

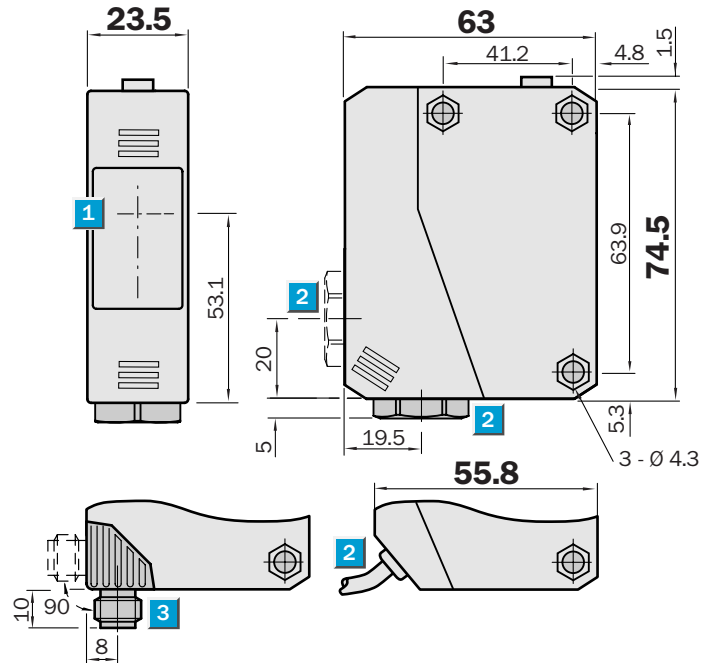


Scanning range
45 m

Through-beam photoelectric switches

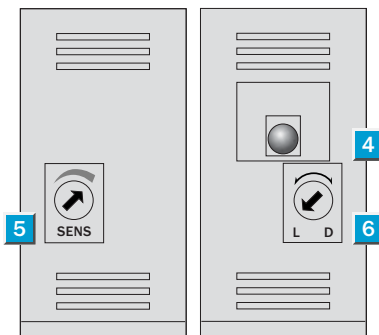
- Red light
- Terminal chamber or cable connection
- M12 plug rotatable by 90°
- Mounting brackets (1.4301) included with delivery

Dimensional drawing



Adjustments possible

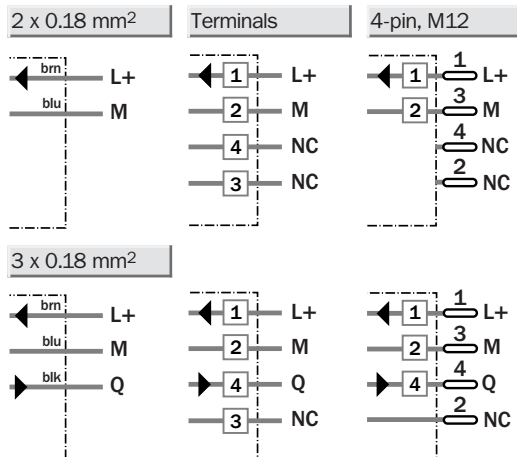
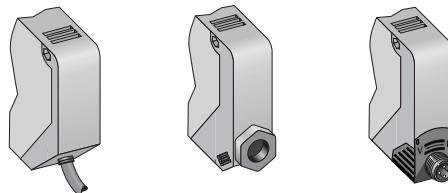
WS280-D132	WE280-P132	WE280-N132
WS280-D230	WE280-P230	WE280-N230
WS280-D430	WE280-P430	WE280-N430



- 1 Optical axis – sender and receiver
- 2 Cable entry gland 1/2" PF for cable diameter 6 to 10 mm or 3-core cable Ø 3.8 mm
- 3 Plug M12, 4-pin, rotatable by 90°
- 4 Signal strength indicator
- 5 Sensitivity adjustment
- 6 Light/dark rotary switch
L = light-switching,
D = dark-switching

Connection type

WS/WE280-P132	WS/WE280-P230	WS/WE280-P430
WS/WE280-N132	WS/WE280-N230	WS/WE280-N430



Accessories

Cables and connectors

Mounting systems *)

*) Mounting brackets included with delivery



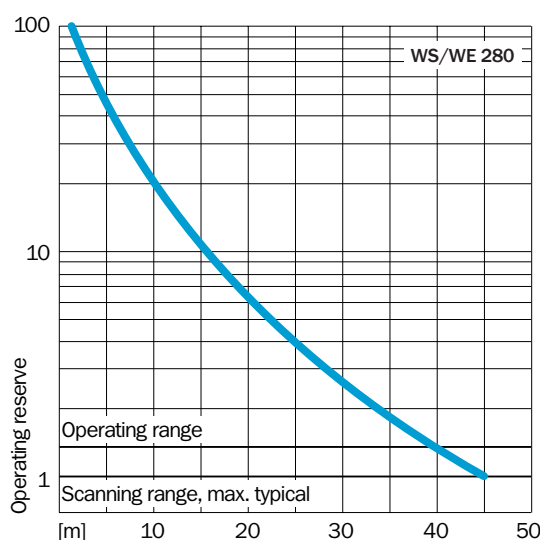
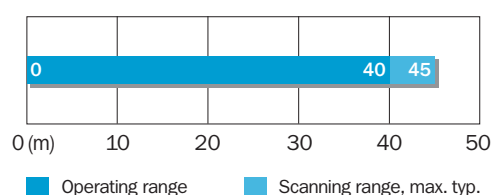
Technical data		WS/WE 280-	P 132	P 230	P 430	N 132	N 230	N 430				
Scanning range , max. typ.	45 m											
Operating range	40 m											
Light source ¹⁾ , light type	LED, red light											
Light spot diameter	Approx. 1 m at 40 m											
Angle of dispersion, sender	Approx. 1.4°											
Angle of reception, receiver	Approx. 6°											
Supply voltage V_S	10 ... 30 V DC ²⁾											
Residual ripple ³⁾	$\leq 5 V_{PP}$											
Current consumption ⁴⁾ sender	≤ 35 mA											
receiver	≤ 35 mA											
Switching outputs	PNP, open collector: Q											
	NPN, open collector: Q											
Output current I_A max.	100 mA											
Light receiver, switching mode	Light-/dark-switching by rotary switch											
Response time ⁵⁾	≤ 0.5 ms											
Max. switching frequency ⁶⁾	1000/s											
Connection types	Cable ⁷⁾ , 2 m											
	Terminal chamber											
	M12 plug, 4-pin											
VDE protection class	⚡ (to VDE 0106)											
Circuit protection ⁸⁾	A, B, C, D											
Enclosure rating	IP 66											
Ambient temperature	Operation $-25^\circ\text{C} \dots +55^\circ\text{C}$											
	Storage $-40^\circ\text{C} \dots +70^\circ\text{C}$											
Weight	Approx. 150 g											
Housing material	Housing: ABS; optics: PMMA											

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

- ⁸⁾ A = V_S connections reverse-polarity protected
 B = Inputs/outputs reverse-polarity protected
 C = Interference pulse suppression
 D = Outputs overcurrent and short-circuit protected

Operating range and operating reserve



Order information

Type	Order no.
WS/WE280-P132	6 028 290
WS/WE280-P230	6 028 288
WS/WE280-P430	6 028 293
WS/WE280-N132	6 028 292
WS/WE280-N230	6 028 289
WS/WE280-N430	6 028 294

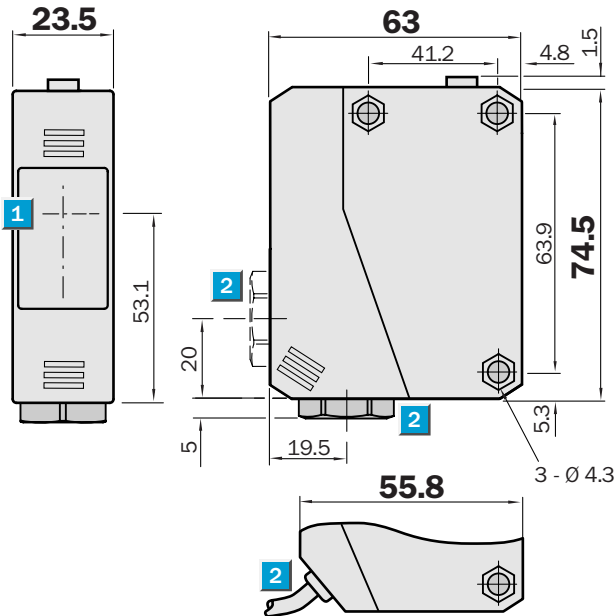


Scanning range
45 m

Through-beam photoelectric switches

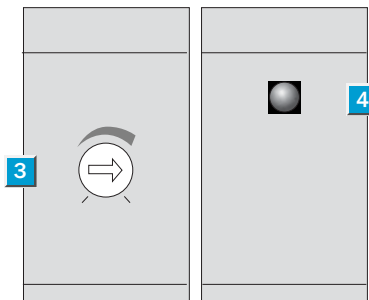
- Red light
- Terminal chamber or cable connection
- Mounting brackets (1.4301) included with delivery
- CE generic emission standard EN 61000-6-3 ("Residential and Commercial Areas")

Dimensional drawing



Adjustments possible

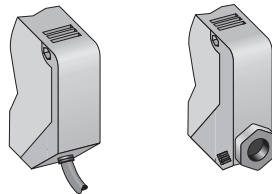
WS280-U132	WE280-S132
WS280-U230	WE280-S230



- 1 Optical axis – sender and receiver
- 2 Cable entry gland 1/2" PF for cable diameter 6 to 10 mm or 5-core cable Ø 6.3 mm
- 3 Sensitivity adjustment
- 4 Signal strength indicator

Connection type

WS/WE280-S132	WS/WE280-S230
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2 x 0.76 mm²

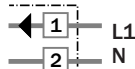
Terminals

Accessories

Cables and connectors
Mounting systems *)

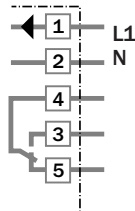
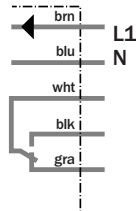
*) Mounting brackets included with delivery

Sender



5 x 0.76 mm²

Receiver



Technical data		WS/WE 280-	S 132	S 230								
Scanning range, max. typ.	45 m											
Operating range	40 m											
Light source ¹⁾, light type	LED, red light											
Light spot diameter	Approx. 1 m at 40 m											
Angle of dispersion, sender	Approx. 1.4°											
Angle of reception, receiver	Approx. 6°											
Supply voltage V_S ²⁾	24 ... 240 V DC/24 ... 240 V AC											
Current consumption	sender	≤ 3.5 VA										
	receiver	≤ 3.5 VA										
Switching outputs	Relay 1 x u, galv. separated											
Max. switching current ³⁾	3 A/240 V AC; 3 A/30 V DC											
Light receiver	Light-switching											
Response time	≤ 20 ms											
Max. switching frequency ⁴⁾	25/s											
Connection types	Cable ⁵⁾ , 2 m											
	Terminal chamber											
VDE protection class ⁶⁾	☐											
Circuit protection ⁷⁾	A, C											
Enclosure rating	IP 66											
Ambient temperature	Operation -25 °C ... +55 °C											
	Storage -40 °C ... +70 °C											
Weight	Approx. 150 g											
Housing material	Housing: ABS; optics: PMMA											

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

²⁾ ± 10 %

³⁾ Provide suitable spark suppression for
inductive and capacitive loads

⁴⁾ With light/dark ratio 1:1

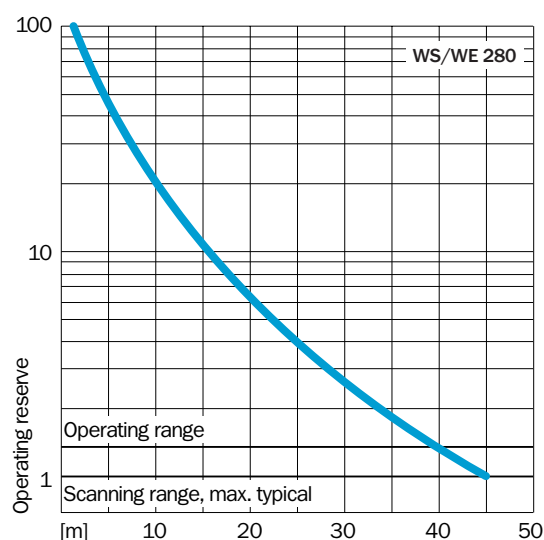
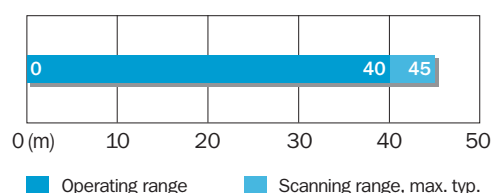
⁵⁾ Do not bend below 0 °C

⁶⁾ Reference voltage 250 V UC

⁷⁾ A = V_S connections reverse-polarity
protected

C = Interference pulse suppression

Operating range and operating reserve



Order information

Type	Order no.
WS/WE280-S132	6 027 490
WS/WE280-S230	6 027 488