

# WL 260

## Reflex/Retro-Reflective Sensors



**0.03...45.9 ft (0.01...14 m)**  
sensing range



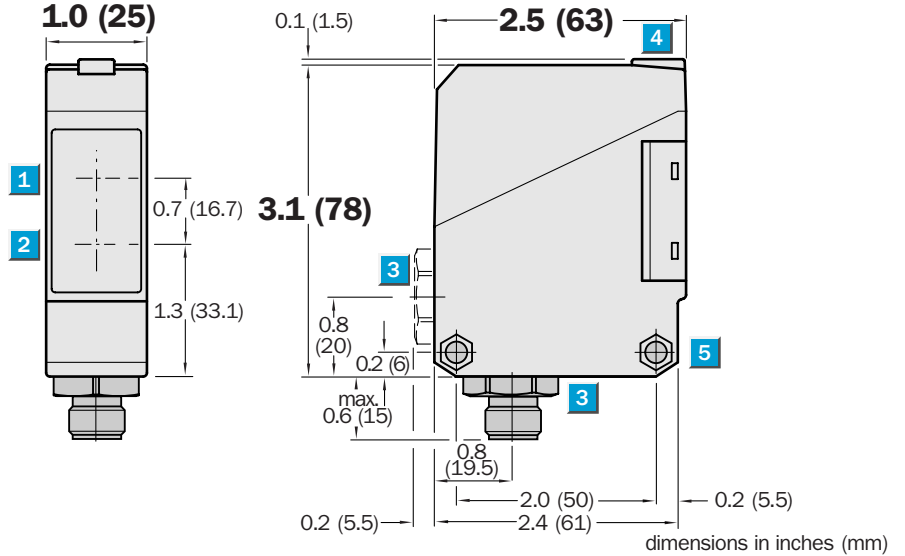
## Highlights

- Rugged plastic housing
- Sensitivity adjustment
- Terminal chamber for connection flexibility
- Test input
- Signal strength indicator
- Polarizing filters prevent false readings on reflective surfaces
- Easy mounting with included nuts

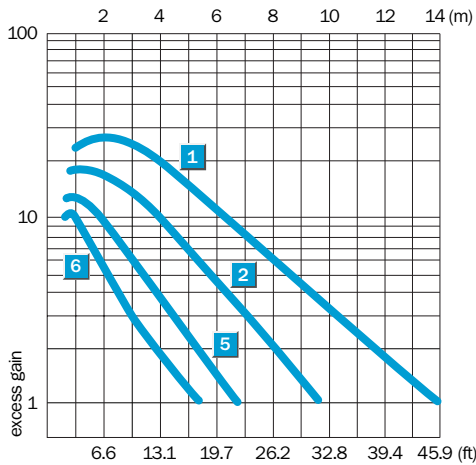
## WL 260



## Dimensional Drawing

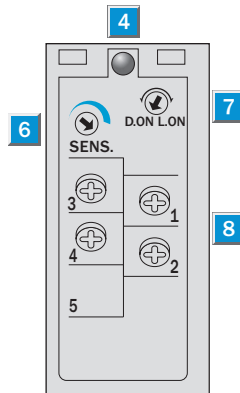


## Excess Gain



## Adjustments

All types



- Center of optical axis, receiver
- Center of optical axis, sender
- Cable entry gland 1/2"PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear; or plug, M12, bottom
- LED signal strength indicator, yellow
- Through hole  $\varnothing$  5.2 mm on both sides for M 5 hex nut
- Sensitivity adjustment
- Light/dark rotary switch  
L.ON = light switching, D.ON = dark switching
- Terminals

Reflector Type	Sensing Range
1 PL 80 A	0.01...14.0 m
2 P 250	0.01...9.5 m
3 PL 50 A, PL 40 A	0.01...11.0 m
4 PL 30 A, PL 31 A	0.01...8.5 m
5 PL 20 A	0.01...7.0 m
6 Reflective tape diamond grade	0.02...5.5 m

Order Information	
Type	Part no.
WL 260-F270	6 020 976
WL 260-F470	6 020 977
WL 260-E270	6 020 978
WL 260-E470	6 021 814

Accessories	page
Cables and connectors	909
Mounting brackets*	924, 935
Reflector P 250*	936

\* included with delivery

Technical Data		WL 260-	F270	F470	E270	E470				
<b>Sensing range</b>	0.03...31.2 ft (0.01...9.5 m)/P 250 (included)									
	0.03...45.9 ft (0.01...14 m)/PL 80 A									
Sensitivity	Adjustable, potentiometer 270°									
<b>Light source<sup>1)</sup>, light type</b>	LED, visible red light, polarized									
Light spot diameter	Approx. 9.4 in at 26.2 ft (240 mm at 8 m)									
Angle of divergence	Approx. 1.7°									
<b>Supply voltage V<sub>s</sub></b>	10...30 V DC <sup>2)</sup>									
Ripple <sup>3)</sup>	≤ 5 V <sub>SS</sub>									
Current consumption <sup>4)</sup>	≤ 35 mA									
<b>Switching outputs</b>	PNP, open collector: Q									
	NPN, open collector: Q									
Output current I <sub>A</sub> max.	100 mA									
Light receiver, switching mode	Light /dark switching by rotary switch									
Response time <sup>5)</sup>	≤ 1.5 ms									
Max. switching frequency <sup>6)</sup>	333 Hz									
<b>Test input "TE" sender off</b>	PNP: TE to + V <sub>s</sub>									
	NPN: TE to 0 V									
<b>Connection types</b>	Terminal chamber									
	Plug, M12 4-pin									
<b>VDE protection class<sup>7)</sup></b>	<input type="checkbox"/>									
<b>Circuit protection<sup>8)</sup></b>	A, B, C, D									
<b>Enclosure rating</b>	IP 67/NEMA 6									
<b>Ambient temperature T<sub>A</sub></b>	Operation -13...131°F (-25...55°C)									
	Storage -40...158°F (-40...70°C)									
<b>Approximate weight</b>	4.2 oz (120 g)									
<b>Housing material</b>	Glass fiber reinforced ABS									

- 1) Average service life 100,000 h at T<sub>A</sub> = 25°C
- 2) Limit values
- 3) Must be within V<sub>s</sub> tolerances
- 4) Without load

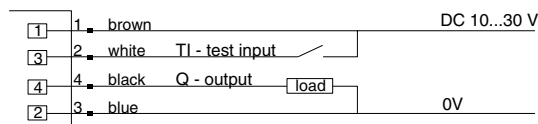
- 5) With resistive load
- 6) With light/dark ratio 1:1
- 7) Reference voltage 50 V DC

- 8) A = V<sub>s</sub> connections reverse-polarity protected
- B = Inputs/outputs reverse-polarity protected

- C = Interference suppression
- D = Outputs overcurrent and short-circuit protected

### Connection Diagram

#### PNP Models



wire colors refer to standard cable, not included

#### NPN Models

