


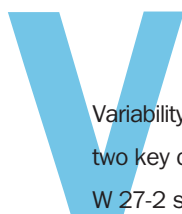
# W 27-2: The photoelectric switch series with expanded possibilities



- 100...1,000 mm respectively, with background suppression,
- 100...800 mm for the photoelectric proximity switch with visible laser light and adjustable scanning range and background suppression,
- 14 metres for the WL 27-2 photoelectric reflex switch, and
- 35 metres for the WS/WE 27-2 through-beam photoelectric switch.

The variety of models and configurations available within this photoelectric series, means that the many different requirements of users can easily be satisfied:




- plug or connecting cable,
- supply voltage with 10...30 V DC/24...240 V UC,
- timer modules for ON- or OFF-delay or for ON- and OFF-delay, separate adjustable,
- with test input,
- pre-failure signalling output,
- front screen heating to prevent condensation under rapidly changing ambient temperatures,
- with laser types 
- AS-i technology
  - Standard sensors connectable with AS-i system components.
  - Intelligent sensors with integrated AS-i chip.




Variability and flexibility are the two key characteristics of the W 27-2 series of photoelectric switches. Thanks to their modular design, it is possible to offer a broad range of very different sensors.

Fully welded plastic housing made of ABS and impressive performance data are features common to all devices:

- the WT 27-2 photoelectric proximity switch with infrared or red light sender with adjustable scanning distances of 100...1,500 mm and

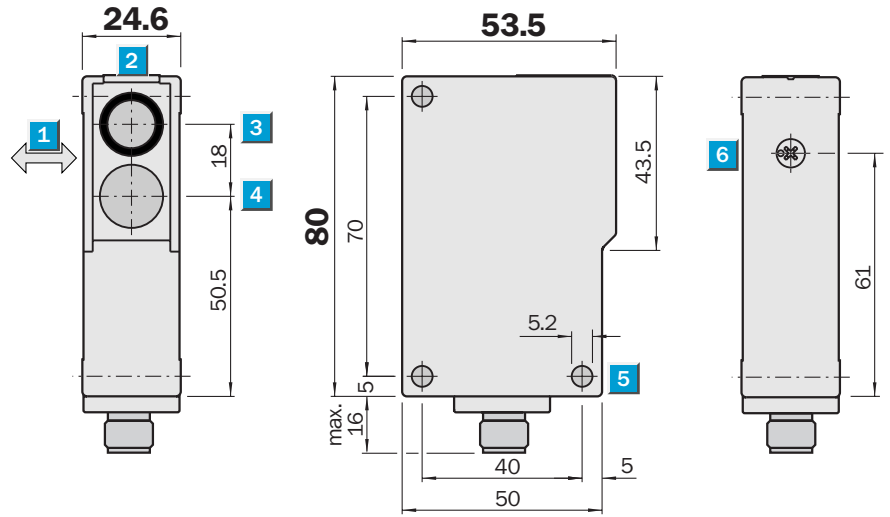
	<b>Photoelectric proximity switches, BGS</b>
	<b>Photoelectric reflex switches</b>
	<b>Through-beam photoelectric switches</b>


**Scanning distance**  
 100...800 mm  
 Photoelectric proximity switches

- Laser LED, red light
- Adjustable background suppression

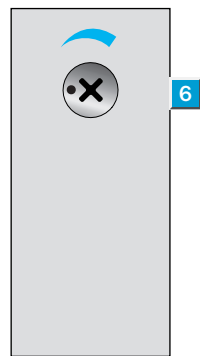


**Dimensional drawing**



**Adjustments possible**

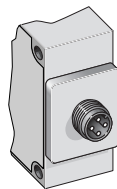
WT 27L-2F 430



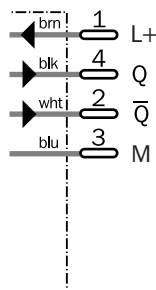
- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis, sender
- 4 Optic axis, receiver
- 5 Mounting hole  $\varnothing$  5.2 mm
- 6 Sensitivity adjustment

**Connection type**

WT 27L-2F 430



4-pin, M 12



<b>Accessories</b>
Connectors
Mounting systems

Technical data		WT 27L-2	F 430										
<b>Scanning distance</b>	100...800 mm, adjustable												
<b>Light source<sup>1)</sup>, light type</b>	LED laser, red light												
Light spot diameter	Approx. 2 mm at 400 mm												
<b>Supply voltage <math>V_S</math></b>	10...30 V DC <sup>2)</sup>												
Ripple <sup>3)</sup>	$\leq 5 V_{PP}$												
Current consumption <sup>4)</sup>	$\leq 35$ mA												
<b>Switching outputs</b>	PNP, Q and $\bar{Q}$												
Output current $I_A$ max.	100 mA												
Response time <sup>5)</sup>	500 $\mu$ s												
Max. switching frequency <sup>6)</sup>	1000/s												
<b>Connection type</b>	Plug												
<b>VDE protection class<sup>7)</sup></b>	<input type="checkbox"/>												
<b>Laser class<sup>8)</sup></b>	2 (IEC 825/VDE 0837)												
<b>Circuit protection<sup>9)</sup></b>	A, B, C												
<b>Enclosure rating</b>	IP 67												
<b>Ambient temperature <math>T_A</math></b>	Operation $-10$ °C...+45 °C Storage $-10$ °C...+75 °C												
<b>Weight</b>	Approx. 100 g												
<b>Housing material</b>	ABS												

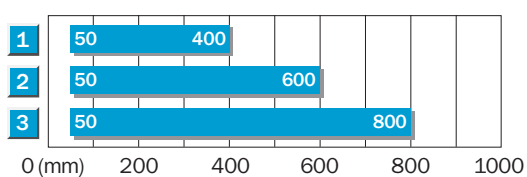
- 1) Average service life 50,000 h at  $T_A = +25$  °C  
 2) Limit values  
 3) May not exceed or fall short of  $V_S$  tolerances

- 4) Without load  
 5) Signal flight time with ohmic load  
 6) With light/dark ratio 1:1  
 7) Reference voltage 50 V DC

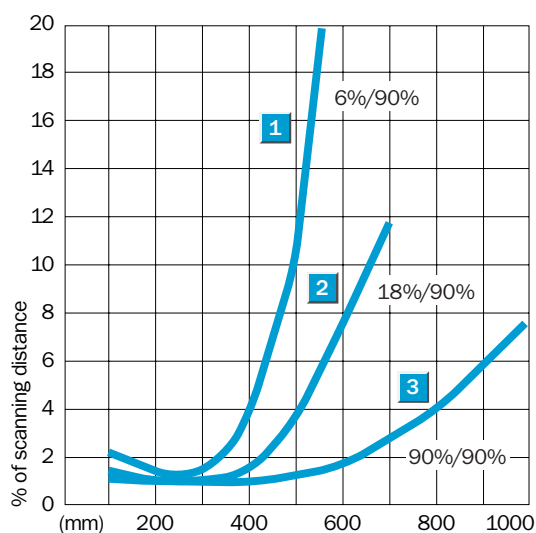
- 8) Low power. Eyes normally protected by averting reaction and eyelid closing reflex.

- 9) A =  $V_S$  connections reverse-polarity protected  
 B = Output Q and  $\bar{Q}$  short-circuit protected  
 C = Interference pulse suppression

### Scanning distance



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



### Order information

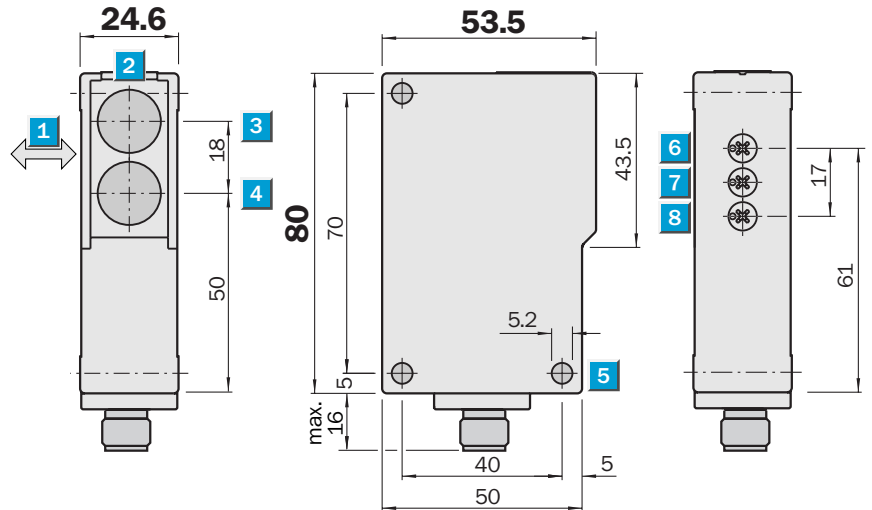
Type	Part no.
WT 27L-2F 430	1 016 019

**Scanning distance**  
 100...1000 mm  
 Photoelectric proximity switches

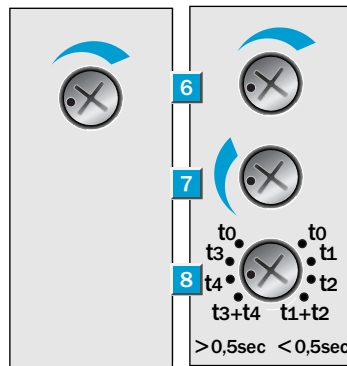
- Red light
- Adjustable background suppression
- Selectable time delay



**Dimensional drawing**



Adjustments possible	
WT 27-2F 430	WT 27-2P 630
WT 27-2F 431	WT 27-2N 630
WT 27-2F 730	



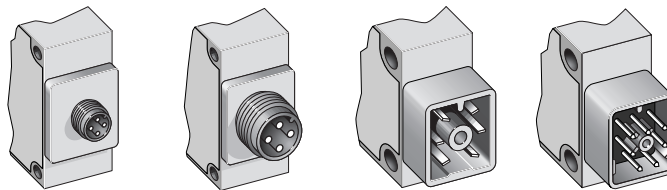
- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis, sender
- 4 Optical axis, receiver
- 5 Mounting hole  $\varnothing$  5.2 mm
- 6 Sensitivity adjustment
- 7 Time control
- 8 Time delay selector switch

**Switch-selectable time delay**

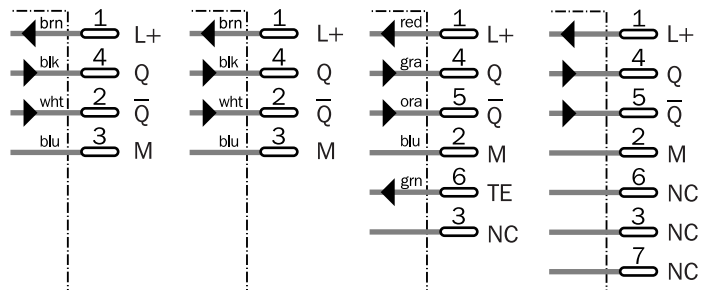
0.5 – 10 s	0.02 – 0.5 s
$t_0$ Without time delay	$t_0$ Without time delay
$t_3$ OFF-delay from trailing edge of object	$t_1$ OFF-delay from trailing edge of object
$t_4$ ON-delay from leading edge of object	$t_2$ ON-delay from leading edge of object
$t_3 + t_4$ OFF- and ON-delay	$t_1 + t_2$ OFF- and ON-delay

**Connection type**

WT 27-2F 430	WT 27-2F 431	WT 27-2P 630 WT 27-2N 630	WT 27-2F 730
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4-pin, M 12	4-pin, M 18	6-pin, Q6, DC	7-pin, Q7, DC
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Accessories
Connectors
Mounting systems



Technical data		WT 27-2	F 430	F 431	P 630	F 730	N 630						
Scanning distance	100...1000 mm, adjustable												
Light source <sup>1)</sup> , light type	LED, red light												
Light spot diameter	Approx. 15 mm at 500 mm												
Supply voltage $V_S$	10...30 V DC <sup>2)</sup>												
Ripple <sup>3)</sup>	$\leq 5 V_{PP}$												
Current consumption <sup>4)</sup>	$\leq 25 \text{ mA}$												
Switching outputs	PNP, Q and $\bar{Q}$ NPN, Q and $\bar{Q}$												
Output current $I_A$ max.	100 mA												
Response time <sup>5)</sup>	2 ms												
Max. switching frequency <sup>6)</sup>	250/s												
Selectable delay ranges	0.5...10 s/0.02...0.5 s												
Test input "TE", sender OFF	PNP: Test input to 0 V NPN: Test input to $V_S$												
Connection types	Plug												
VDE protection class <sup>7)</sup>	<input type="checkbox"/>												
Circuit protection <sup>8)</sup>	A, B, C												
Enclosure rating	IP 67 IP 65												
Ambient temperature $T_A$	Operation $-40 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$ Storage $-40 \text{ }^\circ\text{C} \dots +75 \text{ }^\circ\text{C}$												
Weight	Approx. 100 g												
Housing material	ABS												

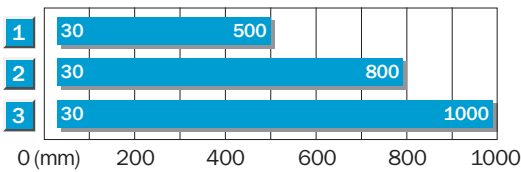
1) Average service life 100,000 h at  $T_A = +25 \text{ }^\circ\text{C}$   
2) Limit values

3) May not exceed or fall short of  $V_S$  tolerances  
4) Without load

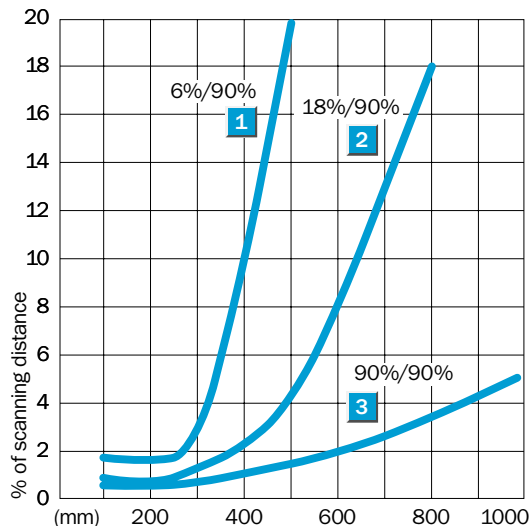
5) Signal transit time with resistive load  
6) With light/dark ratio 1:1  
7) Reference voltage 50 V DC

8) A =  $V_S$  connections reverse-polarity protected  
B = Output Q and  $\bar{Q}$  short-circuit protected  
C = Interference pulse suppression

Scanning distance



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



Order information

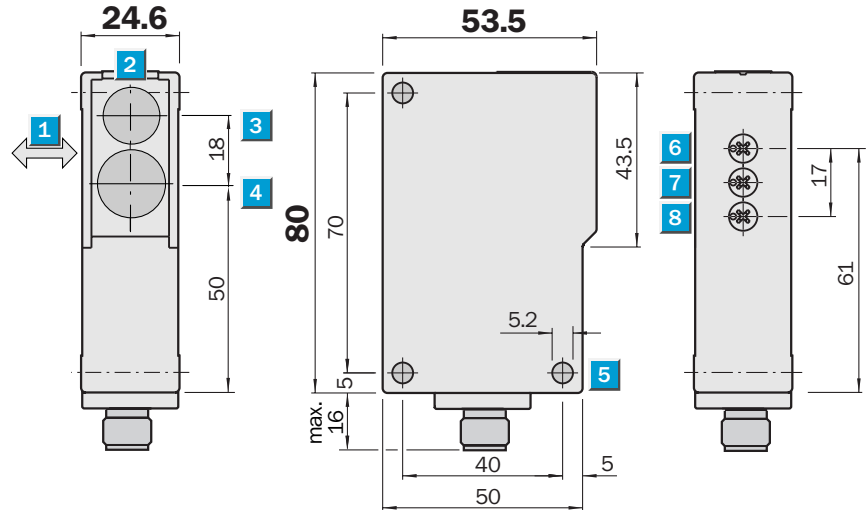
Type	Part no.
WT 27-2F 430	1 015 082
WT 27-2F 431	1 015 086
WT 27-2P 630	1 015 090
WT 27-2F 730	1 015 084
WT 27-2N 630	1 015 088

**Scanning distance**  
 100...1000 mm  
 Photoelectric proximity switches

- Red light
- Adjustable background suppression
- Selectable time delay

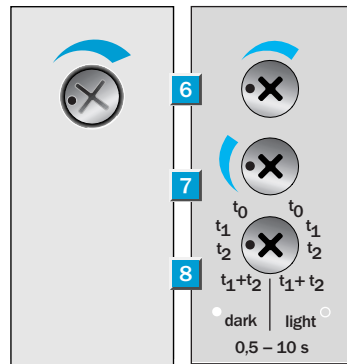


**Dimensional drawing**



**Adjustments possible**

WT 27-2S 132	WT 27-2R 630
WT 27-2S 730	



- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis, sender
- 4 Optical axis, receiver
- 5 Mounting hole  $\varnothing$  5.2 mm
- 6 Sensitivity adjustment
- 7 Time control
- 8 Time delay selector switch
- Light-switching
- Dark-switching

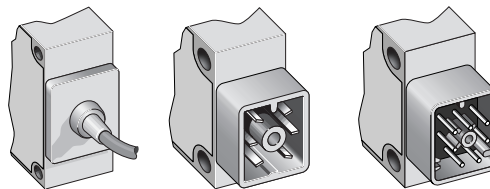
**Switch-selectable time delay**

**0.5 – 10 s**

- $t_0$  Without time delay
- $t_1$  OFF-delay from trailing edge of object
- $t_2$  ON-delay from leading edge of object
- $t_1 + t_2$  OFF- and ON-delay

**Connection type**

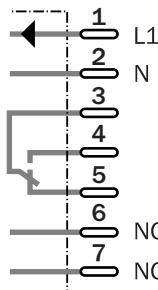
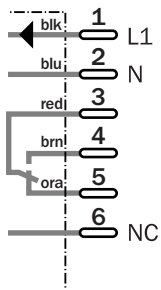
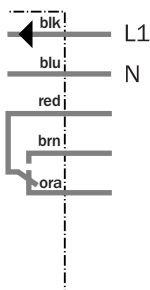
WT 27-2S 132	WT 27-2R 630	WT 27-2S 730
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**5 x 0.25 mm<sup>2</sup>**

**6-pin, Q6, AC/UC**

**7-pin, Q7, AC/UC**



**Accessories**

- Connectors
- Mounting systems



Technical data		WT 27-2	S 132	R 630 <sup>7)</sup>	S 730
<b>Scanning distance</b>	100...1000 mm, adjustable				
<b>Light source<sup>1)</sup>, light type</b>	LED, red light				
Light spot diameter	Approx. 15 mm at 500 mm				
<b>Supply voltage V<sub>S</sub></b>	24...240 V UC (+ 10 %, - 20 %)				
Current consumption	< 2 VA				
<b>Switching outputs</b>	SPDT, isolated <sup>2)</sup>				
Max. switching voltage	250 V AC / 120 V DC				
Max. switching current	4 A / 240 V AC or 24 V DC				
Max. switching capacity	AC 1000 VA / DC 100 W				
Response time	< 6 ms				
Max. switching frequency <sup>3)</sup>	10/s				
Delay range	0.5...10 s				
<b>Connection types</b>	Cable <sup>4)</sup> , 2 m				
	Plug				
<b>VDE protection class<sup>5)</sup></b>	□				
<b>Circuit protection<sup>6)</sup></b>	A, C				
<b>Enclosure rating</b>	IP 67				
	IP 65				
<b>Ambient temperature T<sub>A</sub></b>	Operation - 40 °C...+ 60 °C				
	Storage - 40 °C...+ 75 °C				
<b>Weight</b>	Approx. 100 g				
<b>Housing material</b>	ABS				

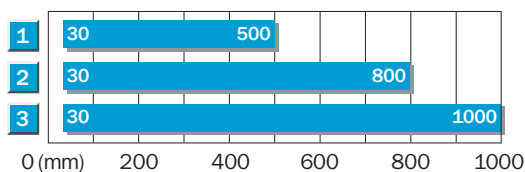
1) Average service life 100,000 h at T<sub>A</sub> = + 25 °C  
 2) Provide suitable spark suppression for inductive and capacitive loads

3) With light/dark ratio 1:1  
 4) Do not bend below 0 °C  
 5) Reference voltage 250 V AC

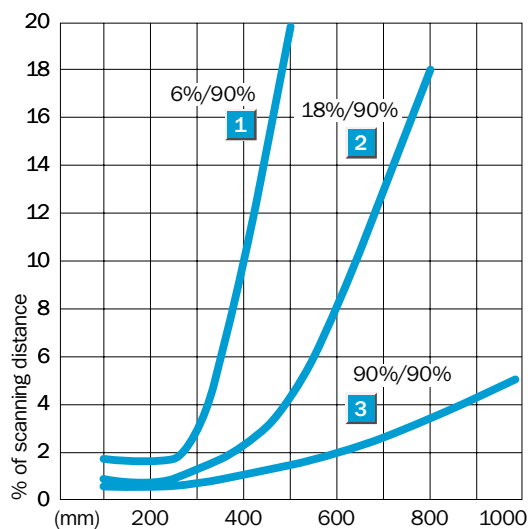
6) A = V<sub>S</sub> connections reverse-polarity protected  
 C = Interference pulse suppression

7) Relay contacts are separate from the power supply by basis insulation of 3 mm

**Scanning distance**




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



**Order information**

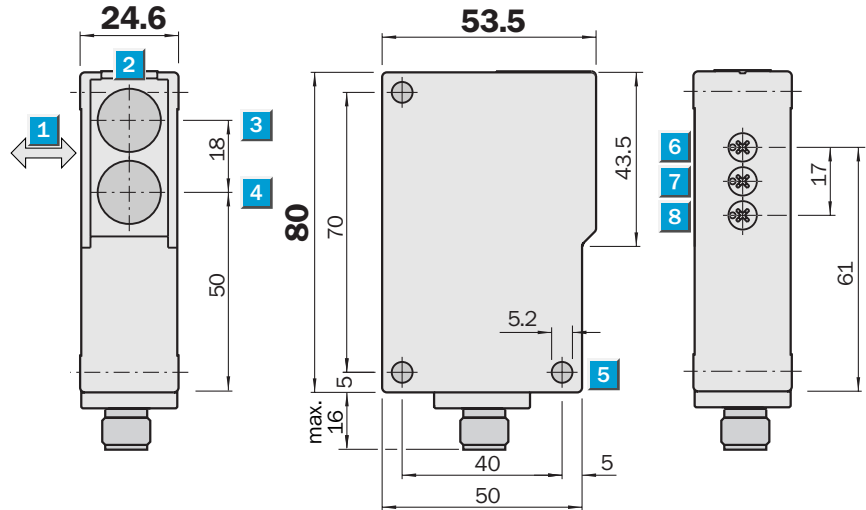
Type	Part no.
WT 27-2S 132	1 015 960
WT 27-2R 630	1 015 092
WT 27-2S 730	1 015 097


**Scanning distance**  
 100...1500 mm  
**Photoelectric proximity switches**

- Infrared light
- Adjustable background suppression
- Front screen heating, optional
- Selectable time delay



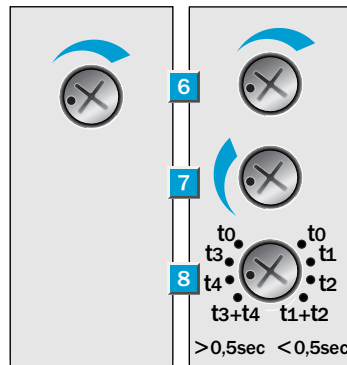
**Dimensional drawing**



**Adjustments possible**

WT 27-2F 112	WT 27-2P 410
WT 27-2F 410	WT 27-2P 610
WT 27-2F 440	WT 27-2N 410
WT 27-2F 411	WT 27-2N 610
WT 27-2F 710	

- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis, sender
- 4 Optical axis, receiver
- 5 Mounting hole  $\varnothing$  5.2 mm
- 6 Sensitivity adjustment
- 7 Time control
- 8 Time delay selector switch

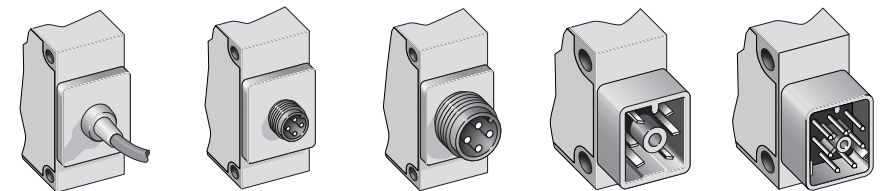


**Switch-selectable time delay**

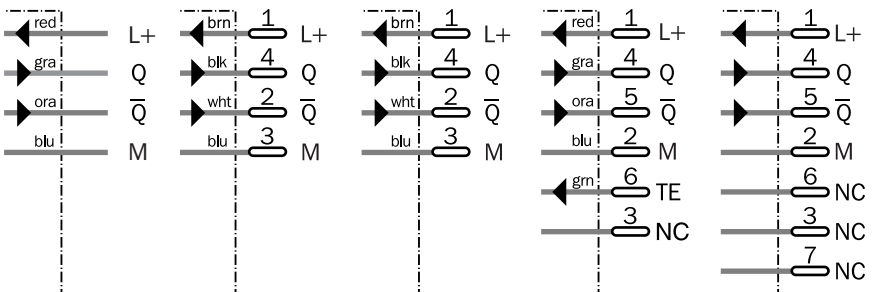
0.5 – 10 s	0.02 – 0.5 s
$t_0$ Without time delay	$t_0$ Without time delay
$t_3$ OFF-delay from trailing edge of object	$t_1$ OFF-delay from trailing edge of object
$t_4$ ON-delay from leading edge of object	$t_2$ ON-delay from leading edge of object
$t_3 + t_4$ OFF- and ON-delay	$t_1 + t_2$ OFF- and ON-delay

**Connection type**

WT 27-2F 112	WT 27-2F 410	WT 27-2F 411	WT 27-2P 610	WT 27-2F 710
	WT 27-2P 410		WT 27-2N 610	
	WT 27-2N 410			
	WT 27-2F 440			



4 x 0.25 mm<sup>2</sup>    4-pin, M 12    4-pin, M 18    6-pin, Q6, DC    7-pin, Q7, DC



**Accessories**

- Connectors
- Mounting systems

Technical data		WT 27-2	F 112	F 410	N 410	F 411	F 440	P 410	P 610	N 610	F 710
<b>Scanning distance</b>	100...1500 mm, adjustable										
<b>Light source<sup>1)</sup>, light type</b>	LED, infrared light										
Light spot diameter	Approx. 25 mm at 800 mm										
<b>Supply voltage <math>V_S</math></b>	10...30 V DC <sup>2)</sup>										
Ripple <sup>3)</sup>	$\leq 5 V_{PP}$										
Current consumption <sup>4)</sup>	$\leq 25$ mA										
	$\leq 35$ mA, front screen heating										
<b>Switching outputs</b>	PNP, Q and $\bar{Q}$										
	NPN, Q and $\bar{Q}$										
Output current $I_A$ max.	100 mA										
Response time <sup>5)</sup>	2 ms										
Max. switching frequency <sup>6)</sup>	250/s										
Selectable delay ranges	0.5...10 s/0.02...0.5 s										
<b>Test input "TE", sender OFF</b>	PNP : Test input to 0 V										
	NPN : Test input to $V_S$										
<b>Connection types</b>	Cable <sup>7)</sup> , 2 m										
	Plug										
<b>VDE protection class<sup>8)</sup></b>	<input type="checkbox"/>										
<b>Circuit protection<sup>9)</sup></b>	A, B, C										
<b>Enclosure rating</b>	IP 67										
	IP 65										
<b>Ambient temperature <math>T_A</math></b>	Operation -40 °C...+60 °C										
	Storage -40 °C...+75 °C										
<b>Weight</b>	Approx. 100 g										
<b>Front screen heating</b>											
<b>Housing material</b>	ABS										

1) Average service life 100,000 h at  $T_A = +25$  °C

2) Limit values

3) May not exceed or fall short of  $V_S$  tolerances

4) Without load

5) Signal transit time with resistive load

6) With light/dark ratio 1:1

7) Do not bend below 0 °C

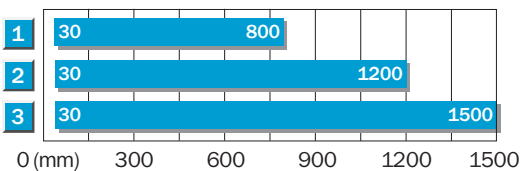
8) Reference voltage 50 V DC

9) A =  $V_S$  connections reverse-polarity protected

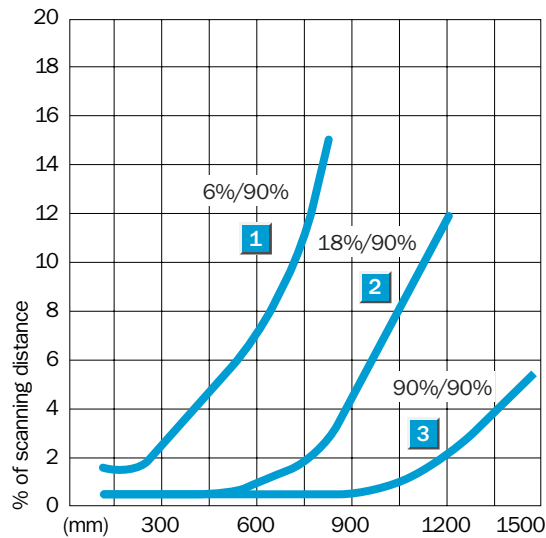
B = Output Q and  $\bar{Q}$  short-circuit protected

C = Interference pulse suppression

**Scanning distance**



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



**Order information**

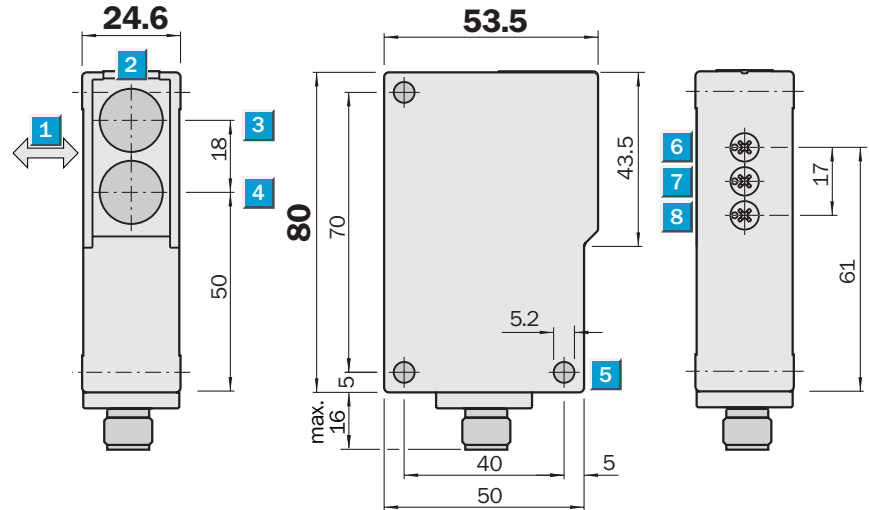
Type	Part no.
WT 27-2F 112	1 015 076
WT 27-2F 410	1 013 268
WT 27-2N 410	1 016 030
WT 27-2F 411	1 015 085
WT 27-2F 440	1 015 079
WT 27-2P 410	1 015 138
WT 27-2P 610	1 015 089
WT 27-2N 610	1 015 087
WT 27-2F 710	1 015 083

**Scanning distance**  
 100...1500 mm  
 Photoelectric proximity switches

- Infrared light
- Adjustable background suppression
- Selectable time delay

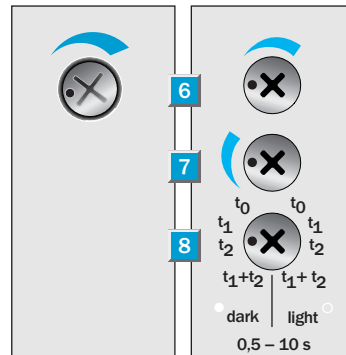


**Dimensional drawing**



**Adjustments possible**

WT 27-2S 112	WT 27-2R 610
WT 27-2S 710	



- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis, sender
- 4 Optical axis, receiver
- 5 Mounting hole  $\varnothing$  5.2 mm
- 6 Sensitivity adjustment
- 7 Time control
- 8 Time delay selector switch
- Light-switching
- Dark-switching

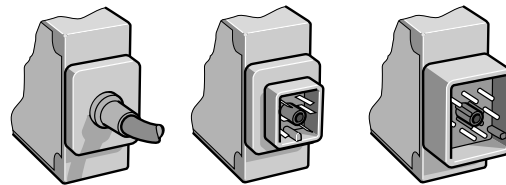
**Switch-selectable time delay**

0.5 – 10 s

- $t_0$  Without time delay
- $t_1$  OFF-delay from trailing edge of object
- $t_2$  ON-delay from leading edge of object
- $t_1 + t_2$  OFF- and ON-delay

**Connection type**

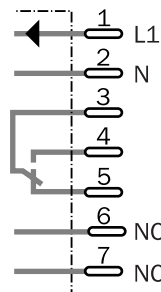
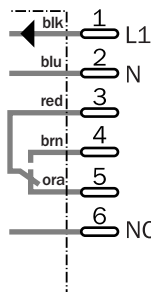
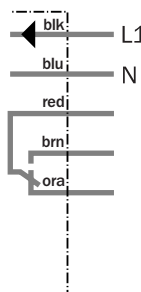
WT 27-2S 112	WT 27-2R 610	WT 27-2S 710
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5 x 0.25 mm<sup>2</sup>

6-pin, Q6, AC/UC

7-pin, Q7, AC/UC



**Accessories**

- Connectors
- Mounting systems



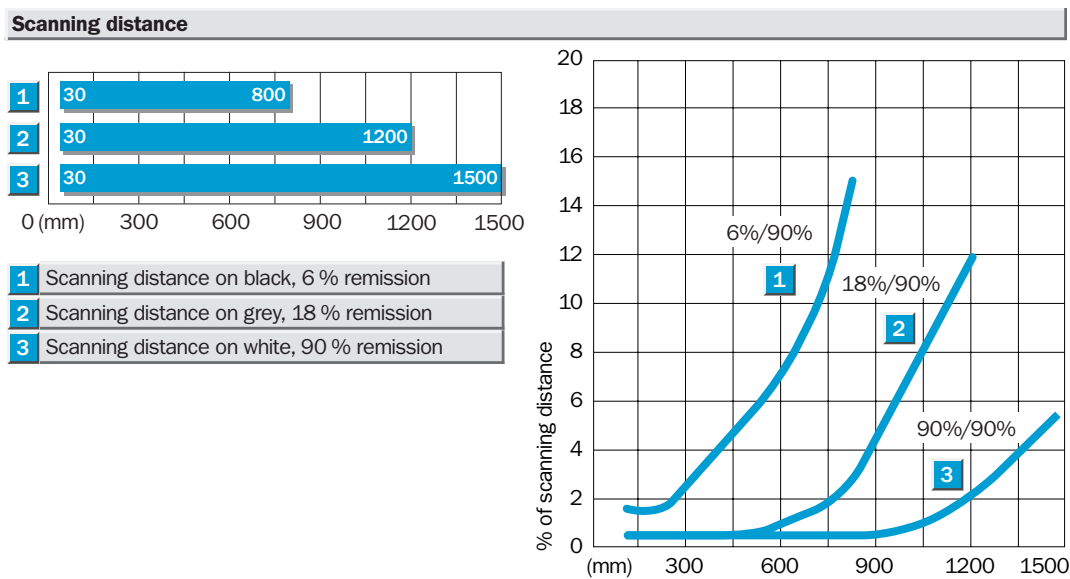
Technical data		WT 27-2	S 112	R 610 <sup>7)</sup>	S 710						
<b>Scanning distance</b>	100...1500 mm, adjustable										
<b>Light source<sup>1)</sup>, light type</b>	LED, infrared light										
Light spot diameter	Approx. 25 mm at 800 mm										
<b>Supply voltage V<sub>S</sub></b>	24...240 V UC (+ 10 %, - 20 %)										
Current consumption	< 2 VA										
<b>Switching outputs</b>	SPDT, isolated <sup>2)</sup>										
Max. switching voltage	250 V AC / DC 120 V										
Max. switching current	4 A / 240 V AC or 24 V DC										
Max. switching capacity	AC 1000 VA / DC 100 W										
Response time	< 6 ms										
Max. switching frequency <sup>3)</sup>	10/s										
Delay range	0.5...10 s										
<b>Connection types</b>	Cable <sup>4)</sup> , 2 m										
	Plug										
<b>VDE protection class<sup>5)</sup></b>	□										
<b>Circuit protection<sup>6)</sup></b>	A, C										
<b>Enclosure rating</b>	IP 67										
	IP 65										
<b>Ambient temperature T<sub>A</sub></b>	Operation - 40 °C...+ 60 °C										
	Storage - 40 °C...+ 75 °C										
<b>Weight</b>	Approx. 100 g										
<b>Housing material</b>	ABS										

1) Average service life 100,000 h at T<sub>A</sub> = +25 °C  
 2) Provide suitable spark suppression for inductive and capacitive loads

3) With light/dark ratio 1:1  
 4) Do not bend below 0 °C  
 5) Reference voltage 250 V AC

6) A = V<sub>S</sub> connections reverse-polarity protected  
 C = Interference pulse suppression

7) Relay contacts are separate from the power supply by basis insulation of 3 mm



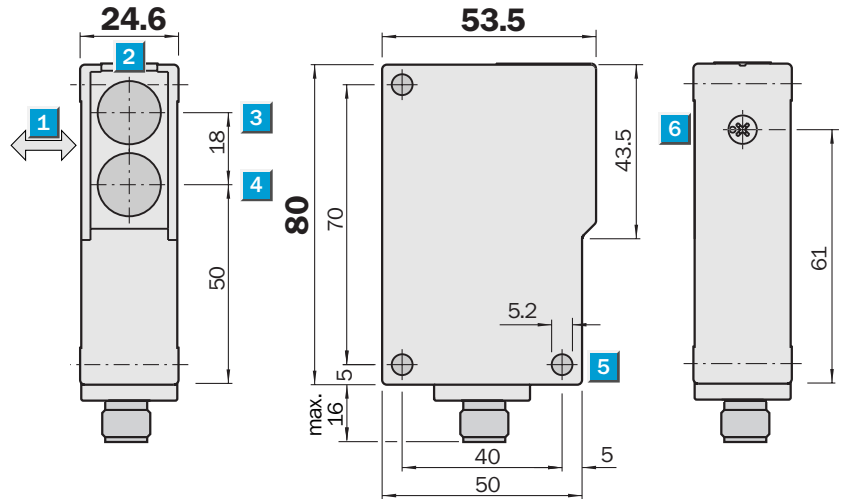
Order information	
Type	Part no.
WT 27-2S 112	1 015 093
WT 27-2R 610	1 015 091
WT 27-2S 710	1 015 096

	Scanning distance 100...1000 mm
	Scanning distance 100...1500 mm
Photoelectric proximity switches	

- Red/infrared light
- Adjustable background suppression
- Front screen heating, optional (only for infrared type)
- Integrated AS-i chip



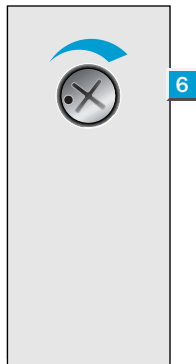
Dimensional drawing



Adjustments possible

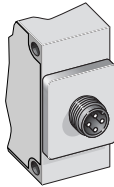
WT 27-2Z 230
WT 27-2Z 210
WT 27-2Z 240

- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis, sender
- 4 Optical axis, receiver
- 5 Mounting hole  $\varnothing$  5.2 mm
- 6 Sensitivity adjustment

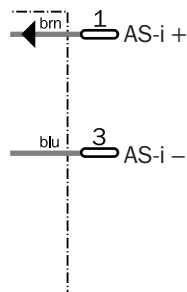


Connection type

WT 27-2Z 230
WT 27-2Z 210
WT 27-2Z 240



4-pin, M 12



<b>Accessories</b>
Connectors
Mounting systems
AS-i

Technical data		WT 27-2	Z 230	Z 210	Z 240						
Scanning distance	100...1000 mm, adjustable										
	100...1500 mm, adjustable										
Light source <sup>1)</sup> , light type	LED, red light										
	LED, infrared light										
Light spot diameter	Approx. 15 mm at 500 mm										
	Approx. 25 mm at 800 mm										
Supply voltage $V_S$	26.5...31.6 V DC <sup>2)</sup>										
Ripple <sup>3)</sup>	$\leq 5 V_{PP}$										
Current consumption <sup>4)</sup>	$\leq 30$ mA										
	$\leq 40$ mA, front screen heating										
Response time <sup>5)</sup>	2 ms										
Max. switching frequency <sup>6)</sup>	250/s										
Pre-failure signalling output Alarm											
Test input "TE"											
Connection type	Plug										
VDE protection class	<input type="checkbox"/>										
Circuit protection <sup>7)</sup>	A, C										
Enclosure rating	IP 67										
AS-i profile	S 1.1										
Ambient temperature $T_A$	Operation $-40$ °C...+ 60 °C										
	Storage $-40$ °C...+ 75 °C										
Weight	Approx. 100 g										
Front screen heating											
Housing material	ABS										

1) Average service life 100,000 h at  $T_A = + 25$  °C  
 2) Limit values  
 3) May not exceed or fall short of  $V_S$  tolerances

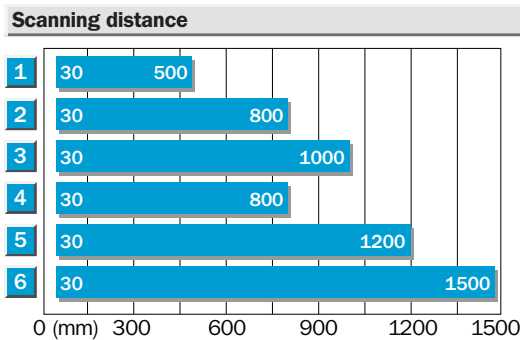
4) Without load  
 5) Signal transit time with resistive load  
 6) With light/dark ratio 1:1

7) A =  $V_S$  connections reverse-polarity protected  
 C = Interference pulse suppression

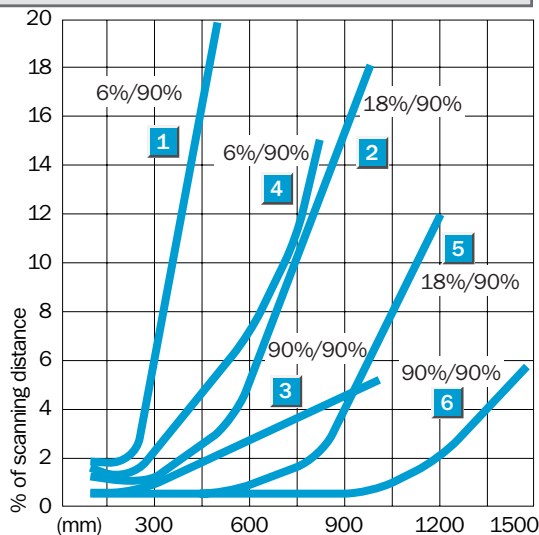
8) Black = 6% remission  
 Grey = 18% remission  
 White = 90% remission

Assignment of data bits				(Host level)	Assignment of parameter bits				(Host level)
D <sub>0</sub>	Switching state	0 Light is not received	Input	P <sub>0</sub> *	NC	0	Parameter		
	Mode: light-switching	1 Light is received				1			
D <sub>1</sub>	Alarm	0 Active	Input	P <sub>1</sub> *	Light-/dark-switching	0 Dark-switching	Parameter		
		1 Inactive				1 Light-switching			
D <sub>2</sub>	NC	0	Input	P <sub>2</sub> *	NC	0	Parameter		
		1				1			
D <sub>3</sub>	Test function	0 Sender ON	Output	P <sub>3</sub> *	NC	0	Parameter		
		1 Sender OFF				1			

\* Default setting = 1



1	Scanning distance on black <sup>8)</sup>	red light
2	Scanning distance on grey <sup>8)</sup>	red light
3	Scanning distance on white <sup>8)</sup>	red light
4	Scanning distance on black <sup>8)</sup>	infrared light
5	Scanning distance on grey <sup>8)</sup>	infrared light
6	Scanning distance on white <sup>8)</sup>	infrared light



Order information	
Type	Part no.
WT 27-2Z 230	1 015 099
WT 27-2Z 210	1 015 098
WT 27-2Z 240	1 015 137

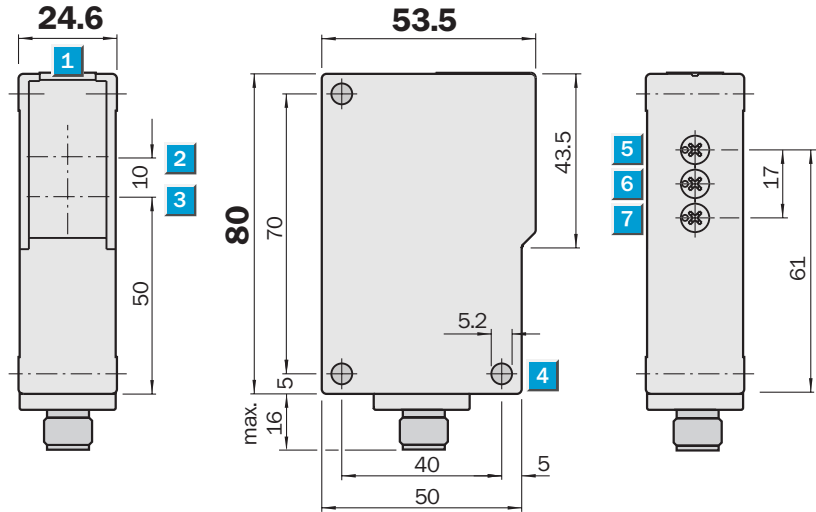
**Scanning range**  
**14 m**

Photoelectric reflex switches

- Red light
- Front screen heating, optional
- Selectable time delay

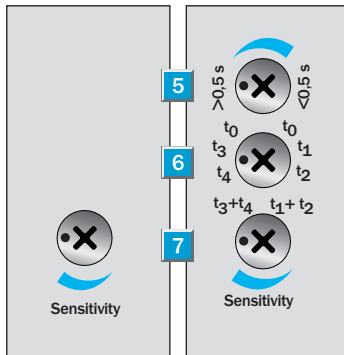


**Dimensional drawing**



**Adjustments possible**

WL 27-2F 132	WL 27-2P 630
WL 27-2F 440	WL 27-2N 630



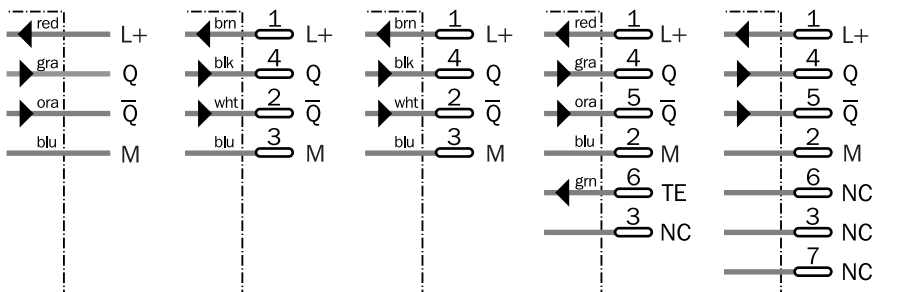
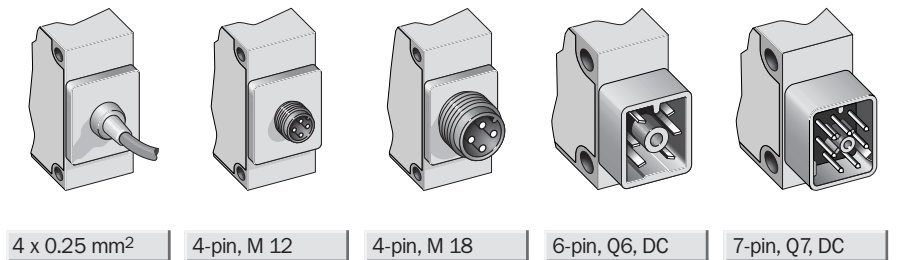
- 1 LED signal strength indicator
- 2 Optical axis, sender
- 3 Optical axis, receiver
- 4 Mounting hole  $\varnothing$  5.2 mm
- 5 Time control
- 6 Time delay selector switch
- 7 Sensitivity adjustment

**Switch-selectable time delay**

0.5 – 10 s	0.02 – 0.5 s
$t_0$ Without time delay	$t_0$ Without time delay
$t_3$ ON-delay from interruption light path	$t_1$ ON-delay from interruption light path
$t_4$ OFF-delay from reset of light path	$t_2$ OFF-delay from reset of light path
$t_3 + t_4$ ON- and OFF-delay	$t_1 + t_2$ ON- and OFF-delay

**Connection types**

WL 27-2F 132	WL 27-2F 430	WL 27-2F 431	WL 27-2P 630	WL 27-2F 730
	WL 27-2F 440		WL 27-2N 630	
	WL 27-2F 450			



**Accessories**

Connectors
Mounting systems
Reflectors

Technical data		WL 27-2	F 132	F 430	F 431	F 440	F 450	P 630	F 730	N 630
<b>Scanning range</b> , max. typ./on reflector	14 m/PL 80 A									
	Adjustable sensitivity									
<b>Light source<sup>1)</sup>, light type</b>	LED, red light									
Light spot diameter	Approx. 220 mm at 10 mm									
<b>Supply voltage <math>V_S</math></b>	10...30 V DC <sup>2)</sup>									
Ripple <sup>3)</sup>	$\leq 5 V_{PP}$									
Current consumption <sup>4)</sup>	$\leq 25 \text{ mA}$									
	$\leq 35 \text{ mA}$ , front screen heating									
<b>Switching outputs</b>	PNP, Q and $\bar{Q}$									
	NPN, Q and $\bar{Q}$									
Output current $I_A$ max.	100 mA									
Response time <sup>5)</sup>	$\leq 500 \mu\text{s}$									
Max. switching frequency <sup>6)</sup>	1000/s									
Selectable delay ranges	0.5...10 s/0.02...0.5 s									
<b>Test input "TE", sender OFF</b>	PNP : Test input to 0 V									
	NPN : Test input to $V_S$									
<b>Connection types</b>	Cable <sup>7)</sup> , 2 m									
	Plug									
<b>VDE protection class<sup>8)</sup></b>	<input type="checkbox"/>									
<b>Circuit protection<sup>9)</sup></b>	A, B, C									
<b>Enclosure rating</b>	IP 67									
	IP 65									
<b>Ambient temperature <math>T_A</math></b>	Operation $-40 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$									
	Storage $-40 \text{ }^\circ\text{C} \dots +75 \text{ }^\circ\text{C}$									
<b>Weight</b>	Approx. 100 g									
<b>Front screen heating</b>										
<b>Polarising filter</b>										
<b>Housing material</b>	ABS									

1) Average service life 100,000 h at  $T_A = +25 \text{ }^\circ\text{C}$

2) Limit values

3) May not exceed or fall short of  $V_S$  tolerances

4) Without load

5) Signal transit time with resistive load

6) With light/dark ratio 1:1

7) Do not bend below  $0 \text{ }^\circ\text{C}$

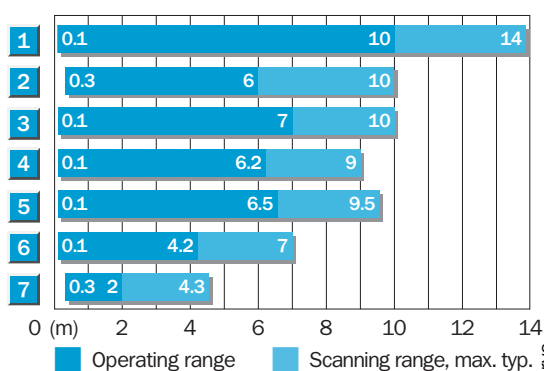
8) Reference voltage 50 V DC

9) A =  $V_S$  connections reverse-polarity protected

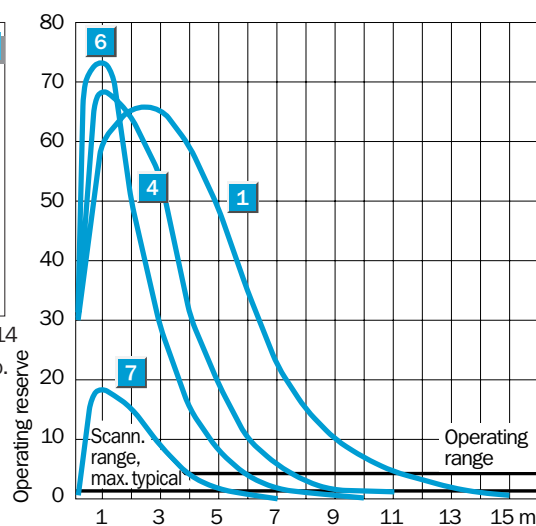
B = Output Q and  $\bar{Q}$  short-circuit protected

C = Interference pulse suppression

**Operating range and operating reserve**



Reflector type	Operating range
1 PL 80 A	0,1...10,0 m
2 C 110	0,3...6,0 m
3 PL 50 A	0,1...7,0 m
4 PL 40 A	0,1...6,2 m
5 PL 30 A	0,1...6,5 m
6 PL 20 A	0,1...4,2 m
7 Reflective tape "Diamond Grade"	0,3...2,0 m



**Order information**

Type	Part no.
WL 27-2F 132	1 015 100
WL 27-2F 430	1 013 269
WL 27-2F 431	1 015 106
WL 27-2F 440	1 015 101
WL 27-2F 450	1 015 102
WL 27-2P 630	1 015 108
WL 27-2F 730	1 015 104
WL 27-2N 630	1 015 107

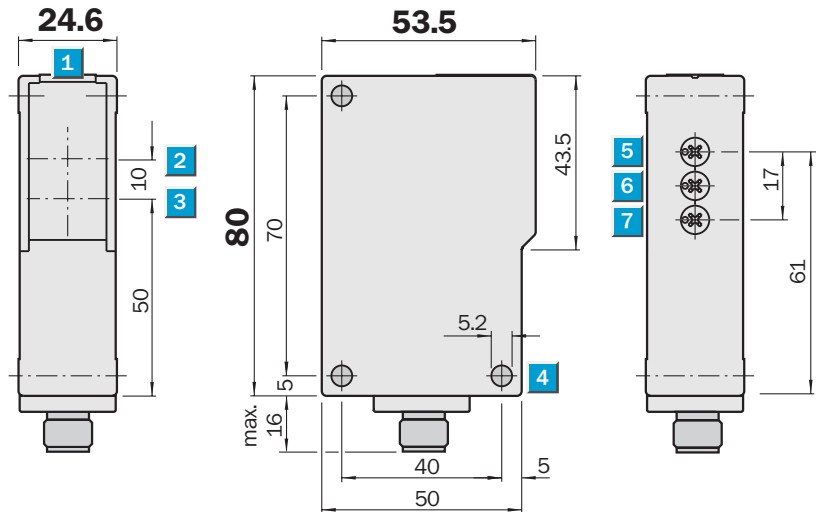
**Scanning range**  
**14 m**

Photoelectric reflex switches

- Red light
- Selectable time delay

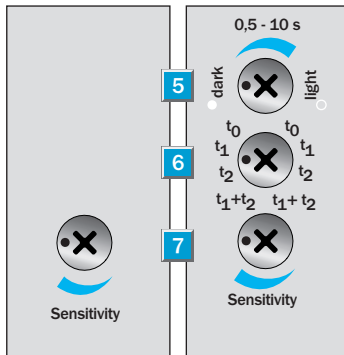


**Dimensional drawing**



**Adjustments possible**

WL 27-2S 132	WL 27-2R 630
WL 27-2S 730	



- 1 LED signal strength indicator
- 2 Optical axis, sender
- 3 Optical axis, receiver
- 4 Mounting hole  $\varnothing$  5.2 mm
- 5 Time control
- 6 Time delay selector switch
- Light-switching
- Dark-switching
- 7 Sensitivity adjustment

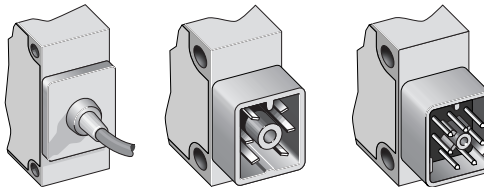
**Switch-selectable time delay**

**0.5 – 10 s**

- $t_0$  Without time delay
- $t_1$  ON-delay from interruption of light path
- $t_2$  OFF-delay from reset of light path
- $t_1 + t_2$  ON- and OFF-delay

**Connection types**

WL 27-2S 132	WL 27-2R 630	WL 27-2S 730
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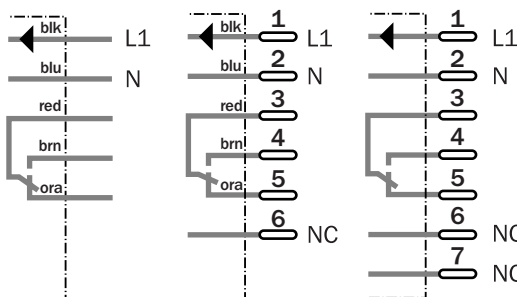
**Accessories**

Connectors
Mounting systems
Reflectors

**5 x 0.25 mm<sup>2</sup>**

**6-pin, Q6, AC/UC**

**7-pin, Q7, AC/UC**



Technical data		WL 27-2	S 132	R 630 <sup>7)</sup>	S 730						
<b>Scanning range</b> , max. typ./on reflector	14 m/PL 80 A										
	Adjustable sensitivity										
<b>Light source<sup>1)</sup>, light type</b>	LED, red light										
Light spot diameter	Approx. 220 mm at 10 mm										
<b>Supply voltage V<sub>S</sub></b>	24...240 V UC (+ 10 %, – 20 %)										
Current consumption	< 2 VA										
<b>Switching outputs</b>	SPDT, isolated <sup>2)</sup>										
Max. switching voltage	250 V AC / 120 V DC										
Max. switching current	4 A / 240 V AC or 24 V DC										
Max. switching capacity	AC 1000 VA / DC 100 W										
Response time	< 6 ms										
Max. switching frequency <sup>3)</sup>	10/s										
Delay range	0.5...10 s										
<b>Connection types</b>	Cable <sup>4)</sup> , 2 m										
	Plug										
<b>VDE protection class<sup>5)</sup></b>	□										
<b>Circuit protection<sup>6)</sup></b>	A, C										
<b>Enclosure rating</b>	IP 67										
	IP 65										
<b>Ambient temperature T<sub>A</sub></b>	Operation – 40 °C...+ 60 °C										
	Storage – 40 °C...+ 75 °C										
<b>Weight</b>	Approx. 100 g										
<b>Polarising filter</b>											
<b>Housing material</b>	ABS										

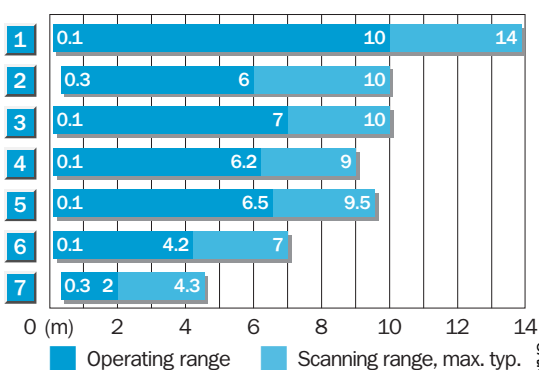
1) Average service life 100,000 h at T<sub>A</sub> = + 25 °C  
 2) Provide suitable spark suppression for inductive and capacitive loads.

3) With light/dark ratio 1:1  
 4) Do not bend below 0 °C  
 5) Reference voltage 250 V AC

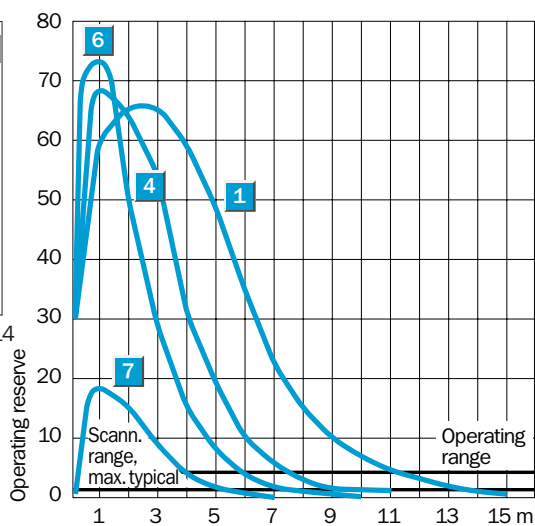
6) A = V<sub>S</sub> connections reverse-polarity protected  
 C = Interference pulse suppression

7) Relay contacts are separate from the power supply by basis insulation of 3 mm

**Operating range and operating reserve**



Reflector type	Operating range
1 PL 80 A	0,1...10,0 m
2 C 110	0,3...6,0 m
3 PL 50 A	0,1...7,0 m
4 PL 40 A	0,1...6,2 m
5 PL 30 A	0,1...6,5 m
6 PL 20 A	0,1...4,2 m
7 Reflective tape "Diamond Grade"	0,3...2,0 m



**Order information**

Type	Part no.
WL 27-2-S 132	1 015 110
WL 27-2-R 630	1 015 109
WL 27-2-S 730	1 015 111



Technical data		WL 27-2	Z 230	Z 240								
<b>Scanning range</b> , max. typ./on reflector	14 m/PL 80 A											
<b>Light source<sup>1)</sup>, light type</b>	LED, red light											
Light spot diameter	220 mm at a distance of 10 mm											
<b>Supply voltage <math>V_S</math></b>	DC 26.5...31.6 V <sup>2)</sup>											
Ripple <sup>3)</sup>	$\leq 5 V_{PP}$											
Current consumption <sup>4)</sup>	$\leq 30$ mA											
	$\leq 40$ mA, front screen heating											
Response time <sup>5)</sup>	500 $\mu$ s											
Max. switching frequency <sup>6)</sup>	1000/s											
Pre-failure signalling output Alarm												
<b>Test input "TE"</b>												
<b>Connection type</b>	Plug											
<b>VDE protection class</b>	$\square$											
<b>Circuit protection<sup>7)</sup></b>	A, C											
<b>Enclosure rating</b>	IP 67											
<b>AS-i profile</b>	S 1.1											
<b>Ambient temperature <math>T_A</math></b>	Operation $-40$ °C... $+60$ °C											
	Storage $-40$ °C... $+75$ °C											
<b>Weight</b>	Approx. 100 g											
<b>Front screen heating</b>												
<b>Polarising filter</b>												
<b>Housing material</b>	ABS											

1) Average service life 100,000 h at  $T_A = +25$  °C  
 2) Limit values

3) May not exceed or fall short of  $V_S$  tolerances  
 4) Without load

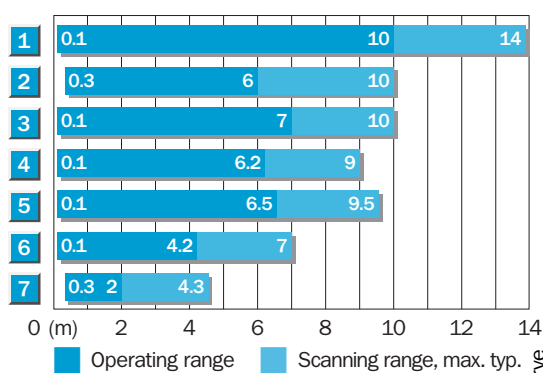
5) Signal transit time with resistive load  
 6) With light/dark ratio 1:1

7) A =  $V_S$  connections reverse-polarity protected  
 C = Interference pulse suppression

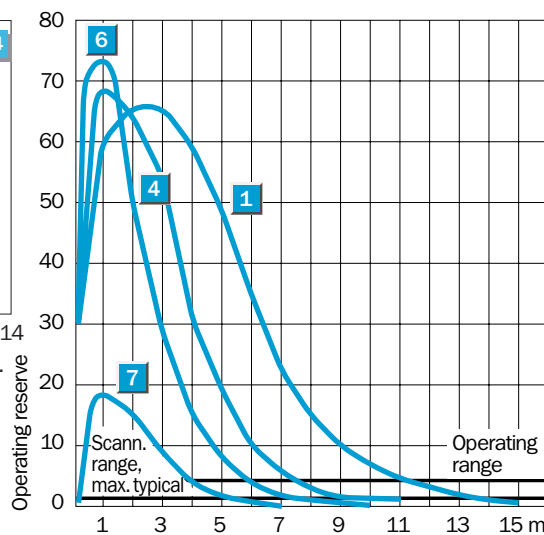
Assignment of data bits (Host level)				Assignment of parameter bits (Host level)			
D <sub>0</sub>	Switching state	0 Light is not received	Input	P <sub>0</sub> *	NC	0	Parameter
	Mode: light-switching	1 Light is received				1	
D <sub>1</sub>	Alarm	0 Active	Input	P <sub>1</sub> *	Light-/dark-switching	0 Dark-switching	Parameter
		1 Inactive				1 Light-switching	
D <sub>2</sub>	NC	0	Input	P <sub>2</sub> *	NC	0	Parameter
		1				1	
D <sub>3</sub>	Test function	0 Sender ON	Output	P <sub>3</sub> *	NC	0	Parameter
		1 Sender OFF				1	

\* Default setting = 1

**Operating range and operating reserve**



Reflector type	Operating range
1 PL 80 A	0,1...10,0 m
2 C 110	0,3...6,0 m
3 PL 50 A	0,1...7,0 m
4 PL 40 A	0,1...6,2 m
5 PL 30 A	0,1...6,5 m
6 PL 20 A	0,1...4,2 m
7 Reflective tape "Diamond Grade"	0,3...2,0 m



**Order information**

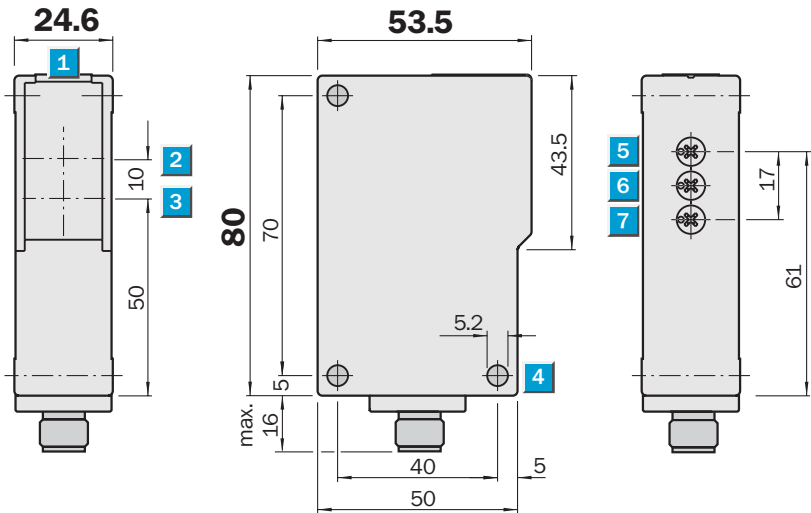
Type	Part no.
WL 27-2Z 230	1 015 112
WL 27-2Z 240	1 015 136

**Scanning range**  
35 m

Through-beam photoelectric switches

- Visible red light
- Front screen heating, optional
- Selectable time delay

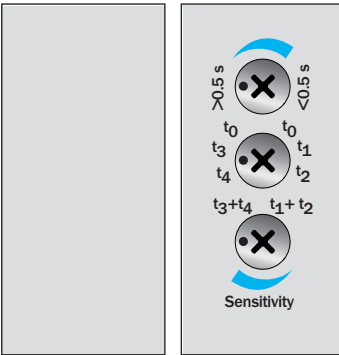
**Dimensional drawing**



**Adjustments possible**

WS/WE 27-2F 430	WS/WE 27-2P 630
WS/WE 27-2F 431	WS/WE 27-2N 630
WS/WE 27-2F 450	
WS/WE 27-2F 730	

- 1 LED signal strength indicator
- 2 Optical axis, sender
- 3 Optical axis, receiver
- 4 Mounting hole  $\varnothing$  5.2 mm
- 5 Time control
- 6 Time delay selector switch
- 7 Sensitivity adjustment

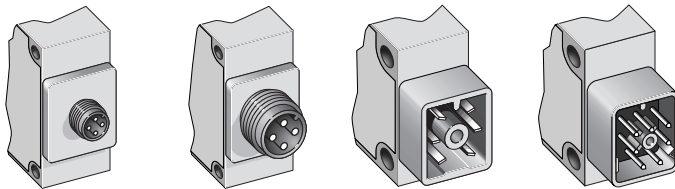


**5 Switch-selectable time delay**

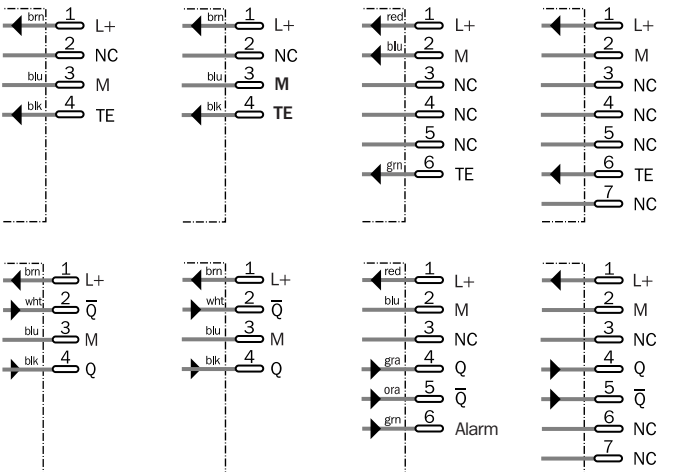
0.5 – 10 s	0.02 – 0.5 s
6 $t_0$ Without time delay	$t_0$ Without time delay
6 $t_3$ ON-delay from interruption of light path	$t_1$ ON-delay from interruption of light path
7 $t_4$ OFF-delay from reset of light path	$t_2$ OFF-delay from reset of light path
$t_3 + t_4$ ON- and OFF-delay	$t_1 + t_2$ ON- and OFF-delay

**Connection types**

WS/WE 27-2F 430	WS/WE 27-2F 431	WS/WE 27-2P 630	WS/WE 27-2F 730
WS/WE 27-2F 450		WS/WE 27-2N 630	



4-pin, M 12      4-pin, M 18      6-pin, Q6, DC      7-pin, Q7, DC



**Accessories**

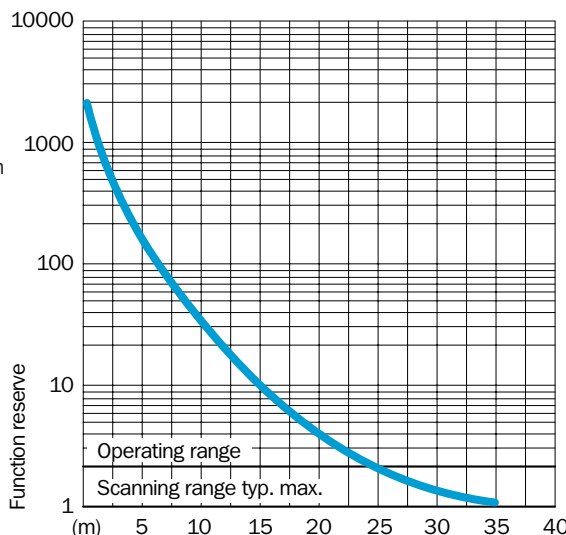
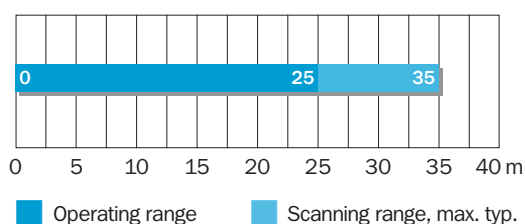
Connectors
Mounting systems



Technical data		WS/WE 27-2	F 430	F 431	F 450	P 630	N 630	F 730				
<b>Scanning range</b> , max. typical	0...35 m											
	Adjustable sensitivity											
<b>Light source<sup>1)</sup>, light type</b>	LED, red light											
Light spot diameter	Approx. 1200 mm at 25 mm											
Angle of dispersion	3°											
<b>Supply voltage V<sub>S</sub></b>	10...30 V DC <sup>2)</sup>											
Ripple <sup>3)</sup>	≤ 5 V <sub>PP</sub>											
Current consumption <sup>4)</sup>	≤ 25 mA											
	≤ 35 mA, sender without heating											
	≤ 45 mA, sender with heating											
	≤ 25 mA, receiver without heating											
	≤ 35 mA, receiver with heating											
<b>Switching outputs</b>	PNP, Q and $\bar{Q}$											
	NPN, Q and $\bar{Q}$											
Output current I <sub>A</sub> max.	100 mA											
Response time <sup>5)</sup>	≤ 500 μs											
Max. switching frequency <sup>6)</sup>	1000/s											
Selectable delay ranges	0.5...10 s/0.02...0.5 s											
Pre-failure signalling output	Alarm <sup>7)</sup>											
<b>Test input "TE"</b> , sender OFF	PNP : Test input to 0 V											
	NPN : Test input to V <sub>S</sub>											
<b>Connection types</b>	Plug											
<b>VDE protection class<sup>8)</sup></b>	□											
<b>Circuit protection<sup>9)</sup></b>	A, B, C											
<b>Enclosure rating</b>	IP 65											
	IP 67											
<b>Ambient temperature T<sub>A</sub></b>	Operation -40 °C...+60 °C											
	Storage -40 °C...+75 °C											
<b>Weight</b>	Approx. 100 g											
<b>Front screen heating</b>												
<b>Housing material</b>	ABS											

- 1) Average service life 100,000 h at T<sub>A</sub> = +25 °C
- 2) Limit values
- 3) May not exceed or fall short of V<sub>S</sub> tolerances
- 4) Without load
- 5) Signal transit time with resistive load
- 6) With light/dark ratio 1:1
- 7) NPN: Signal reserve > 50 % HIGH  
PNP: Signal reserve > 50 % LOW
- 8) Reference voltage 50 V DC
- 9) A = V<sub>S</sub> connections reverse-polarity protected  
B = Output Q and  $\bar{Q}$  short-circuit protected  
C = Interference pulse suppression

**Operating range and operating reserve**



**Order information**

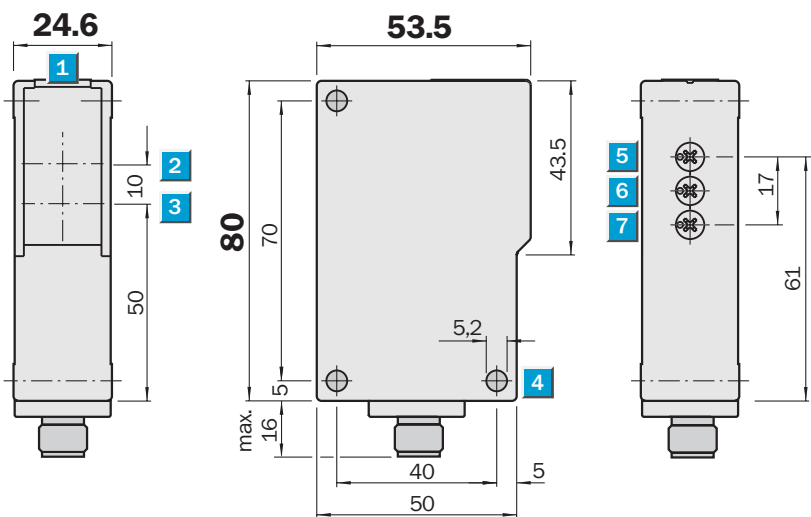
Type	Part no.
WS/WE 27-2F430	1 015 121
WS/WE 27-2F431	1 015 126
WS/WE 27-2F450	1 015 127
WS/WE 27-2P630	1 015 123
WS/WE 27-2N630	1 015 122
WS/WE 27-2F 730	1 015 124

**Scanning range**  
35 m

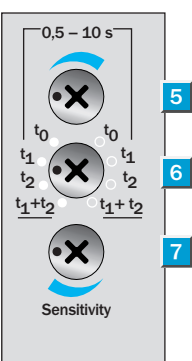
Through-beam photoelectric switches

- Red light
- Selectable time delay

**Dimensional drawing**



**Adjustments possible**  
WS/WE 27-2R 630

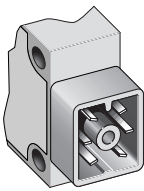


- 1 LED signal strength indicator
- 2 Optical axis, sender
- 3 Optical axis, receiver
- 4 Mounting hole  $\varnothing$  5.2 mm
- 5 Time control
- 6 Time delay selector switch
- Light-switching
- Dark-switching
- 7 Sensitivity adjustment

**Switch-selectable time delay**

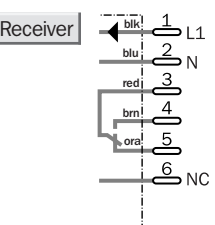
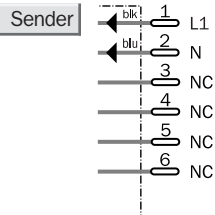
- 0.5 - 10 s**
- $t_0$  Without time delay
  - $t_1$  ON-delay from interruption of light path
  - $t_2$  OFF-delay from reset of light path
  - $t_1 + t_2$  ON- and OFF-delay

**Connection types**  
WS/WE 27-2R 630



6-pin, Q6, AC/UC

- Accessories**
- Connectors
  - Mounting systems



**Technical data** WS/WE 27-2 R 630<sup>5)</sup>

<b>Scanning range</b> , max. typical	0...35 m
<b>Light source<sup>1)</sup>, light type</b>	LED, red light
Light spot diameter	Approx. 1200 mm at 25 mm
Angle of dispersion	3°
<b>Supply voltage V<sub>S</sub></b>	24...240 V UC (+ 10 %, - 20 %)
Current consumption	< 2 VA
<b>Switching outputs</b>	SPDT, isolated <sup>2)</sup>
Max. switching voltage	250 V AC / 120 V DC
Max. switching current	4 A / 240 V AC or 24 V DC
Max. switching capacity	AC 1000 VA / DC 100 W
Response time	< 6 ms
Max. switching frequency <sup>3)</sup>	10/s
Delay range	0.5...10 s
<b>Connection type</b>	Plug
<b>Circuit protection<sup>4)</sup></b>	A, C
<b>Enclosure rating</b>	IP 65
<b>Ambient temperature T<sub>A</sub></b>	Operation - 40 °C...+ 60 °C Storage - 40 °C...+ 75 °C
<b>Weight</b>	Approx. 100 g
<b>Housing material</b>	ABS

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

<sup>2)</sup> Provide suitable spark suppression for inductive and capacitive loads.

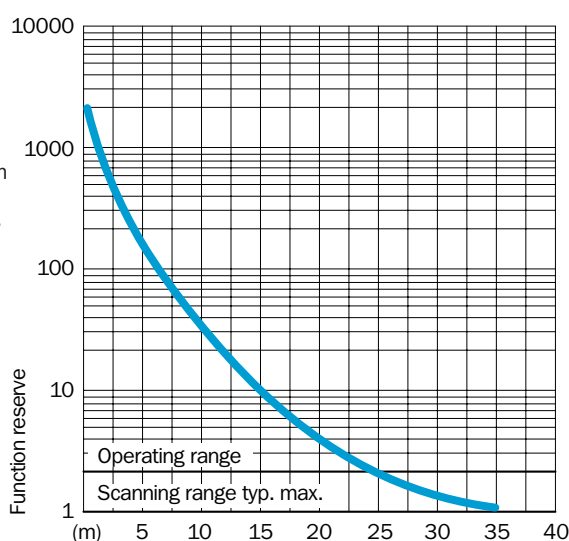
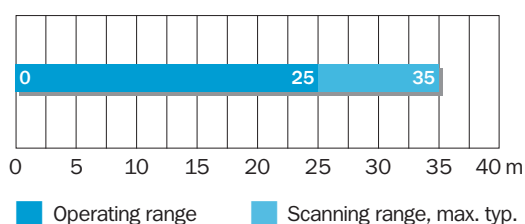
<sup>3)</sup> With light/dark ratio 1:1

<sup>4)</sup> A = V<sub>S</sub> connections reverse-polarity protected


C = Interference pulse suppression

<sup>5)</sup> Relay contacts are separate from the power supply by basis insulation of 3 mm

**Operating range and operating reserve**



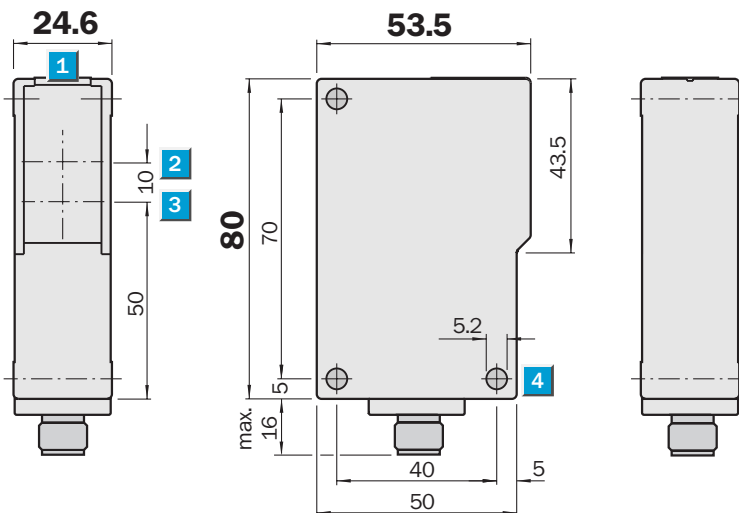
Order information	
Type	Part no.
WS/WE 27-2R 630	1 015 116

 **Scanning range**  
35 m

Through-beam photoelectric switches

- Red light
- Selectable time delay
- With integrated AS-i chip

**Dimensional drawing**

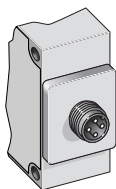


**Adjustments possible**  
WS/WE 27-2Z 250



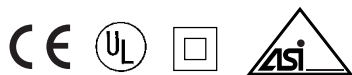
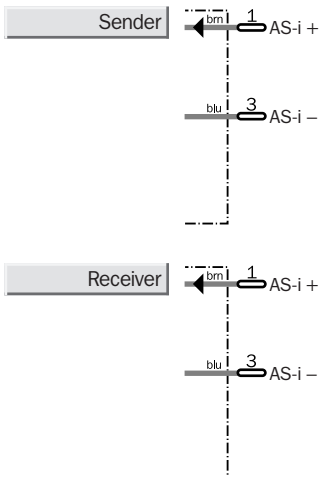
- 1 LED signal strength indicator
- 2 Optical axis, sender
- 3 Optical axis, receiver
- 4 Mounting hole  $\varnothing$  5.2 mm

**Connection types**  
WS/WE 27-2Z 250



4-pin, M 12

<b>Accessories</b>
Connectors
Mounting systems
AS-i



Technical data		WS/WE 27-2	Z 250								
<b>Scanning range</b> , max. typical		0...35 m									
<b>Light source<sup>1)</sup>, light type</b>		LED, red light									
Light spot diameter		Approx. 1200 mm at 25 m									
Angle of dispersion		3°									
<b>Supply voltage V<sub>S</sub></b>		26.5...31.6 V DC <sup>2)</sup>									
Ripple <sup>3)</sup>		≤ 5 V <sub>PP</sub>									
Current consumption <sup>4)</sup>	sender	≤ 35 mA, front screen heating									
	receiver	≤ 40 mA, front screen heating									
Response time <sup>5)</sup>		500 μs									
Max. switching frequency <sup>6)</sup>		1000/s									
Pre-failure signalling output Alarm											
<b>Test input "TE"</b>											
<b>Connection type</b>		Plug									
<b>VDE protection class<sup>7)</sup></b>		□									
<b>Circuit protection<sup>8)</sup></b>		A, C									
<b>Enclosure rating</b>		IP 67									
<b>AS-i profile WS 27-2</b>		S D.1									
<b>AS-i profile WE 27-2</b>		S 1.1									
<b>Ambient temperature T<sub>A</sub></b>		Operation - 40 °C...+ 60 °C Storage - 40 °C...+ 75 °C									
<b>Weight</b>		Approx. 100 g									
<b>Front screen heating</b>											
<b>Housing material</b>		ABS									

<sup>1)</sup> Average service life 100,000 h at T<sub>A</sub> = +25 °C  
<sup>2)</sup> Limit values

<sup>3)</sup> May not exceed or fall short of V<sub>S</sub> tolerances  
<sup>4)</sup> Without load

<sup>5)</sup> Signal transit time with resistive load  
<sup>6)</sup> With light/dark ratio 1:1  
<sup>7)</sup> Reference voltage 50 V DC

<sup>8)</sup> A = V<sub>S</sub> connections reverse-polarity protected  
C = Interference pulse suppression

WS 27-2 – Assignment of data bits			(Host level)
D <sub>0</sub>	Test function	0 Sender OFF 1 Sender ON	Output
D <sub>1</sub>	NC	0 1	Input
D <sub>2</sub>	NC	0 1	Input
D <sub>3</sub>	NC	0 1	Input

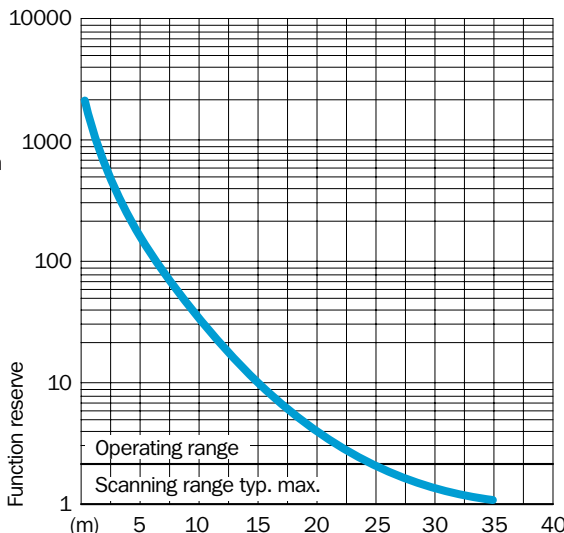
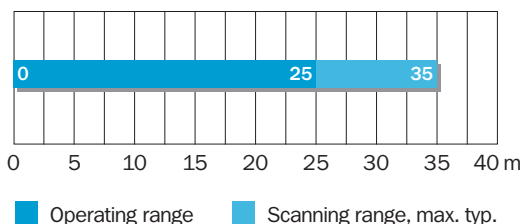
WS 27-2 – Assignment of parameter bits			(Host level)
P <sub>0</sub> *	NC	0 1	Parameter
P <sub>1</sub> *	NC	0 1	Parameter
P <sub>2</sub> *	NC	0 1	Parameter
P <sub>3</sub> *	NC	0 1	Parameter

WE 27-2 – Assignment of data bits			(Host level)
D <sub>0</sub>	Switching state Mode: light-switching	0 Light is not received 1 Light is received	Input
D <sub>1</sub>	Alarm	0 Active 1 Inactive	Input
D <sub>2</sub>	NC	0 1	Input
D <sub>3</sub>	NC	0 1	Output

WE 27-2 – Assignment of parameter bits			(Host level)
P <sub>0</sub> *	NC	0 1	Parameter
P <sub>1</sub> *	Light-/dark-switching	0 Dark-switching 1 Light-switching	Parameter
P <sub>2</sub> *	NC	0 1	Parameter
P <sub>3</sub> *	NC	0 1	Parameter

\* Default setting = 1

**Operating range and operating reserve**



**Order information**

Type	Part no.
WS/WE 27-2Z 250	1 015 140

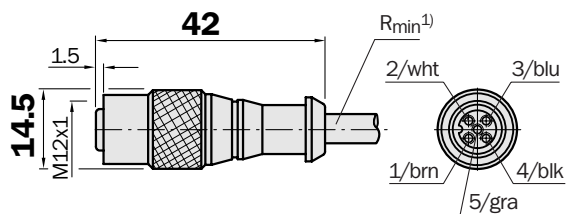
Dimensional drawings and order information

SENSICK screw-in system M 12, 4-pin, enclosure rating IP 67

Female connector M12, 4-pin, straight

Cable Ø 5/6 mm, 4/5 x 0.25 mm<sup>2</sup>, sheath PVC

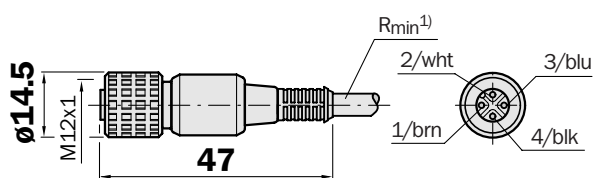
Type	Part no.	Contacts	Cable length
DOL-1204-G02M	6 009 382	4	2 m
DOL-1204-G05M	6 009 866	4	5 m
DOL-1204-G10M	6 010 543	4	10 m
DOL-1205-G15M	6 010 753	4	15 m



Female connector M 12, 4-pin, straight

Cable Ø 4.5 mm, 4 x 0.34 mm<sup>2</sup>, sheath PUR

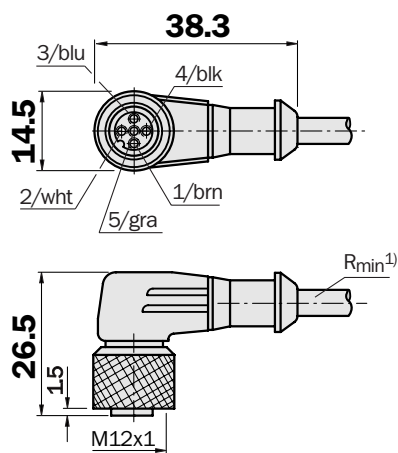
Type	Part no.	Cable length
DOL-1204-G05MB	7 902 084	5 m



Female connector M12, 4-pin, right angle

Cable Ø 5/6 mm, 4/5 x 0.25 mm<sup>2</sup>, sheath PVC

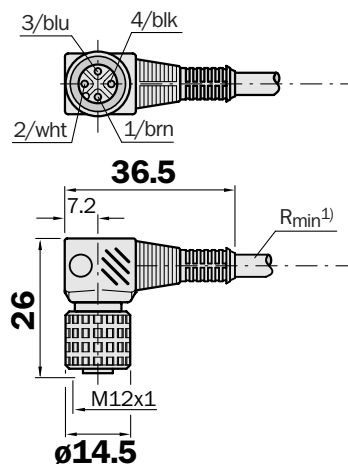
Type	Part no.	Contacts	Cable length
DOL-1204-W02M	6 009 383	4	2 m
DOL-1204-W05M	6 009 867	4	5 m
DOL-1204-W10M	6 010 541	4	10 m



Female connector M 12, 4-pin, right angle

Cable Ø 4.5 mm, 4 x 0.34 mm<sup>2</sup>, sheath PUR

Type	Part no.	Contacts
DOL-1204-W05MB	7 902 085	5 m



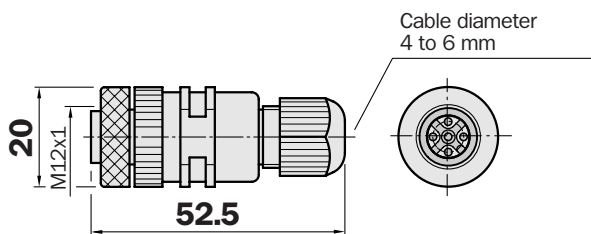
<sup>1)</sup> Minimum bend radius in dynamic use  
 $R_{min} = 20 \times \text{cable diameter}$

Dimensional drawings and order information

SENSICK screw-in system M 12, 4-pin, enclosure rating IP 67

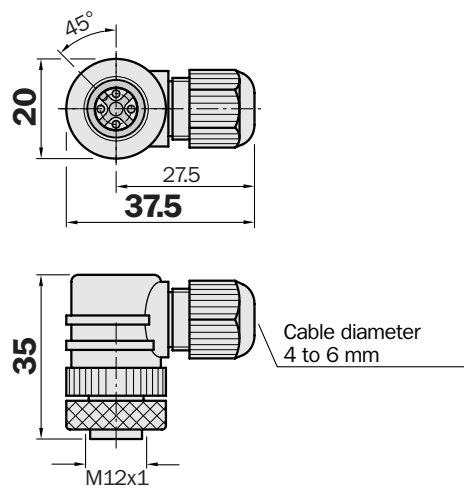
Female connector M 12, 4-pin, straight

Type	Part no.	Contacts
DOS-1204-G	6 007 302	4



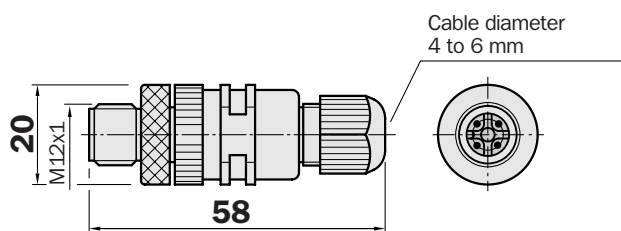
Female connector M 12, 4-pin, right angle

Type	Part no.	Contacts
DOS-1204-W	6 007 303	4



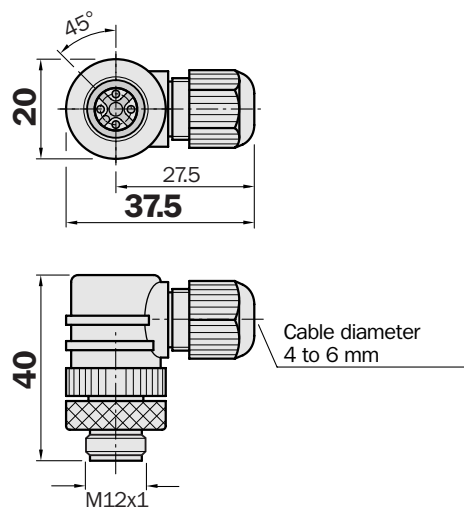
Male connector M 12, 4-pin, straight

Type	Part no.
STE-1204-G	6 009 932



Male connector M 12, 4-pin, right angle

Type	Part no.
STE-1204-W	6 022 084

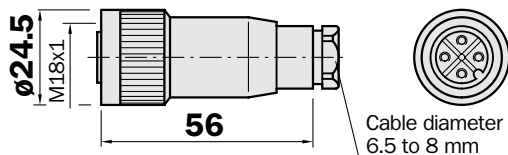


Dimensional drawings and order information

SENSICK screw-in system M 18, 4-pin, enclosure rating IP 65

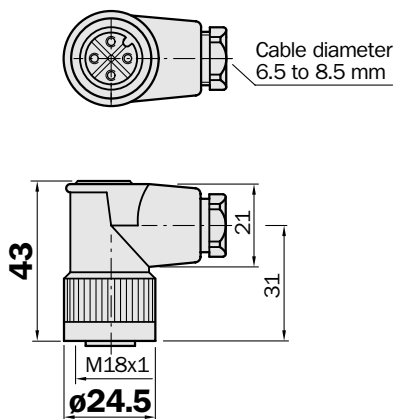
Female connector M18, 4-pin, straight

Type	Part no.
DOS-1804-G	6 009 436



Female connector M 18, 4-pin, right angle

Type	Part no.
DOS-1804-W	6 009 437



SENSICK rectangular plug-in system, Q 6, 6-pin, enclosure rating IP 65

Female connectors, 6-pin, DC-coding

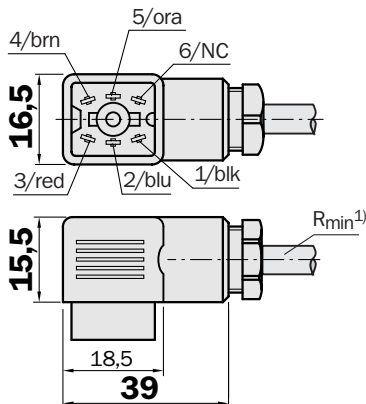
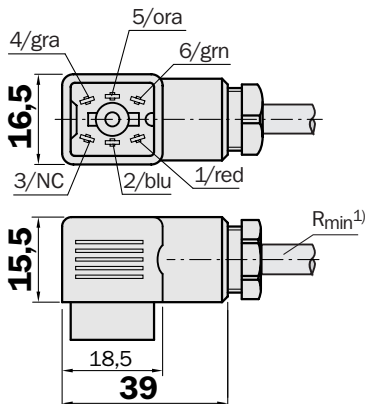
Cable  $\phi$  5 mm, 5 x 0.25 mm<sup>2</sup>, sheath PVC

Type	Part no.	Cable length
DOS-1306-W	6 006 710	–
DOL-1306-02M	2 009 477	2 m
DOL-1306-03M	2 009 478	3 m
DOL-1306-05M5	2 009 479	5,5 m
DOL-1306-10M	2 009 480	10 m

Female connectors, 6-pin, AC/UC-coding

Cable  $\phi$  6.8 mm, 5 x 0.5 mm<sup>2</sup>, sheath PVC

Type	Part no.	Cable length
DOS-1406-W	6 006 685	–
DOL-1406-02M	2 009 116	2 m
DOL-1406-03M	2 009 117	3 m
DOL-1406-05M5	2 009 118	5,5 m
DOL-1406-10M	2 009 119	10 m



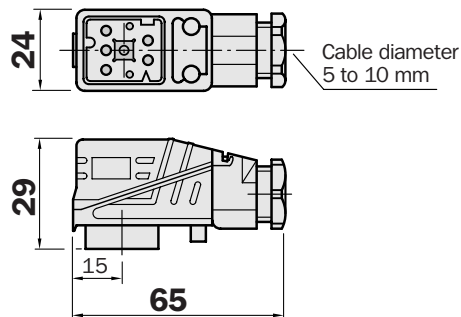
<sup>1)</sup> Minimum bend radius in dynamic use  
 $R_{min} = 20 \times \text{cable diameter}$

Dimensional drawings and order information

SENSICK rectangular plug-in system, Q 7, 7-pin, enclosure rating IP 65

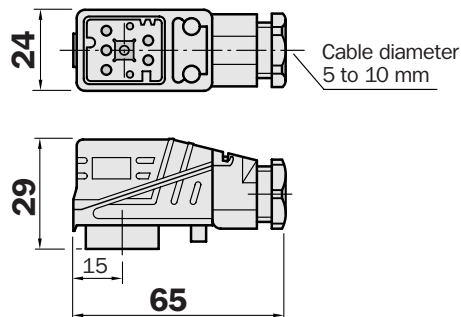
Female connector, 7-pin, DC-coding

Type	Part no.
DOS-2107-W	6 006 823



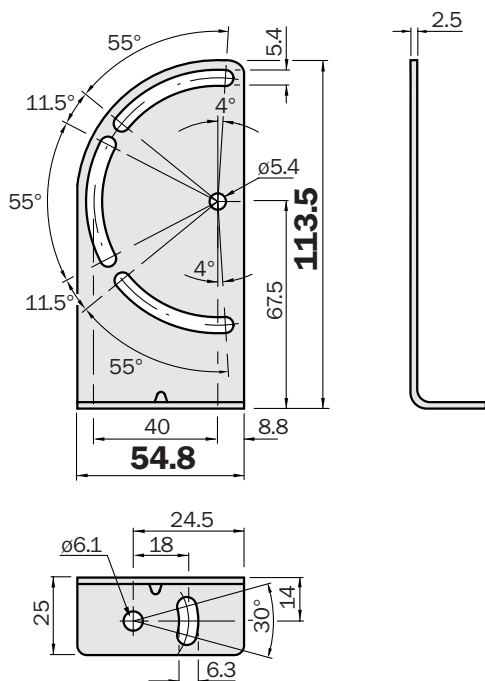
Female connector, 7-pin, AC/UC-coding

Type	Part no.
DOS-2207-W	6 006 821



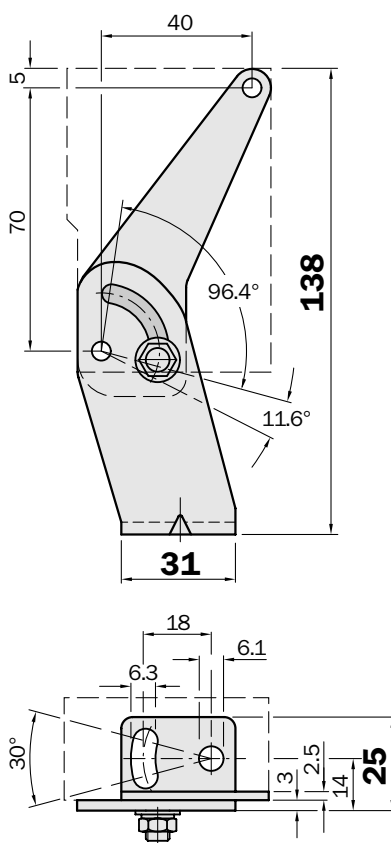
Mounting bracket for W 27-2

Type	Part no.
BEF-WN-W23	2 019 085

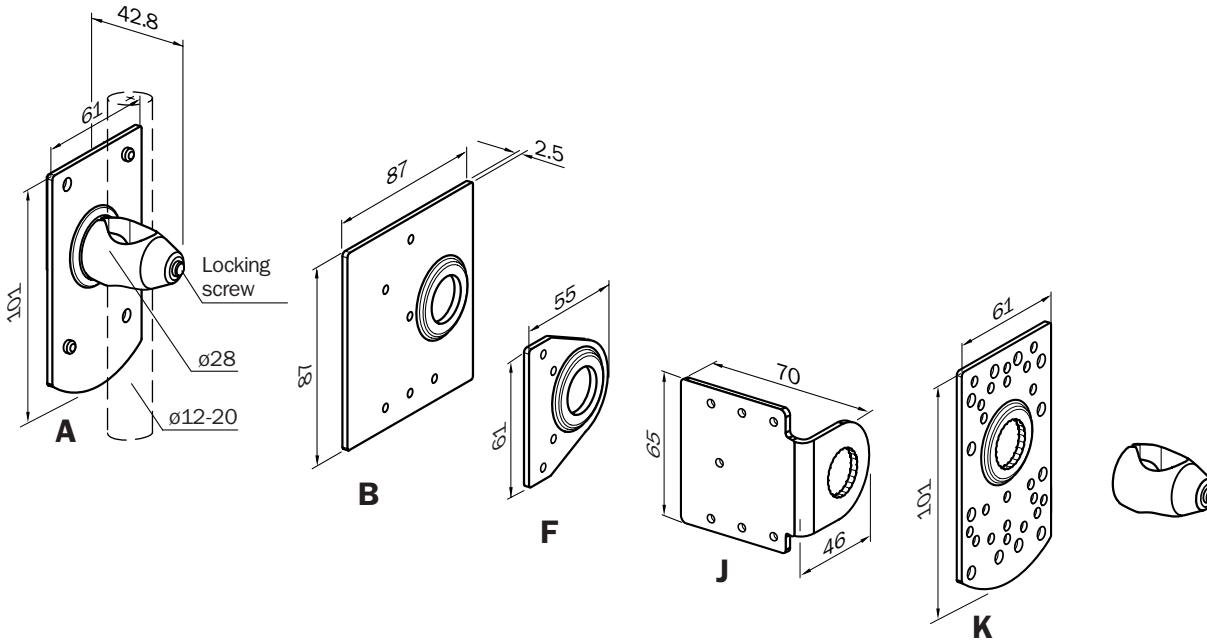


Mounting bracket for W 27-2

Type	Part no.
BEF-WN-W27	2 009 122



## Universal bar clamps for sensors and reflectors



Mounting plates	Type	Part no.	for device/reflector type
<b>A</b>	BEF-KHS-A01	2 022 458 <sup>1)2)</sup>	W 23, W 27-2
<b>B</b>	BEF-KHS-B01	2 022 459 <sup>1)2)</sup>	P 250, PL 30 A, PL 40 A, PL 50 A, PL 80 A, C 110
<b>F</b>	BEF-KHS-F01	2 022 463 <sup>1)2)</sup>	W 260, PL 20 A, P 250
<b>J</b>	BEF-KHS-J01	2 022 719 <sup>1)2)</sup>	PL 20 A, PL 40 A, PL 50 A, P 250, C 110
<b>K</b>	BEF-KHS-K01	2 022 718 <sup>1)</sup>	W 11, W 12-2, W 12L-2, W 14, W 18-2, W 23, W 24-2, W 27-2, W 30, W 32, W 34, W 36, KT 2, KT 5, KT 10, CS, LUT 3, DS 60, PL 20 A, PL 30 A, PL 40 A, PL 50 A, PL 80 A, P 250, C 110
	BEF-KHS-KH1	2 022 726	Clamp bracket rod mounting without attachment plate and mounting material

<sup>1)</sup> The order no. contains pole bracket and mounting material.

<sup>2)</sup> Mounting plate does not contain threads; the sensor/reflector is mounted from the sensor-/reflector side with self-cutting screws.

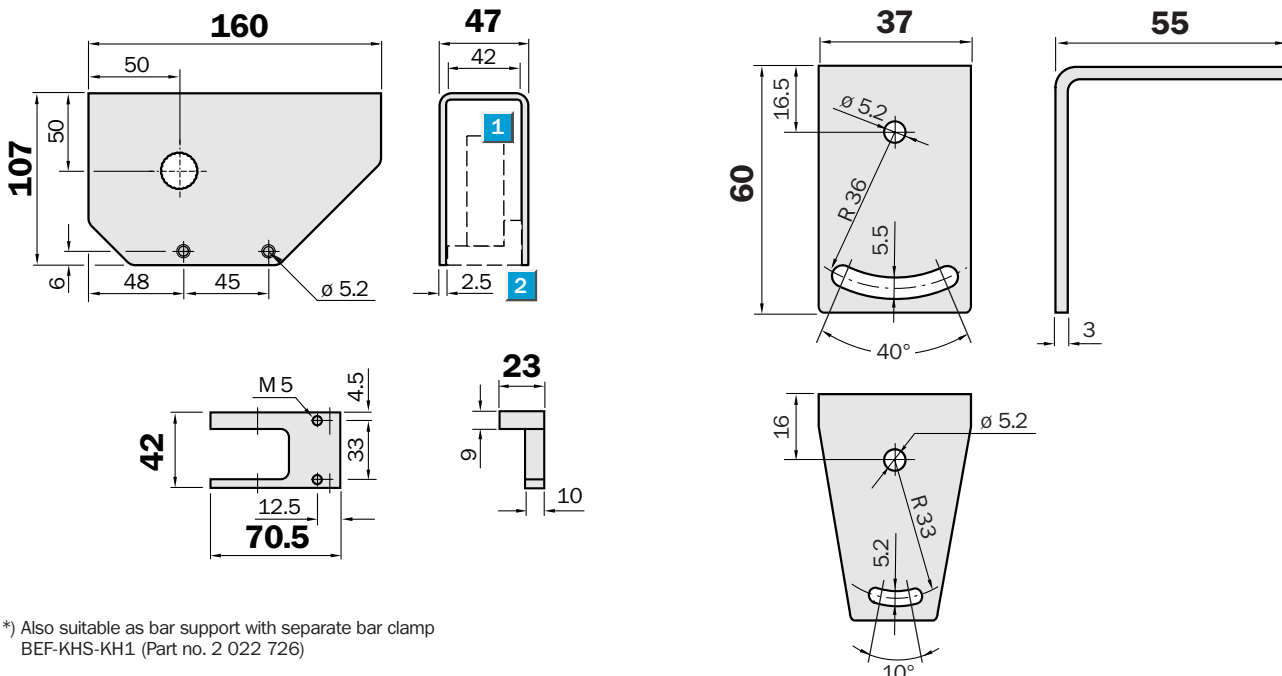
## Special accessories

### Weather protection hood for W 23, W 24-2, W 27-2, W 34, W 260 \*)

Type	Part no.	1	2
OBW-KHS-M01	2 023 240	Sensor	Clamp with mounting material included with delivery

### Mounting bracket for weather protection hood OBW-KHS-M01

Type	Part no.
BEF-WN-OBW	2 023 251



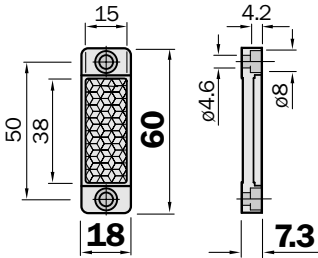
\*) Also suitable as bar support with separate bar clamp BEF-KHS-KH1 (Part no. 2 022 726)

Dimensional drawings and order information

Plastic design for temperatures up to 65 °C

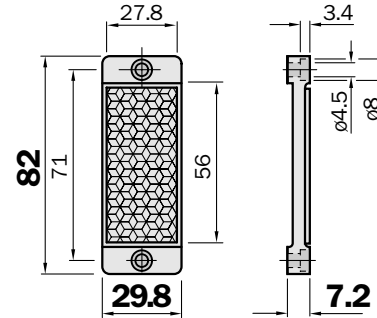
Reflector 20 x 40 mm

Type	Part no.
PL 20 A	1 012 719



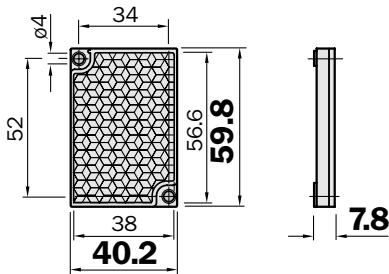
Reflector 30 x 50 mm

Type	Part no.
PL 30 A	1 002 314



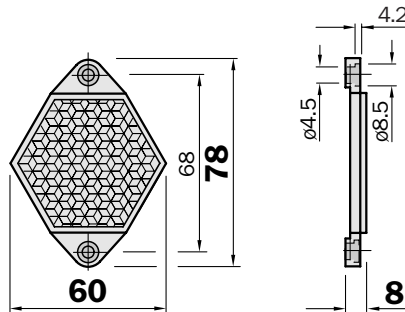
Reflector 40 x 60 mm

self-adhesive	
Type	Part no.
PL 40 A	1 012 720



Reflector, 6-sided

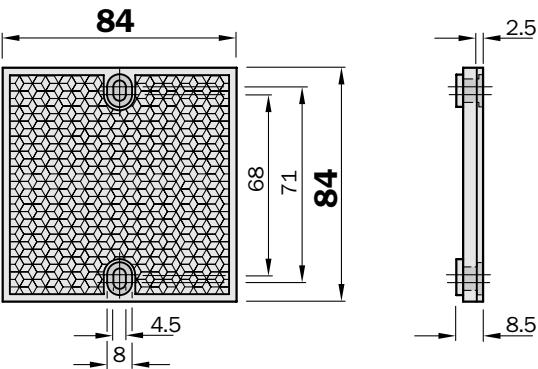
width across flats 48 mm	
Type	Part no.
PL 50 A	1 000 132



Also available with heating:  
 Continuous heating: PL 50HK,  
 part no. 1 011 545  
 Regulated heating: PL 50HS,  
 part no. 1 009 871

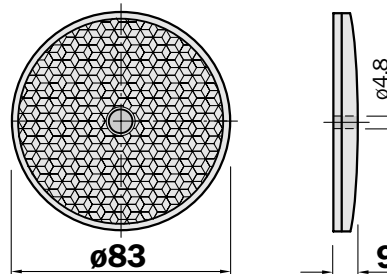
Reflector 80 x 80 mm

Type	Part no.
PL 80 A	1 003 865



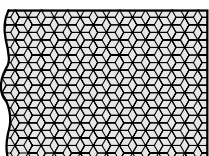
Reflector ø 83 mm, centre hole mounting

Type	Part no.
C 110	5 304 549



Reflective tape

Type	Part no.	
REF-DG-K	4 019 634	Cut to size
REF-DG	5 304 334	Sheet 749 x 914 mm



## AS-i Clip

## Technical data

Dimensions	48 x 34 x 14 mm
Current	Min. 5 mA/max. 120 mA
Voltage	Max. 50 V
Cable cross-section	0.24 mm <sup>2</sup> /0.35 m <sup>2</sup>
Enclosure rating	IP 52
Ambient temperature	Operation + 10 ... + 55 °C
	Storage - 25 ... + 75 °C

## Order information

Type	Part no.
ASI-AD	2 016 755

**Additional AS-i system components for standard sensors and sensors with integrated AS-i chip on request.**

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