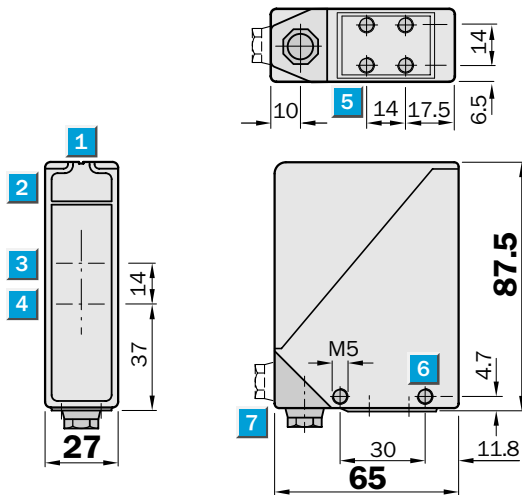

Scanning range
22 m

Photoelectric reflex switches

- Robust metal housing
- High operating reserve in visible red light
- PG cable gland or equipment plug rotatable by 90°
- Front lens heating and selectable time delay, optional

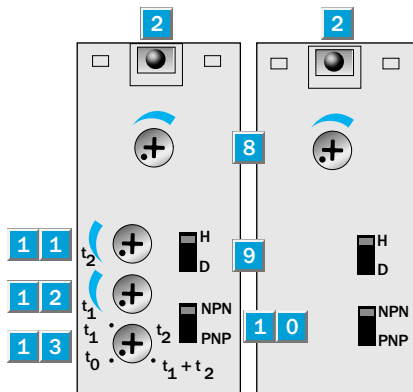
Dimensional drawing



Adjustments possible

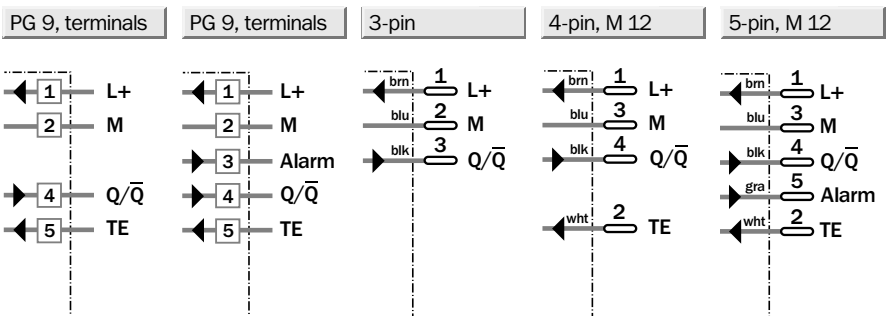
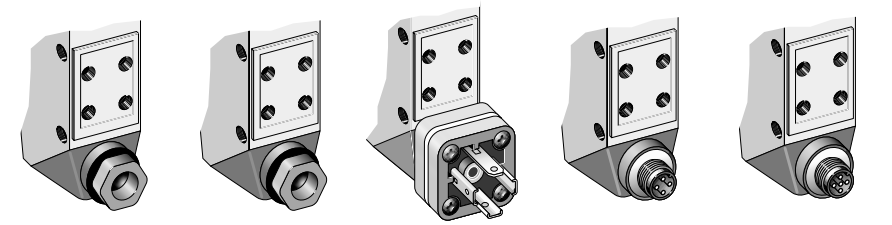
WL 24-2B 240	WL 24-2B 230
WL 24-2B 440	WL 24-2B 333
	WL 24-2B 430
	WL 24-2V 230
	WL 24-2V 530

- 1 Alignment sight
- 2 LED signal strength indicator
- 3 Centre of optical axis, sender
- 4 Centre of optical axis, receiver
- 5 M 5 threaded mounting hole, 6 mm deep
- 6 M 5 threaded mounting hole, through-hole
- 7 PG screw fixing or plug rotatable by 90°
- 8 Sensitivity adjustment
- 9 Light/dark selector
- 1 0 NPN/PNP selector
- 1 1 Time control t_2 = OFF-delay
- 1 2 Time control t_1 = ON-delay
- 1 3 Time delay selector switch



Connection types

WL 24-2B 230	WL 24-2V 230	WL 24-2B 333	WL 24-2B 430	WL 24-2V 530
WL 24-2B 240			WL 24-2B 440	



Accessories	page
Cable receptacles	496
Mounting brackets	510
Reflectors	520
Special accessories	556
Dust shields	
Weather hoods	
Cooling plates	

Technical data		WL 24-2	B 230	B 240	B 333	B 430	B 440	V 230	V 530
Scanning range , max. typical/ on reflector	22 m/on PL 80 A								
Sensitivity	Adjustable								
Light source¹⁾, light type	LED, red light								
Light spot diameter	Approx. 250 mm at 15 m								
Supply voltage V_S	10...30 V DC ²⁾								
Ripple ³⁾	< 5 V_{SS}								
Current consumption ⁴⁾	≤ 50 mA ≤ 70 mA, front lens heating								
Switching outputs	PNP or NPN, Q or \bar{Q}								
Output current I_A max.	100 mA								
Response time ⁵⁾	≤ 500 μ s								
Max. switching frequency ⁶⁾	1000/s								
Pre-failure signalling output	Alarm, PNP								
Time delay	Adjustable, 0.5...10 sec								
Test input "TE"	Sender switched off								
Sender OFF	PNP or NPN: TE to 0 V								
Connection types	PG screw fixing Plug								
VDE protection class⁷⁾	<input type="checkbox"/>								
Circuit protection⁸⁾	A, B, C								
Enclosure rating	IP 67								
Ambient temperature T_A	Operation -40 °C...+60 °C Storage -40 °C...+75 °C								
Weight	Approx. 330 g								
Front lens heating									
Polarising filter									
Housing material	Zinc die-cast housing								

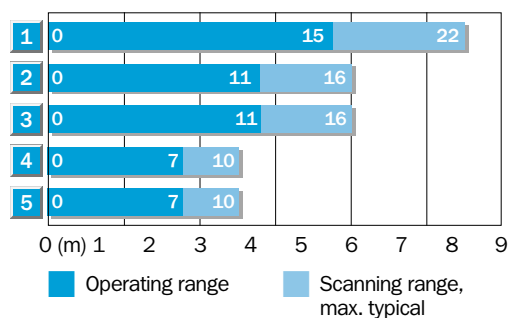
1) Average service life 100,000 h at $T_A = +25\text{ °C}$
2) Limit values

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

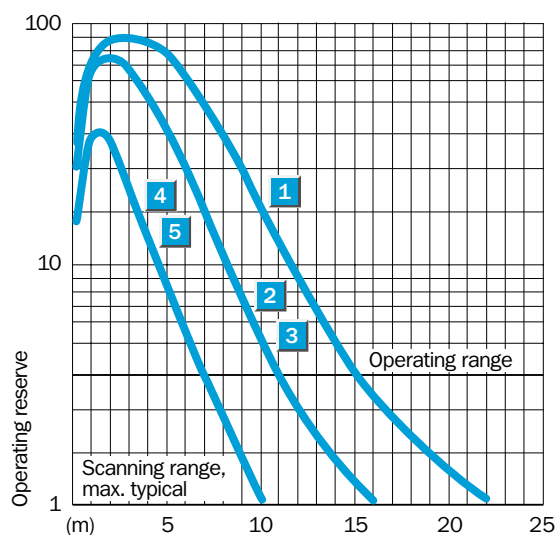
5) Signal transit time with resistive load
6) With light/dark ratio 1:1
7) Reference voltage 50 V DC

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

Scanning range and operating reserve




Reflector type	Operating range
1 PL 80 A	0...15.0 m
2 PL 50 A	0...11.0 m
3 PL 40 A	0...11.0 m
4 PL 30 A	0...7.0 m
5 PL 20 A	0...7.0 m



Order information

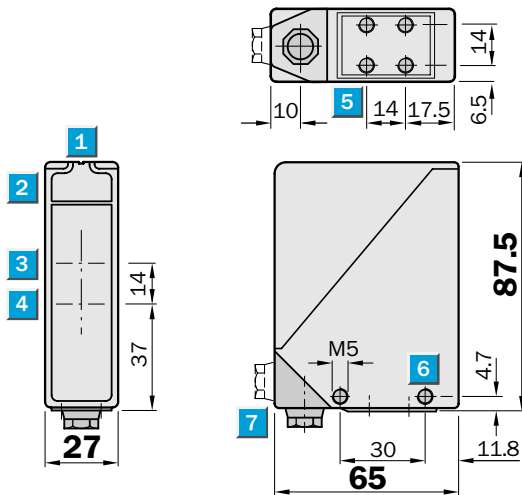
Type	Part no.
WL 24-2B 230	1 015 852
WL 24-2B 240	1 017 859
WL 24-2B 333	1 017 878
WL 24-2B 430	1 017 860
WL 24-2B 440	1 017 879
WL 24-2V 230	1 017 880
WL 24-2V 530	1 017 881


Scanning range
22 m

Photoelectric reflex switches

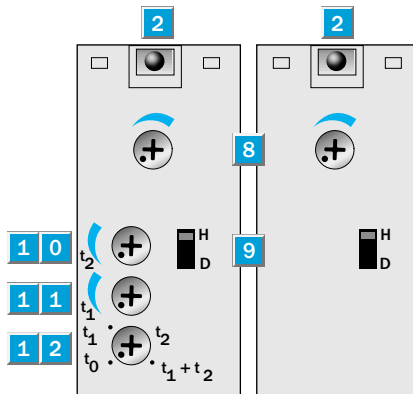
- Robust metal housing
- Large operating reserve and visible red light
- PG cable gland rotatable by 90°
- Front lens heating and selectable time delay, optional

Dimensional drawing



Adjustments possible

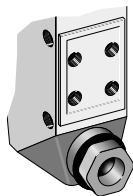
WL 24-2R 240 WL 24-2R 230



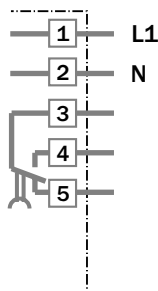
- 1 Alignment sight
- 2 LED signal strength indicator
- 3 Centre of optical axis, sender
- 4 Centre of optical axis, receiver
- 5 M 5 threaded mounting hole, 6 mm deep
- 6 M 5 threaded mounting hole, through-hole
- 7 PG cable gland rotatable by 90°
- 8 Sensitivity adjustment
- 9 Light/dark selector
- 1 0 Time control t_2 = OFF-delay
- 1 1 Time control t_1 = ON-delay
- 1 2 Time delay selector switch

Connection type

WL 24-2R 230
 WL 24-2R 240



PG 9, terminals



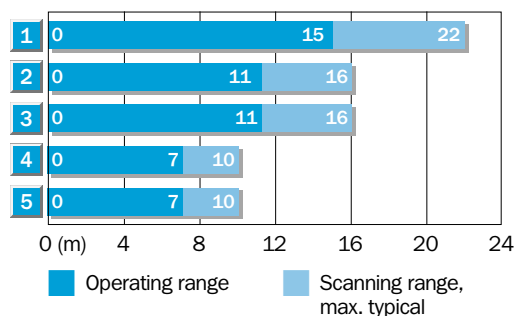
Accessories	page
Mounting brackets	510
Reflectors	520
Special accessories	556
Dust shields	
Weather hoods	
Cooling plates	



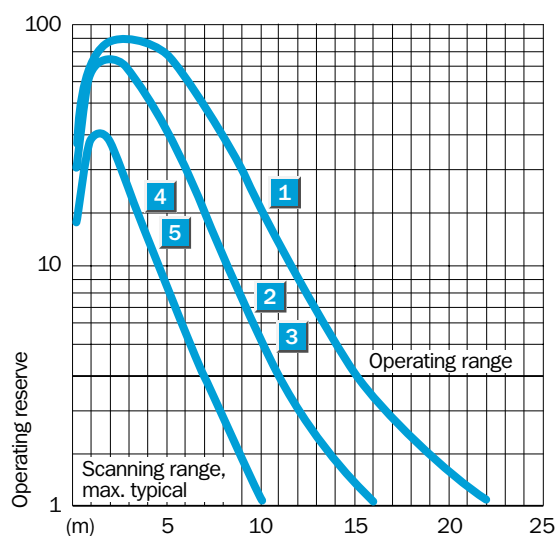
Technical data		WL 24-2	R 230	R 240								
Scanning range , max. typ./on reflector	22 m/on PL 80 A											
Sensitivity	Adjustable											
Light source¹⁾, light type	LED, red light											
Light spot diameter	Approx. 250 mm at a distance of 15 m											
Supply voltage V_S	12...240 V DC ²⁾ , 24...240 V AC ³⁾											
Power consumption without heating	< 2 VA											
Power consumption with heating	< 3 VA											
Switching output	SPDT, isolated ⁴⁾											
Max. switching voltage	250 V AC/120 V DC											
Max. switching current	4 A/240 V AC, 4 A/24 V DC											
Max. switching capacity	AC: 1000 VA/DC: 100 W											
Response time ⁵⁾	≤ 10 ms											
Max. switching frequency ⁶⁾	10/s											
Time delay	Adjustable, 0.5...10 sec											
Connection type	PG cable gland											
VDE protection class⁷⁾	□											
Circuit protection⁸⁾	A, C											
Enclosure rating	IP 67											
Ambient temperature T_A	Operation -40 °C...+60 °C Storage -40 °C...+75 °C											
Weight	Approx. 330 g											
Front lens heating												
Polarising filter												
Housing material	Zinc die-cast housing											

- 1) Average service life 100,000 h at T_U = +25 °C
- 2) Limit values
- 3) ± 10 %
- 4) Provide suitable spark suppression for inductive or capacitive loads
- 5) Signal transit time with resistive load
- 6) With light/dark ratio 1:1
- 7) Reference voltage 250 V UC
- 8) A = V_S connections reverse-polarity protected
C = Interference pulse suppression

Operating range and operating reserve



Reflector type	Operating range
1 PL 80 A	0...15.0 m
2 PL 50 A	0...11.0 m
3 PL 40 A	0...11.0 m
4 PL 30 A	0...7.0 m
5 PL 20 A	0...7.0 m



Order information

Type	Part no.
WL 24-2R 230	1 017 857
WL 24-2R 240	1 017 858