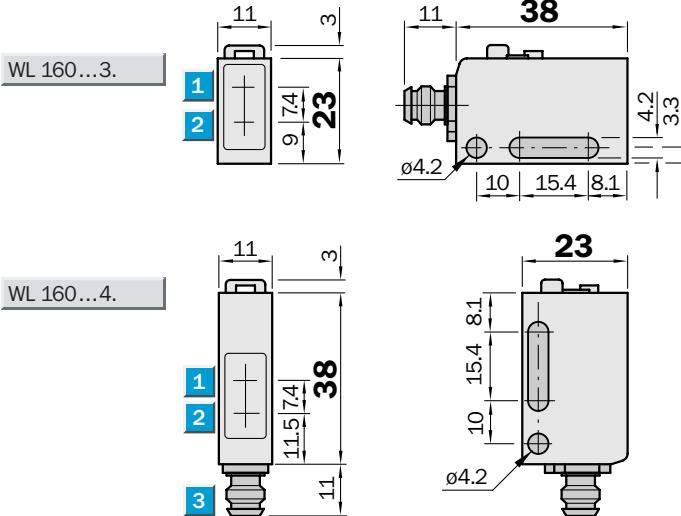


Scanning range
0.01 ... 6 m

Photoelectric reflex switch

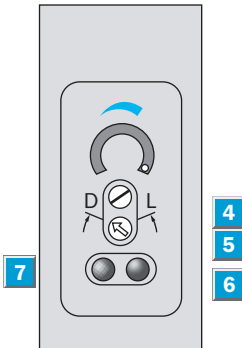
- Horizontal and vertical models
- Polarizing filter for detecting objects with reflecting surfaces
- Contamination control with green LED indicator and contamination control output

Dimensional drawing



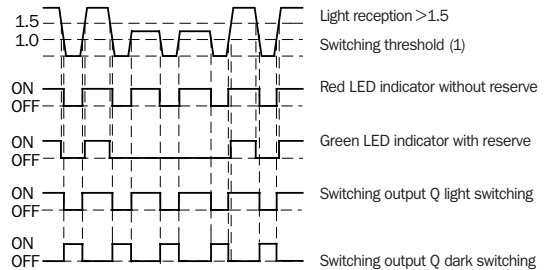
Setting options

All types



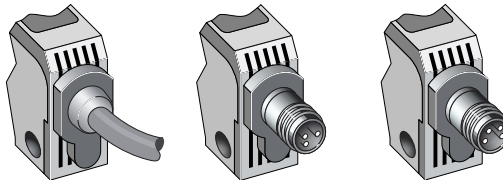
- 1 Optics center, receiver
- 2 Optics center, transmitter
- 3 Plug M 8 or connection cable
- 4 Sensitivity control
- 5 Light/dark rotary switch:
L = light switching
D = dark switching
- 6 Red LED signal strength indicator (Status output)
- 7 Green LED signal strength indicator (Operating reserve)

Operating diagram



Connection type

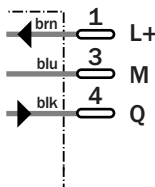
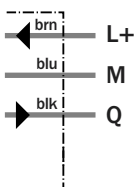
WL 160-E132	WL 160-E330	WL 160-E430
WL 160-E142	WL 160-E340	WL 160-E440
WL 160-F132	WL 160-F330	WL 160-F430
WL 160-F142	WL 160-F340	WL 160-F440



3x0.2 mm²

3 pin, M 8

4 pin, M 8



Accessories

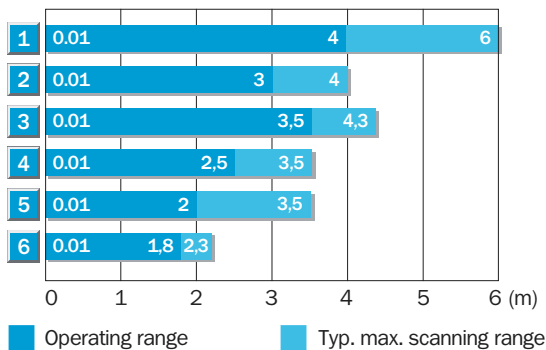
- Cable receptacles
- Mounting bracket (included)
- Reflectors (P250 included)

NC = not connected

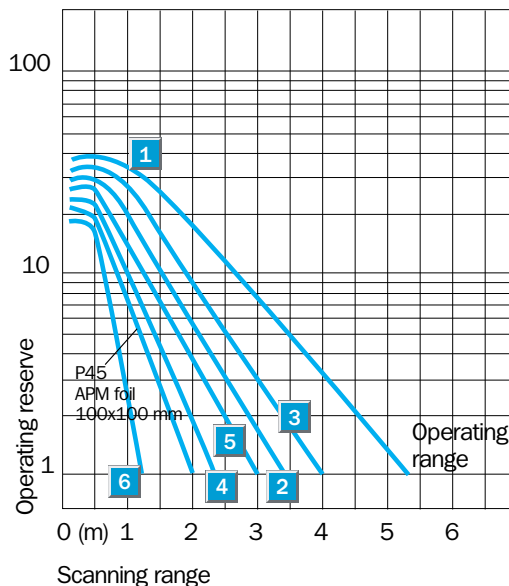
Specifications		WL 160-	F132	F330	F430	E132	E330	E430	F142	F340	F440	E142	E340	E440
Housing shape	Horizontal													
	Vertical													
Scanning range typ. max./on reflector	0.01 ... 6 m/PL 80 A													
	0.005 ... 4 m/P 250 (supplied w. equip.)													
Operating range	0.01 ... 3 m/P 250													
Adjustable sensitivity	Potentiometer, 2 rotations w. scaling 270°													
Light source ⁴⁾ , light type	LED, red light with polarizing filter													
Light spot diameter	Approx. 300 mm at 3 m distance													
Transmitter dispersion angle	Approx. 4.5°													
Supply voltage V_S	DC 10 ... 30 V ²⁾													
Residual ripple ³⁾	± 10 %													
Current consumption ⁴⁾	≤ 25 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⁾	≤ 0.5 ms / 1000/s													
Connection type: connection cable	PVC, 2 m ⁷⁾ ; 3 x 0.2 mm ² , ø 4.2 mm													
	plug 3 pin, M8													
	plug 4 pin, M8													
VDE protection class ⁸⁾	□													
Protection circuits ⁹⁾	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: PBT; optics: PMMA													

- 1) Average service life 100,000 h at $T_U = +25\text{ °C}$
- 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) Do not bend connection cable below 0 °C
- 8) Rated voltage DC 50 V
- 9) 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	PL80 A
2	PL250
3	PL50 A/PL40 A
4	PL30 A/PL31A
5	PL20 A
6	Reflector tap Diamond Grade



Ordering information

Type	Order no.
WL 160-F132	6 022 767
WL 160-F330	6 022 771
WL 160-F430	6 022 772
WL 160-F142	6 022 769
WL 160-F340	6 022 773
WL 160-F440	6 022 774
WL 160-E132	6 022 759
WL 160-E330	6 022 763
WL 160-E430	6 022 764
WL 160-E142	6 022 761
WL 160-E340	6 022 765
WL 160-E440	6 022 766