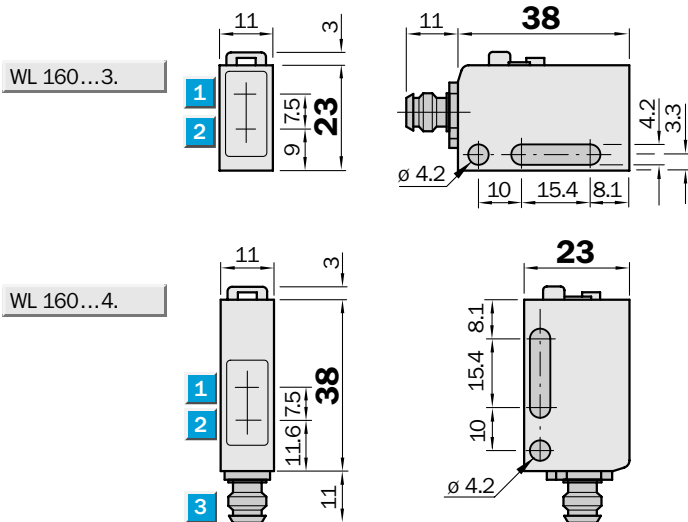


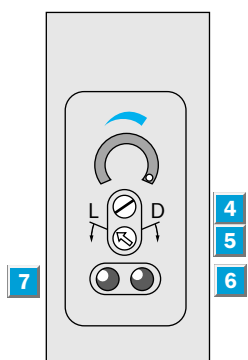
	Scanning range 0.01 ... 3 m
Photoelectric reflex switch	

- Horizontal and vertical models
- Polarizing filter for detecting objects with reflecting surfaces
- Contamination control with red LED indicator and contamination control output
- Test input for equipment and system testing

Dimensional drawing



Setting options
All types

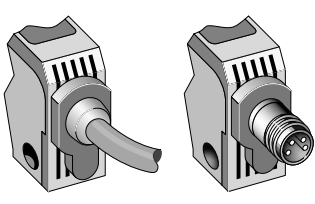
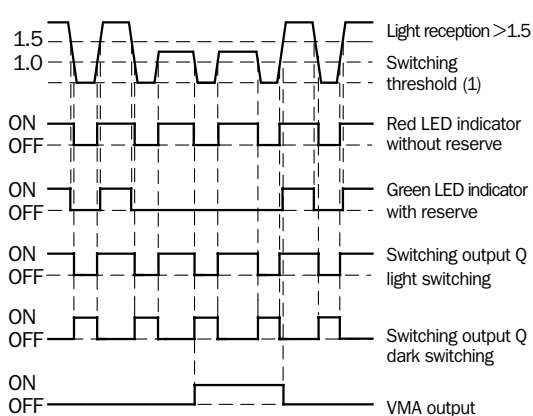


- 1 Optics center, receiver
- 2 Optics center, transmitter
- 3 Plug 4 pin, M 8 or connection cable
- 4 Sensitivity control
- 5 Light/dark rotary switch:
L = light switching
D = dark switching
- 6 Red LED signal strength indicator
- 7 Green LED signal strength indicator

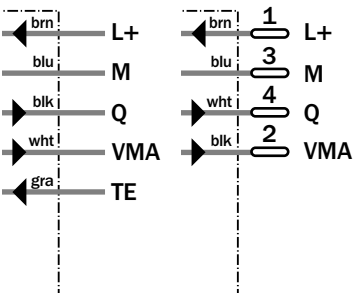


Connection type	
WL 160-P132	WL 160-P430
WL 160-N132	WL 160-N430
WL 160-P142	WL 160-P440
WL 160-N142	WL 160-N440

Operating diagram



5 x 0.2 mm² 4 pin, M 8

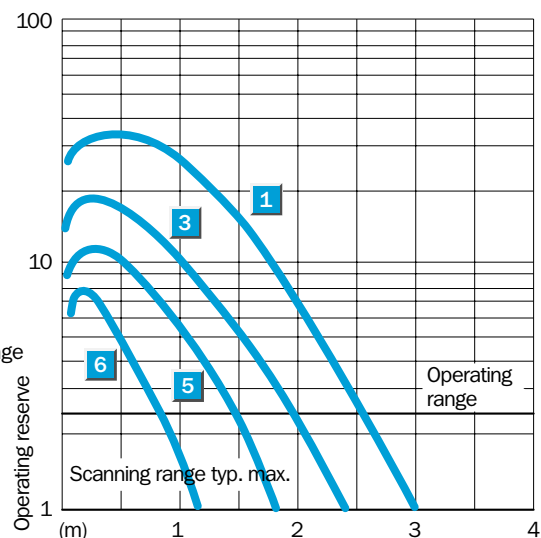
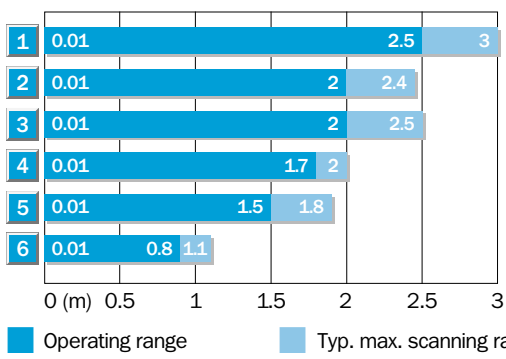


Accessories
Cable receptacles
Mounting bracket
Reflectors

Specifications		WL 160-	P 132	P 430	N 132	N 430	P 142	P 440	N 142	N 440
Housing shape	Horizontal									
	Vertical									
Scanning range typ. max./on reflector	0.01 ... 3 m/PL 80 A									
	0.005 ... 2.4 m/P 250 (supplied w. equip.)									
Operating range	0.01 ... 2.0 m/P 250									
Adjustable sensitivity	Potentiometer, 2 rotations w. scaling 270°									
Light source ¹⁾ , light type	LED, red light with polarizing filter									
Light spot diameter	Approx. 150 mm at 2.0 m distance									
Transmitter dispersion angle	Approx. 4.5°									
Supply voltage V _S	DC 10 ... 30 V ²⁾									
Residual ripple ³⁾	± 10 %									
Current consumption ⁴⁾	≤ 30 mA									
Switching outputs	PNP, open collector: Q NPN, open collector: Q									
Output current I _A max.	100 mA									
Light receiver, switching type	Light/dark switching per rotary switch									
Response time ⁵⁾ /Max. switching frequ. ⁶⁾	≤ 0.9 ms / 550/s									
VMA contamination message	100 mA, static									
Test input TE ⁷⁾	Transmitter off; PNP: TE after +V Transmitter off; NPN: TE after 0V									
Connection type: connection cable	PVC, 2 m ⁸⁾ ; 5 x 0.2 mm ² , ø 4.2 mm									
	plug	4 pin, M8								
VDE protection class ⁹⁾	□									
Protection circuits ¹⁰⁾	A, B, C, D									
Enclosure rating	IP 67									
Ambient temperature	Operation -25 ... +55 °C									
	Storage -40 ... +70 °C									
Weight	With connection cable approx. 60 g									
	With plug approx. 20 g									
Housing material	Housing: ABS; optics: PMMA									

- 1) Average service life 100,000 h at T_U = + 25 °C
- 2) Limit values
- 3) May not exceed or fall short of V_S tolerances
- 4) Without load
- 5) Signal operating time with ohmic load
- 6) With light/dark ratio 1:1
- 7) TE not with plug model
- 8) Do not bend connection cable below 0 °C
- 9) Rated voltage DC 50 V
- 10) A = V_S connections reverse-polarity protected
B = Inputs and outputs reverse-polarity protected
C = Interference pulse suppression
D = Outputs overload and short-circuit protected

Scanning range and operating reserve



Reflector type	Operating Range
1 PL 80 A	0.01 ... 2.5 m
2 PL 250	0.01 ... 2.0 m
3 PL 50 A/PL 40 A	0.01 ... 2.0 m
4 PL 30 A/PL 31 A	0.01 ... 1.7 m
5 PL 20 A	0.01 ... 1.5 m
6 Reflector tap Diamond Grade	0.01 ... 0.8 m

Ordering information

Type	Order no.
WL 160-P 132	6 008 813
WL 160-P 430	6 008 815
WL 160-N 132	6 008 807
WL 160-N 430	6 008 809
WL 160-P 142	6 008 814
WL 160-P 440	6 008 816
WL 160-N 142	6 008 808
WL 160-N 440	6 008 810