G-P2131	6 033 186
WL8G-P2231	6 033 188

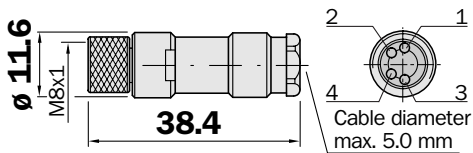
Dimensional drawings and order information

Connectors

SENSICK screw-in system M8, 3- or 4-pin, enclosure rating IP 67

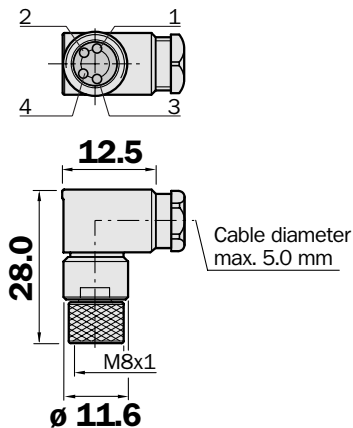
Female connector M8, 3- or 4-pin, straight

Type	Order no.	Contacts
DOS-0803-G	7902077	3
DOS-0804-G	6009974	4



Female connector M8, 3- or 4-pin, right angle

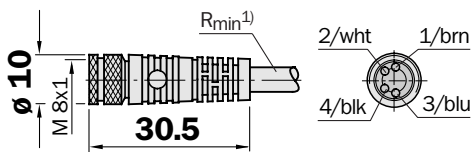
Type	Order no.	Contacts
DOS-0803-W	7902078	3
DOS-0804-W	6009975	4



Female connector M8, 3- or 4-pin, straight

3 x 0.34 mm<sup>2</sup> or 4 x 0.25 mm<sup>2</sup>, sheath PVC

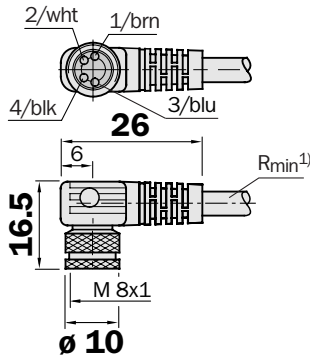
Type	Order no.	Contacts	Cable length
DOL-0803-G02M	6010785	3	2 m
DOL-0803-G05M	6022009	3	5 m
DOL-0803-G10M	6022011	3	10 m
DOL-0804-G02M	6009870	4	2 m
DOL-0804-G05M	6009872	4	5 m
DOL-0804-G10M	6010754	4	10 m



Female connector M8, 3- or 4-pin, right angle

3 x 0.34 mm<sup>2</sup> or 4 x 0.25 mm<sup>2</sup>, sheath PVC

Type	Order no.	Contacts	Cable length
DOL-0803-W02M	6008489	3	2 m
DOL-0803-W05M	6022010	3	5 m
DOL-0803-W10M	6022012	3	10 m
DOL-0804-W02M	6009871	4	2 m
DOL-0804-W05M	6009873	4	5 m
DOL-0804-W10M	6010755	4	10 m



<sup>1)</sup> Minimum bend radius in dynamic use  
 $R_{min} = 20 \times \text{cable diameter}$

Dimensional drawings and order information

Connectors

SENSICK screw-in system M8, 3- or 4-pin, enclosure rating IP 67

Female connector M8, 3- or 4-pin, straight

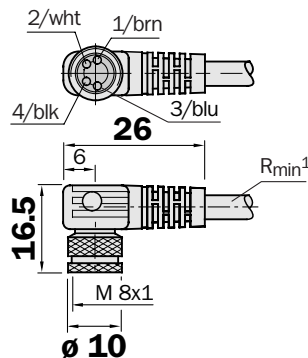
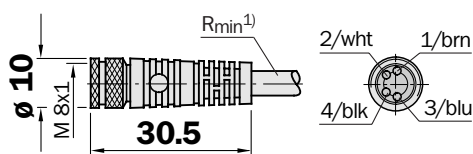
3/4 x 0.34 mm<sup>2</sup>, sheath PUR halogen free

Type	Order no.	Contacts	Cable length
DOL-0803-G02MC	6025888	3	2 m
DOL-0803-G05MC	6025889	3	5 m
DOL-0803-G10MC	6025890	3	10 m
DOL-0804-G02MC	6025894	4	2 m
DOL-0804-G05MC	6025895	4	5 m
DOL-0804-G10MC	6025896	4	10 m

Female connector M8, 3- or 4-pin, right angle

3/4 x 0.34 mm<sup>2</sup>, sheath PUR halogen free

Type	Order no.	Contacts
DOL-0803-W02MC	6025891	3
DOL-0803-W05MC	6025892	3
DOL-0803-W10MC	6025893	3
DOL-0804-W02MC	6025897	4
DOL-0804-W05MC	6025898	4
DOL-0804-W10MC	6025899	4



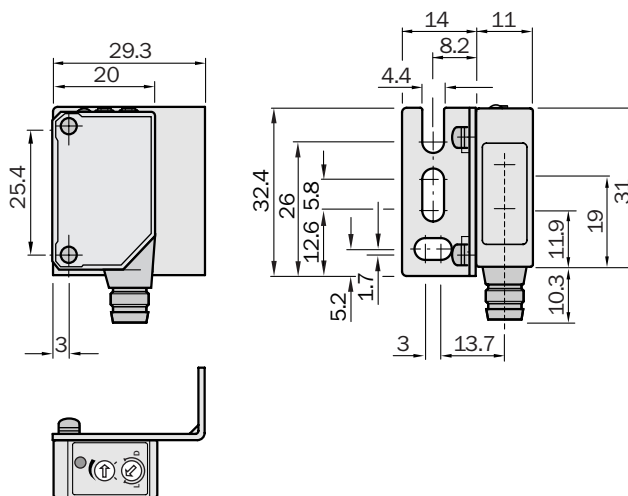
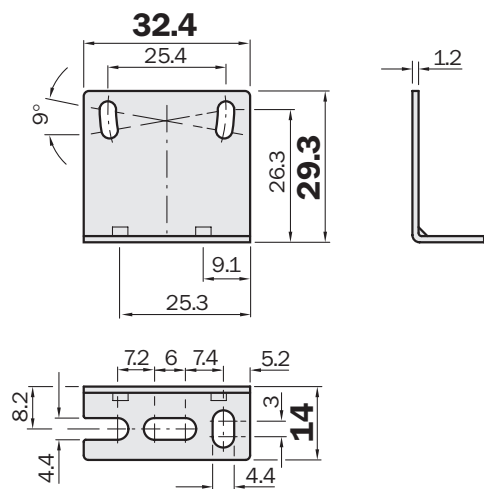
<sup>1)</sup> Minimum bend radius in dynamic use  
 $R_{min} = 20 \times \text{cable diameter}$

Mounting systems

Mounting bracket, horizontal for W8 \*)

Type	Order no.
BEF-W100-A	5311520

Mounting



\*) Included with delivery W8

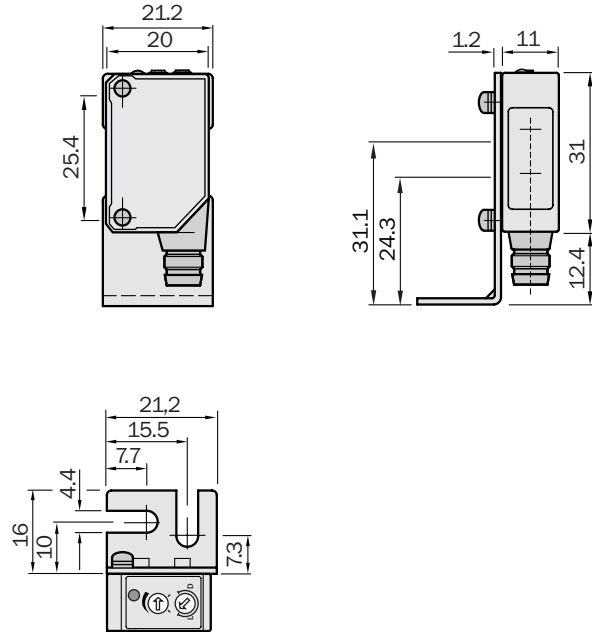
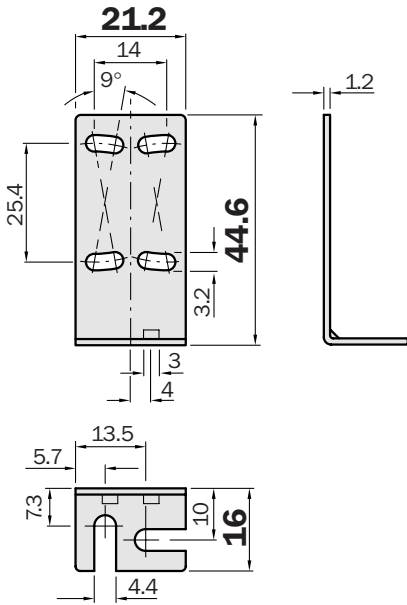
Dimensional drawings and order information

Mounting systems

Mounting bracket, vertical for W8\*\*)

Type	Order no.
BEF-W100-B	5311521

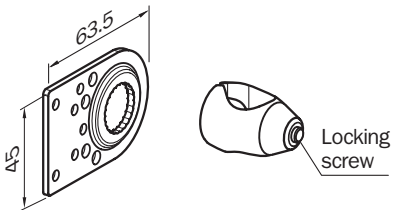
Mounting



\*\*) Optional. Please order separately

Mounting plate for universal bar clamp

Type	Order no.	Mounting plate
BEF-KHS-L01	2023057	L



L



**Dimensional drawings and order information**

**Masks/polarizing filter**

**Slotted masks for WS/WE8 \*)**

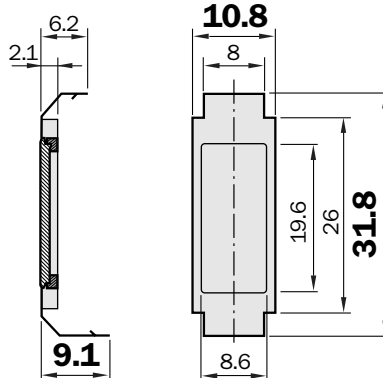
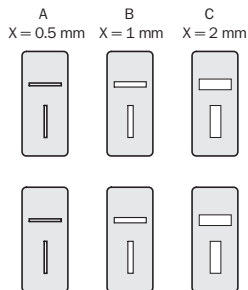
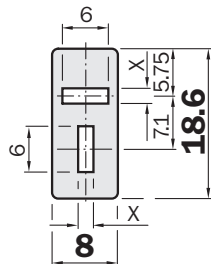
**Slot width X: 0.5 mm/1.0 mm/2.0 mm**

Type	Order no.
BL-100-10	5314182

**Polarizing filter for WS/WE8**

Type	Order no.	Model
BL-100-POLF	5314702	4 pieces, each 2x for X and Y polarizing

\*) Two pieces each



3 pairs with slot widths A, B and C are supplied with equipment.

Mounting by self-adhesive back.

Stick mask on red optics body of WS8 and WE8.

For detecting smaller objects or increasing the switching accuracy.

Changed operating ranges:

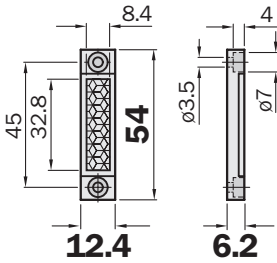
- A) Slot width 0.5 mm: SR = 1.0 m
- B) Slot width 1.0 mm: SR = 2.0 m
- C) Slot width 2.0 mm: SR = 4.0 m

Dimensional drawings and order information

Reflectors, plastic design for temperatures up to 65 °C

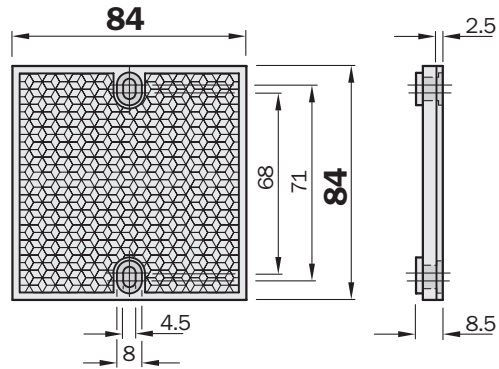
Reflector 32,8 x 8,4 mm<sup>2</sup>, screwable

Type	Order no.
P45	5308002



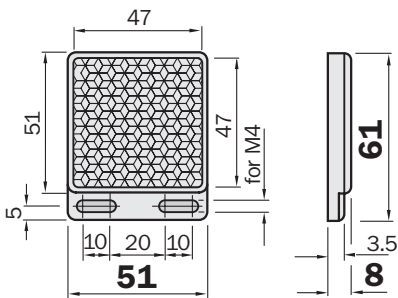
Reflector 80 x 80 mm<sup>2</sup>

Type	Order no.
PL80A	1003865



Reflector 47 x 47 mm

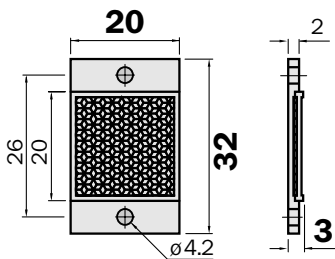
Type	Order no.
P250	5304812



Micro triple reflectors, plastic design, angular, for temperatures up to 65 °C

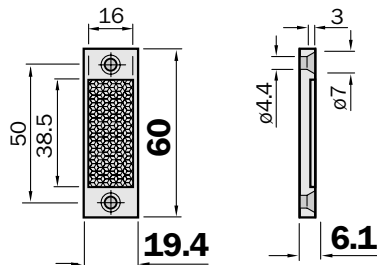
Micro triple reflector 20 x 20 mm<sup>2</sup>, screwable

Type	Order no.
PL10F	5311210



Micro triple reflector 20 x 40 mm<sup>2</sup>, screwable

Type	Order no.
PL20F	5308844

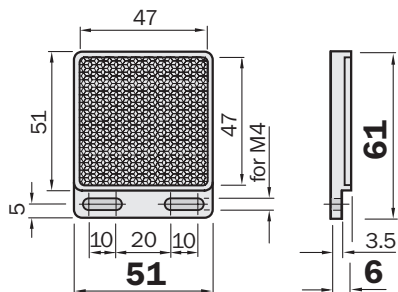


**Dimensional drawings and order information**

**Micro triple reflectors, plastic design, angular, for temperatures up to 65 °C**

**Micro triple reflector 47 x 47 mm<sup>2</sup>**

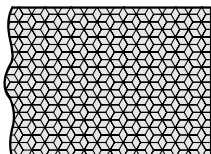
Type	Order no.
P250F	5308843



**Self-adhesive reflective tape for photoelectric switches with polarisation filter**

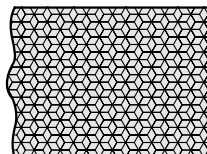
**Reflective tape "Diamond Grade", cut to size**

Type	Order no.
REF-DG	5320565
REF-DG-K	4019634



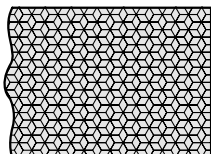
**Reflective tape, self-adhesive, length of roll 22.8 m**

Type	Order no.	Width
REF-PLUS-R25	5319929	25 mm
REF-PLUS-R50	5319981	50 mm



**Reflective tape, self-adhesive, cut to size**

Type	Order no.	Width
REF-PLUS-R25-K	4051184	25 mm
REF-PLUS-R50	4051185	50 mm



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