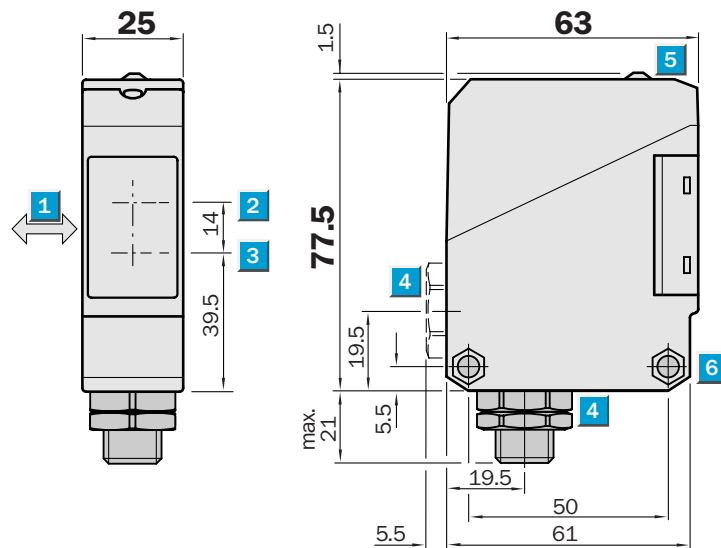


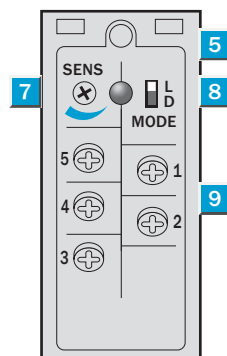
- Reliable detection of dark objects even against light backgrounds
- Scanning distance steplessly adjustable
- Terminal chamber or M 12 plug, 4 pin or 5 pin
- Test input
- VMA contamination signaling output

Dimension illustration



Setting options

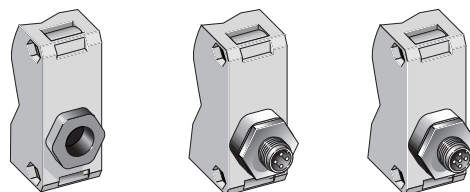
WT 260-P 260
WT 260-P 460
WT 260-P 560
WT 260-N 260



- 1 Standard direction of material being scanned
- 2 Middle optic axis, receiver
- 3 Middle optic axis, sender
- 4 Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear; or M 12 equipment plug, bottom
- 5 LED signal strength indicator, red
- 6 Through hole Ø 5.2 mm on both sides for M 5 hex nut
- 7 Scanning distance control
- 8 Light/dark rotary switch
L.ON = light-switching, D.ON = dark-switching
- 9 Terminals

Connection type

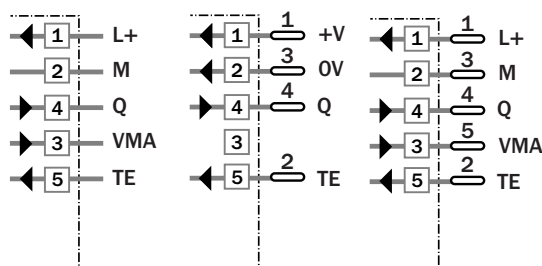
WT 260-P 260	WT 260-P 460	WT 260-P 560
WT 260-N 260		



Terminals

4 pin, M 12

5 pin, M 12



Accessories

Mounting bracket, included
M 12 cable receptacle



Technische Daten		WT 260-	P 260	P 460	P 560	N 260						
Scanning distance	Max.: 0 ... 380 mm, adjustable ¹⁾											
	Min.: 75 ... 160 mm, adjustable ¹⁾											
Sensitivity	Adjustable, potentiometer 270°											
Light source ²⁾	LED, infrared											
Light spot diameter	Approx. 17 mm at a distance of 300 mm											
Aperture angle sender	Approx. 1,5°											
Supply voltage V_s	10 to 30 VDC ³⁾											
Ripple ⁴⁾	$\leq 5 V_{pp}$											
Current consumption ⁵⁾	$\leq 35 \text{ mA}$											
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 ⁶⁾	$\leq 2 \text{ ms}$											
Switching frequency max. ⁷⁾	100/s											
Contamination signaling output VMA ⁸⁾	100 mA, static											
Test input »TE« sender off	PNP: TE to + V_s											
	NPN: TE to 0 V											
Type of connection	Terminal chamber											
	M 12 equipment plug, 4 pin											
	M 12 equipment plug, 5 pin											
VDE protection class ⁹⁾	☐											
Circuit protection ¹⁰⁾	A, B, C, D											
Enclosure rating	IP 66											
Ambient temperature	Operating -25°C to $+55^\circ\text{C}$											
	Storage -40°C to $+70^\circ\text{C}$											
Weight	Approx. 120 g											
Material	Housing: ABS; Optic: PC											

¹⁾ Object with 90% reflectance (referred to standard white DIN 5033)

²⁾ Average service life 100 000 h at $T_U = +25^\circ\text{C}$

³⁾ Limit values

⁴⁾ Must be within V_s tolerances

⁵⁾ Without load

⁶⁾ With resistive load

⁷⁾ With light/dark ratio 1:1

⁸⁾ Operating reserve $< 50\%$

⁹⁾ Withstand voltage 50 V DC

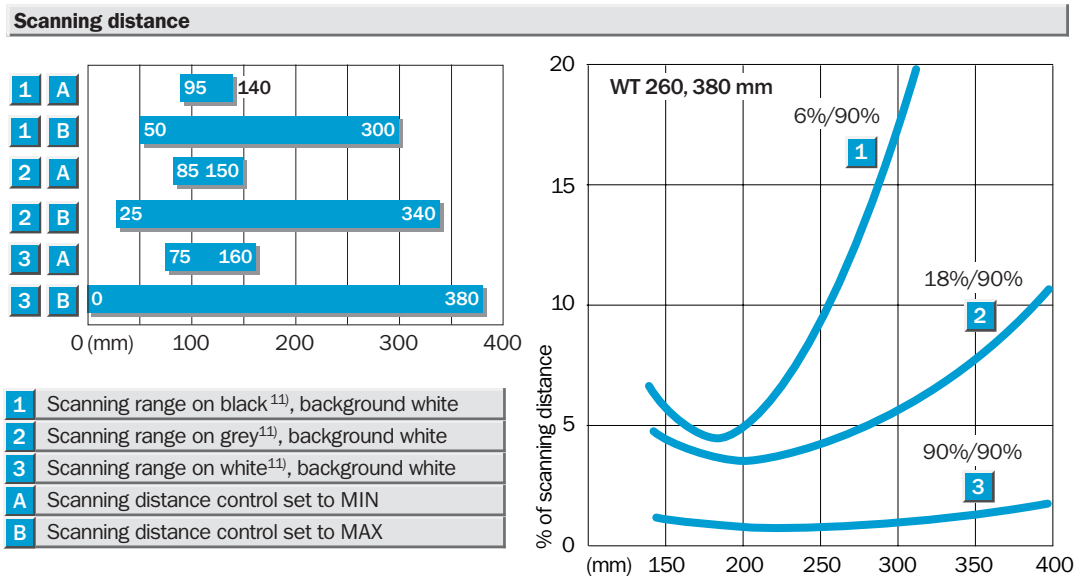
¹⁰⁾ A = V_s connections reverse-polarity protected

B = Inputs/outputs reverse-polarity protected

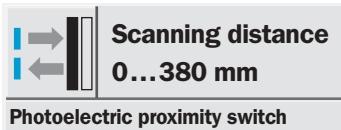
C = Interference suppression

D = Outputs overcurrent and short-circuit protected

¹¹⁾ Black = 6 % reflectance
Grey = 18 % reflectance
White = 90 % reflectance

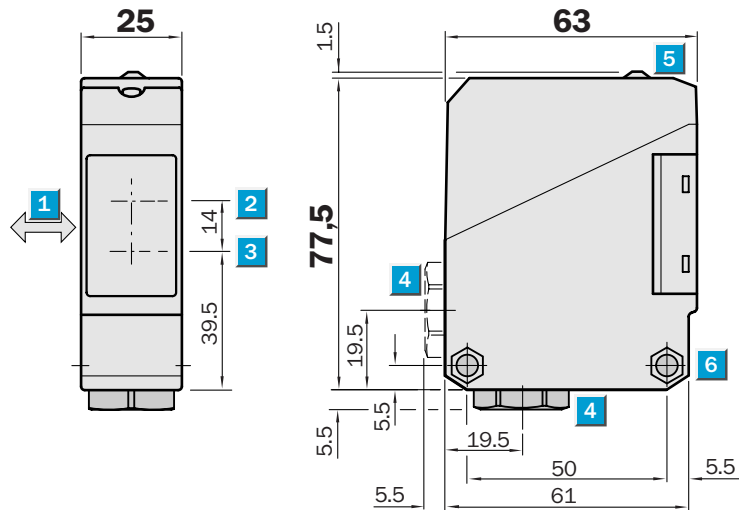


Ordering information	
Type	Order no.
WT 260-P 260	6 009 471
WT 260-P 460	1 011 540
WT 260-P 560	1 011 541
WT 260-N 260	6 009 470



- Reliable detection of dark objects even against light backgrounds
- Scanning distance steplessly adjustable
- Terminal chamber
- Universal voltage supply, relay output 1 x a, Timer optional

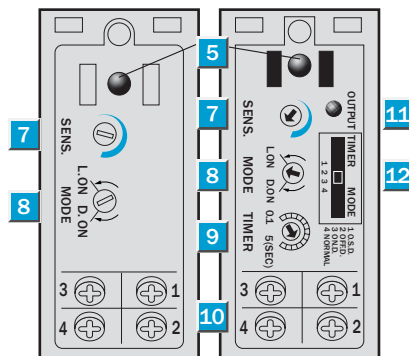
Dimension illustration



Setting options

WT 260-S 260

WT 260-R 260



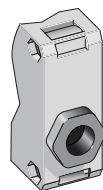
- 1 Standard direction of material being scanned
- 2 Middle of optic axis, receiver
- 3 Middle of optic axis, sender
- 4 Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear;
- 5 LED signal strength indicator, red
- 6 Through hole Ø 5.2 mm on both sides for M 5 hex nut
- 7 Scanning distance control
- 8 Light/dark rotary switch
L.ON = light-switching, D.ON = dark-switching
- 9 Time range control
- 10 Terminals
- 11 Red LED status indicator; switching output active
- 12 Time delay selector switch
O.S.D. = One Shot
OFF.D. = OFF delay
ON.D. = ON delay
Normal = No delay



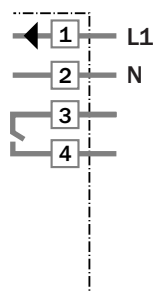
Connection type

WT 260-S 260

WT 260-R 260

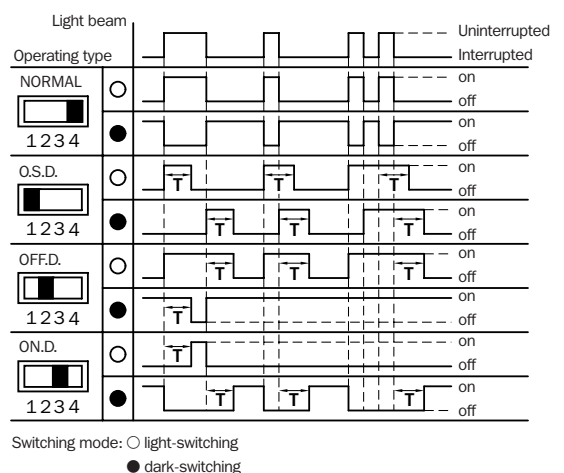


Terminals



Time delays

t = 0.1–5 s



Accessoires

- Mounting bracket, included
- M 12 cable receptacle

Technical data		WT 260-	S 260	R 260								
Scanning distance	max.: 0 ... 380 mm, adjustable ¹⁾											
	min.: 75 ... 160 mm, adjustable ¹⁾											
Sensitivity	Adjustable, potentiometer 270°											
Light source ²⁾	LED, infrared											
Light spot diameter	Approx. 17 mm at a distance of 300 mm											
Aperture angle sender	Approx. 1,5°											
Supply voltage V_s ³⁾	12 to 240 V DC											
	24 to 240 V UC											
Current consumption	≤ 5 VA											
Switching outputs	Relay, SP, electrically isolated											
Output current I_A max. ⁴⁾	3 A/240 V AC; 3 A/30 V DC											
Light receiver, switching mode	Light/dark-switching by rotary switch											
Response time	≤ 20 ms											
Switching frequency max. ⁵⁾	25/s											
Time delay	With LED display: switching output active											
Switch position:	"1 O.S.D." "One shot"											
	"2 OFF.D." OFF delay											
	"3 ON.D." ON delay											
	"4 Normal" No delay											
Delay	Adjustable, 0.1 to 5 s; potentiometer 270°											
Type of connection	Terminal chamber											
VDE protection class ⁶⁾	☐											
Circuit protection ⁷⁾	A, C											
Enclosure rating	IP 66											
Ambient temperature	Operating -25 °C to +55 °C											
	Storage -40 °C to +70 °C											
Weight	Approx. 120 g											
Material	Housing: ABS; Optic: PC											

¹⁾ Object with 90% reflectance (referred to standard white DIN 5033)

²⁾ Average service life 100 000 h at $T_U = +25$ °C

³⁾ ± 10 %

⁴⁾ Provide suitable spark suppression for inductive or capacitive loads

⁵⁾ With light/dark ratio 1:1

⁶⁾ Withstand voltage 250 V UC

⁷⁾ A = V_s connections reverse-polarity protected

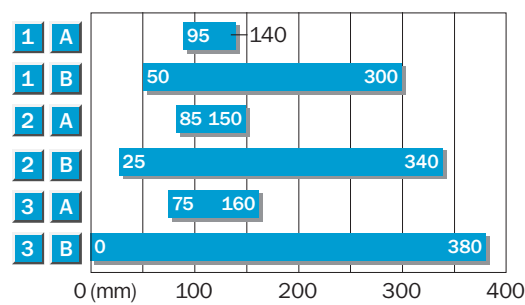
C = Interference suppression

⁸⁾ Black = 6 % reflectance

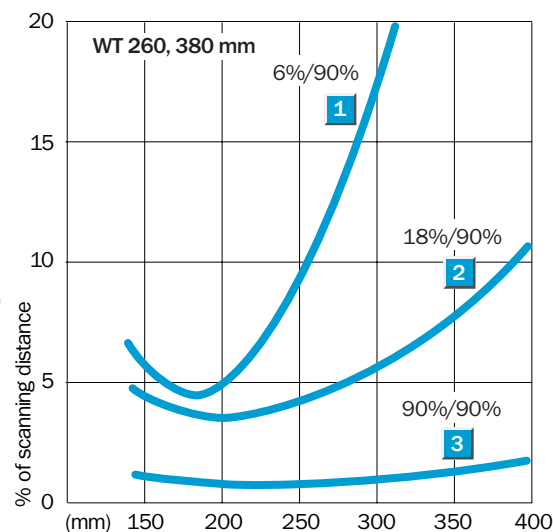
Grey = 18 % reflectance

White = 90 % reflectance

Scanning distance



- 1 Scanning range on black ⁸⁾, background white
- 2 Scanning range on grey ⁸⁾, background white
- 3 Scanning range on white ⁸⁾, background white
- A Scanning distance control set to MIN
- B Scanning distance control set to MAX



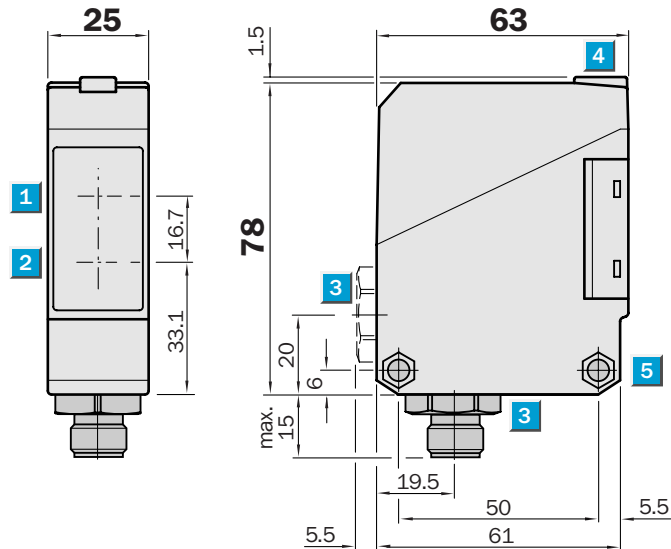
Ordering information

Type	Order no.
WT 260-S 260	6 009 473
WT 260-R 260	6 009 472

	Scanning distance
	10...3200 mm
Photoelectric proximity switch	

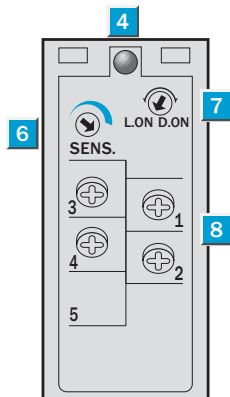
- Adjustable sensitivity
- Terminal chamber or plug
M 12, 4 pin
- Test input

Dimension illustration



Setting options

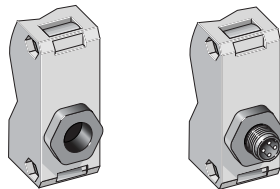
WT 260-F 280
WT 260-F 480
WT 260-E 280
WT 260-E 480



- 1 Middle of optic axis, receiver
- 2 Middle of optic axis, sender
- 3 Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear; or M 12 equipment plug, bottom
- 4 LED signal strength indicator, yellow, switching output active
- 5 Through hole Ø 5.2 mm on both sides for M 5 hex nut
- 6 Sensitivity control
- 7 Light/dark rotary switch
L.ON = light-switching, D.ON = dark-switching
- 8 Terminals

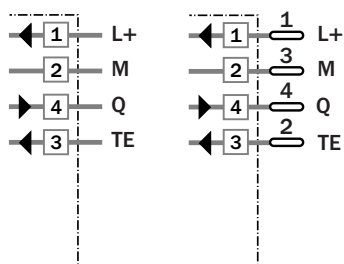
Connection Type

WT 260-F 280	WT 260-F 480
WT 260-E 280	WT 260-E 480



Terminals

4 pin, M 12



Accessories

Mounting bracket, included
M 12 cable receptacle



Technical data		WT 260-	F 280	F 480	E 280	E 480						
Scanning distance, typ. max.	10 to 3200 mm, adjustable ¹⁾											
Operating distance	15 to 2500 mm, adjustable ¹⁾											
Sensitivity	Adjustable, potentiometer 270°											
Light source ²⁾	LED, infrared											
Light spot diameter	Approx. 80 mm at a distance of 2500 mm											
Aperture angle sender	Approx. 1.8°											
Supply voltage V_s	10 to 30 VDC ³⁾											
Ripple ⁴⁾	≤ 5 V _{pp}											
Current consumption ⁵⁾	≤ 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 ⁶⁾	≤ 5.0 ms											
Switching frequency max. ⁷⁾	100/s											
Test input »TE« sender off	PNP: TE to + V _s											
	NPN: TE to 0 V											
Type of connection	Terminal chamber											
	M 12 equipment plug, 4 pin											
VDE protection class ⁸⁾	□											
Circuit protection ⁹⁾	A, B, C, D											
Enclosure rating	IP 67											
Ambient temperature	Operating -25 °C to +55 °C											
	Storage -40 °C to +70 °C											
Weight	Approx. 120 g											
Material	Housing: ABS; Optic: PC											

¹⁾ Object with 90% reflectance (referred to standard white DIN 5033)

²⁾ Average service life 100 000 h at T_U = +25 °C

³⁾ Limit values

⁴⁾ Must be within V_s tolerances

⁵⁾ Without load

⁶⁾ With resistive load

⁷⁾ With light/dark ratio 1:1

⁸⁾ Withstand voltage 50 V DC

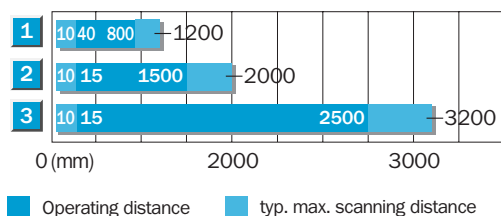
⁹⁾ A = V_s connections reverse-polarity protected

B = Inputs/outputs reverse-polarity protected

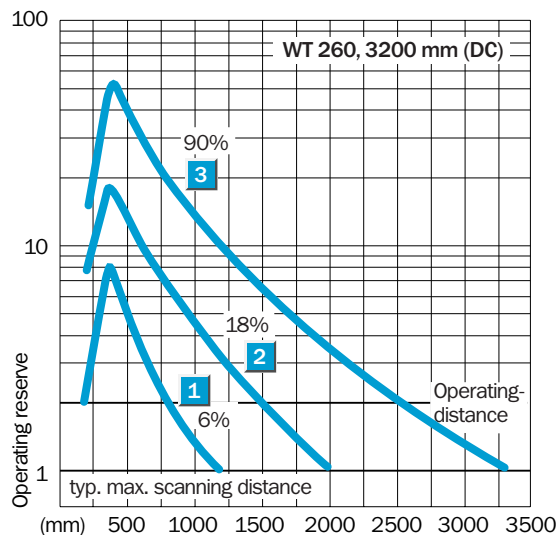
C = Interference suppression

D = Outputs overcurrent and short-circuit protected

Scanning distance



- 1 Scanning range on black, 6% reflectance
- 2 Scanning range on grey, 18% reflectance
- 3 Scanning range on white, 90% reflectance



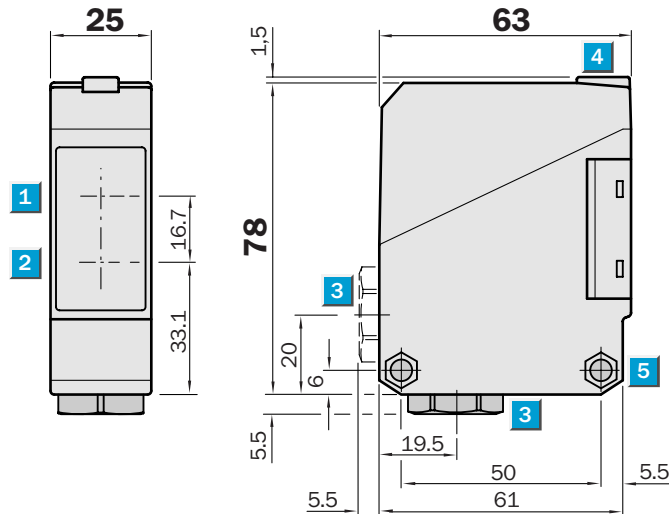
Ordering information

Type	Order no.
WT 260-F 280	6 020 982
WT 260-F 480	6 020 983
WT 260-E 280	6 020 984
WT 260-E 480	6 021 816

	Scanning distance 10...3500 mm
Photoelectric proximity switch	

- Sensitivity, adjustable
- Terminal chamber
- Universal voltage supply, Relay output, SPDT, timer optional, t_{ON} and t_{OFF} can be connected separately
- Enclosure rating IP 67
- CE noise radiation EN 50081-1 ("Household standard")

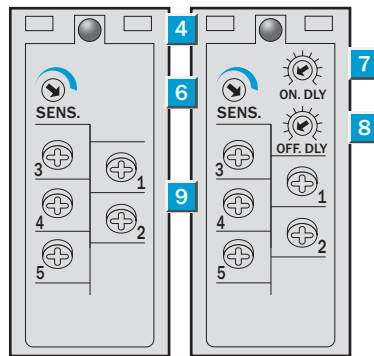
Dimension illustration



Setting options

WT 260-S 280

WT 260-R 280



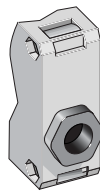
- 1 Middle of optic axis, receiver
- 2 Middle of optic axis, sender
- 3 Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear
- 4 LED signal strength indicator, red
- 5 Through hole $\varnothing$ 5.2 mm on both sides for M 5 hex nut
- 6 Sensitivity control
- 7 Time control ON delay t_{ON}
- 8 Time control OFF delay t_{OFF}
- 9 Terminals

Connection type

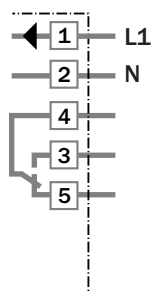
WT 260-S 280

WT 260-R 280

Time delays

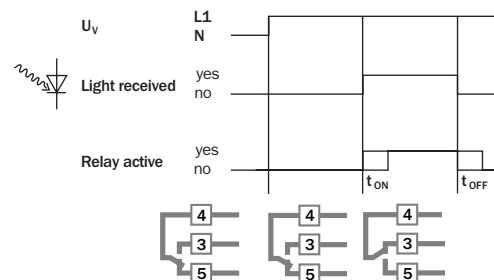
 $t = 0.1-10 \text{ s}$


Terminals



Accessories

- Mounting bracket, included
- M 12 cable receptacle



Technical data		WT 260-	S 280	R 280									
Scanning distance, typ. max.	10 to 3500 mm, adjustable ¹⁾												
Operating distance	20 to 3000 mm, adjustable ¹⁾												
Sensitivity	Adjustable, potentiometer 270°												
Light source ²⁾	LED, infrared light												
Light spot diameter	Approx. 95 mm at a distance of 3000 mm												
Aperture angle sender	Approx. 1.7°												
Supply voltage V_s ³⁾	12 to 240 V DC												
	24 to 240 V AC												
Power consumption	≤ 5 VA												
Switching output	Relay, SPDT, electrically isolated												
Switching current I_{max} ⁴⁾	3 A/240 VAC; 3 A/30 VDC												
Light receiver, switching mode	Light-switching												
Response time	≤ 20 ms												
Switching frequency max. ⁵⁾	25/s												
Time delays													
ON delay t_{ON}	0.1 to 10 s, can be connected separately												
OFF delay t_{OFF}	0.1 to 10 s, can be connected separately												
Type of connection	Terminal chamber												
CE noise radiation	Level EN 50081-1 ("Household standard")												
VDE protection class ⁶⁾	□												
Circuit protection ⁷⁾	A, C												
Enclosure rating	IP 67												
Ambient temperature	Operation -25 °C to +55 °C												
	Storage -40 °C to +70 °C												
Weight	Approx. 120 g												
Material	Housing: ABS; Optics: PC												

¹⁾ Object with 90% reflectance (referred to standard white DIN 5033)

²⁾ Average service life 100 000 h at $T_U = +25$ °C

³⁾ ± 10 %

⁴⁾ Provide suitable spark suppression for inductive or capacitive loads

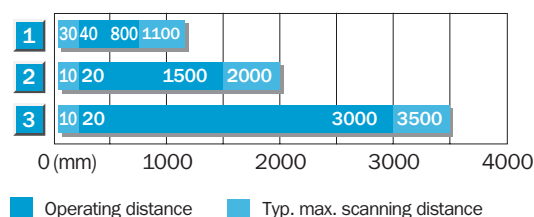
⁵⁾ With light/dark ratio 1:1

⁶⁾ Withstand voltage 250 V UC

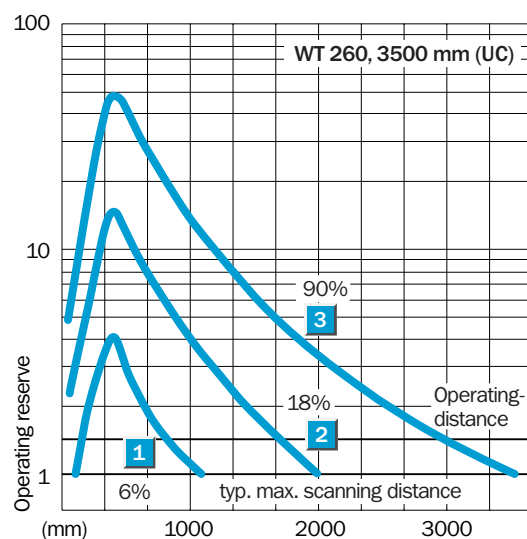
⁷⁾ A = V_s connections reverse-polarity protected

C = Interference suppression

Scanning distance



- 1 Scanning range on black, 6% reflectance
- 2 Scanning range on grey, 18% reflectance
- 3 Scanning range on white, 90% reflectance



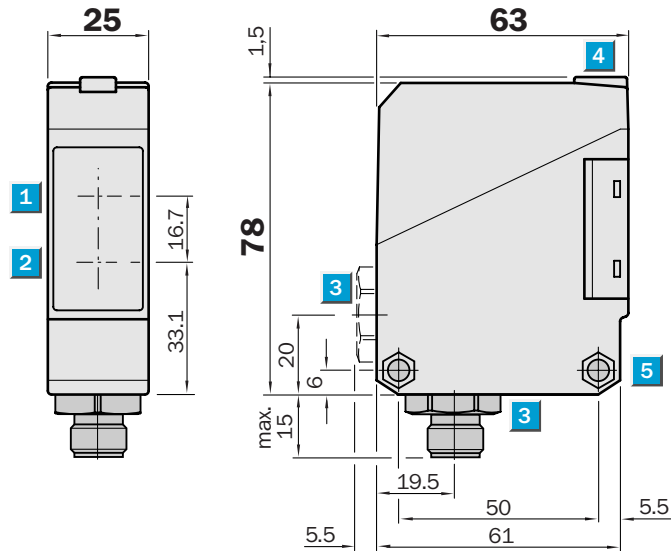
Ordering information

Type	Order no.
WT 260-S 280	6 020 771
WT 260-R 280	6 020 772

	Scanning distance 5...1500 mm
Photoelectric proximity switch	

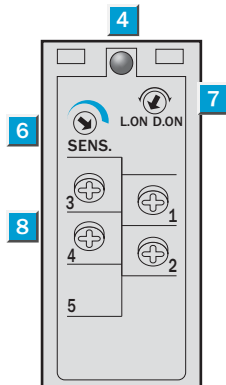
- Sensitivity, adjustable
- Terminal chamber or plug
M 12, 4 pin
- Test input

Dimension illustration



Setting options

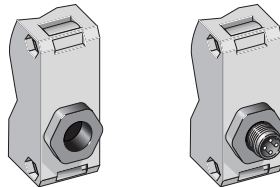
WT 260-F 270
WT 260-F 470
WT 260-E 270
WT 260-E 470



- 1 Middle of optic axis, receiver
- 2 Middle of optic axis, sender
- 3 Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear;
- 4 LED signal strength indicator, yellow, switching output active
- 5 Through hole Ø 5.2 mm on both sides for M 5 hex nut
- 6 Sensitivity control
- 7 Light/dark rotary switch
L.ON = light-switching, D.ON = dark-switching
- 8 Terminals

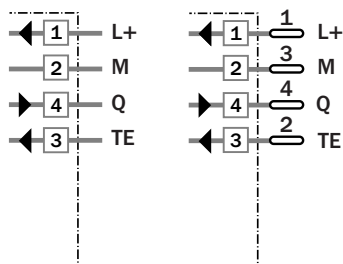
Connection type

WT 260-F 270	WT 260-F 470
WT 260-E 270	WT 260-E 470



Terminals

4 pin, M 12



Accessories

Mounting bracket, included
M 12 cable receptacle

Technical data		WT 260-	F 270	F 470	E 270	E 470						
Scanning distance , typ. max.	15 to 1500 mm, adjustable ¹⁾											
Operating distance	5 to 1000 mm, adjustable ¹⁾											
Sensitivity	Adjustable, potentiometer 270°											
Light source ²⁾	LED, visible red light											
Light spot diameter	Approx. 45 mm at a distance of 1000 mm											
Aperture angle sender	Approx. 2.5°											
Supply voltage V_s	10 to 30 V DC ³⁾											
Ripple ⁴⁾	$\leq 5 V_{PP}$											
Current consumption ⁵⁾	$\leq 35 \text{ mA}$											
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 ⁶⁾	$\leq 1.5 \text{ ms}$											
Switching frequency max. ⁷⁾	333/s											
Test input »TE« sender off	PNP: TE to + V_s											
	NPN: TE to 0 V											
Type of connection	Terminal chamber											
	M 12 equipment plug, 4 pin											
VDE protection class ⁸⁾	□											
Circuit protection ⁹⁾	A, B, C, D											
Enclosure rating	IP 67											
Ambient temperature	Operation -25°C to $+55^\circ\text{C}$											
	Storage -40°C to $+70^\circ\text{C}$											
Weight	Approx. 120 g											
Material	Housing: ABS; Optics: PC											

¹⁾ Object with 90% reflectance (referred to standard white DIN 5033)

²⁾ Average service life 100 000 h at $T_U = +25^\circ\text{C}$

³⁾ Limit values

⁴⁾ Must be within V_s tolerances

⁵⁾ Without load

⁶⁾ With resistive load

⁷⁾ With light/dark ratio 1:1

⁸⁾ Withstand voltage 50 V DC

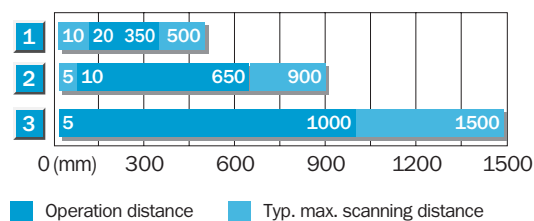
⁹⁾ A = V_s connections reverse-polarity protected

B = Inputs/outputs reverse-polarity protected

C = Interference suppression

D = Outputs overcurrent and short-circuit protected

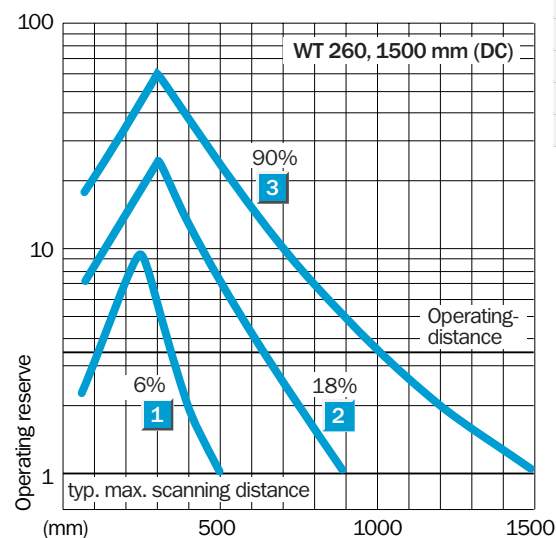
Scanning distance



1 Scanning range on black, 6% reflectance

2 Scanning range on grey, 18% reflectance

3 Scanning range on white, 90% reflectance



Ordering information

Type	Order no.
WT 260-F 270	6 020 979
WT 260-F 470	6 020 980
WT 260-E 270	6 020 981
WT 260-E 470	6 021 815

Technical data		WT 260-	S 270	R 270								
Scanning distance, typ. max.	5 to 1700 mm, adjustable ¹⁾											
Operating distance	5 to 1300 mm, adjustable ¹⁾											
Sensitivity	Adjustable, potentiometer 270°											
Light source ²⁾	LED, visible red light											
Light spot diameter	Approx. 60 mm at a distance of 1300 mm											
Aperture angle sender	Approx. 1.8°											
Supply voltage V_s ³⁾	12 to 240 V DC											
	24 to 240 V AC											
Power consumption	≤ 5 VA											
Switching output	Relay, SPDT, electrically isolated											
Switching current I max. ⁴⁾	3 A/240 V AC; 3 A/30 V DC											
Light receiver, switching mode	Light-switching											
Response time	≤ 20 ms											
Switching frequency max. ⁵⁾	25/s											
Time delay												
ON delay t_{ON}	0.1 to 10 s, can be connected separately											
OFF delay t_{OFF}	0.1 to 10 s, can be connected separately											
Type of connection	Terminal chamber											
CE noise radiation	Level EN 50081-1 ("Household standard")											
VDE protection class ⁶⁾	□											
Circuit protection ⁷⁾	A, C											
Enclosure rating	IP 67											
Ambient temperature	Operation -25 °C to +55 °C											
	Storage -40 °C to +70 °C											
Weight	Approx. 120 g											
Material	Housing: ABS; Optics: PC											

¹⁾ Object with 90% reflectance (referred to standard white DIN 5033)

²⁾ Mittlere Lebensdauer 100.000 h bei $T_U = +25\text{ °C}$

³⁾ ± 10 %

⁴⁾ Provide suitable spark suppression for inductive or capacitive loads

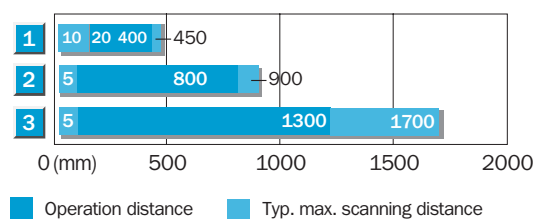
⁵⁾ With light/dark ratio 1:1

⁶⁾ Withstand voltage 250 V UC

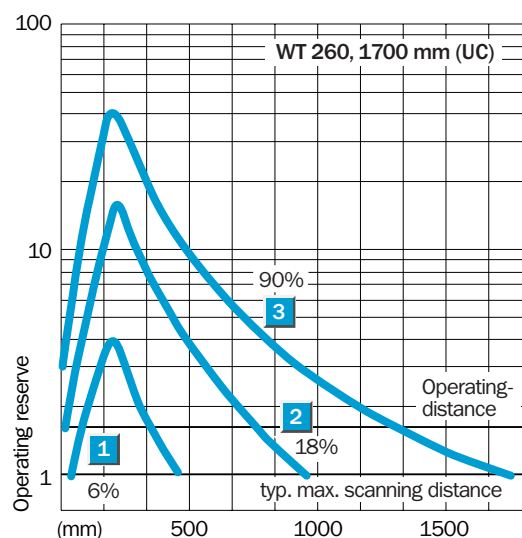
⁷⁾ A = V_s connections reverse-polarity protected

C = Interference suppression

Scanning distance



1	Scanning range on black, 6% reflectance
2	Scanning range on grey, 18% reflectance
3	Scanning range on white, 90% reflectance



Ordering information

Type	Order no.
WT 260-S 270	6 020 769
WT 260-R 270	6 020 770