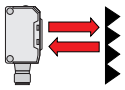


# WL 150

## Reflex/Retro-Reflective Sensors



**0.02...7.9 ft (0.005...2.4 m)**  
sensing range



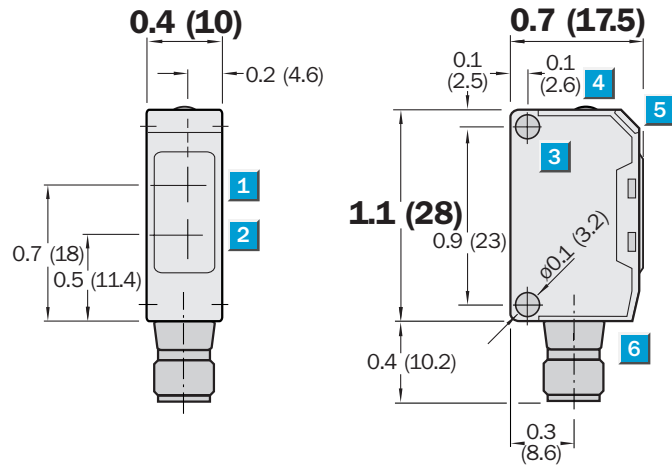
## Highlights

- Rugged plastic housing
- Polarizing filter prevents false readings on reflective surfaces
- Also suitable for "Diamond Grade" reflective tape
- Sensitivity adjustment
- Red light for easy alignment
- Signal strength indicator
- Cable or M8 quick disconnect versions

## WL 150

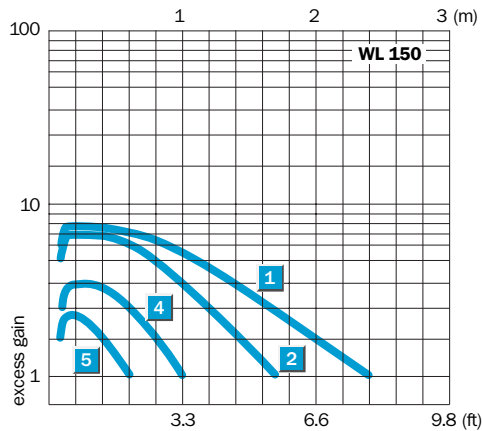


## Dimensional Drawing



dimensions in inches (mm)

## Excess Gain



## Adjustments

All types



- 1 Center of optical axis, receiver
- 2 Center of optical axis, sender
- 3 Mounting hole  $\varnothing$  3.2 mm
- 4 Sensitivity adjustment 270°
- 5 LED indicator, red:  
Light received  $\geq$  switching threshold
- 6 Plug, M8 4-pin or cable

Reflector Type	Sensing Range
1 PL 80 A	0.01...2.4 m
2 P 250	0.01...1.7 m
3 PL 50 A or PL 40 A	0.01...1.7 m
4 PL 30 A or PL 31 A	0.01...1.5 m
5 PL 20 A	0.01...1.0 m
6 Reflect. tape diamond grade	0.01...0.6 m

Order Information	
Type	Part no.
WL 150-P132	6 011 036
WL 150-P430	6 011 038
WL 150-N132	6 011 033
WL 150-N430	6 011 035

Accessories	page
Cables and connectors	908
Mounting brackets Type A*	919
Reflectors**	936

\* included with delivery

\*\* reflector PL 20 A included with delivery

Technical Data		WL 150-	P132	P430	N132	N430					
<b>Sensing range</b>	00.02...3.3 ft (0.005...1.0 m)/PL 20 A (included)										
	00.02...7.9 ft (0.005...2.4 m)/PL 80 A										
Sensitivity, adjustable	Potentiometer 270°										
<b>Light source<sup>3)</sup>, light type</b>	LED, visible red light, polarized										
Light spot diameter	Approx. 5.9 in at 4.9 ft (150 mm at 1.5 m)										
Angle of divergence	Approx. 6°										
<b>Supply voltage V<sub>S</sub></b>	10...30 V DC <sup>2)</sup>										
Ripple <sup>3)</sup>	± 10%										
Current consumption <sup>4)</sup>	≤ 20 mA										
<b>Switching outputs</b>	PNP, open collector: Q										
	NPN, open collector: Q										
Max. output current I <sub>A</sub>	100 mA										
Operation mode <sup>5)</sup>	Light/dark switching via control wire L/D										
	+ V <sub>S</sub> = light switching										
	0 V = dark switching										
Response time <sup>6)</sup>	≤ 0.5 ms										
Max. switching frequency <sup>7)</sup>	1000 Hz										
<b>Connection types</b>	Cable, PVC, 2 m <sup>8)</sup> ; 4 x 0.18 mm <sup>2</sup> , Ø 3.5 mm										
	Plug, M8 4-pin										
<b>VDE protection class<sup>9)</sup></b>	<input type="checkbox"/>										
<b>Circuit protection<sup>10)</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...167°F (-40...75°C)										
<b>Approximate weight</b>	1.6 oz (44 g)										
	0.3 oz (7 g)										
<b>Housing material</b>	Glass fiber reinforced ABS										

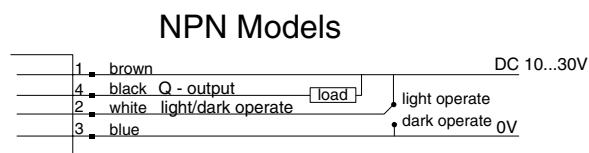
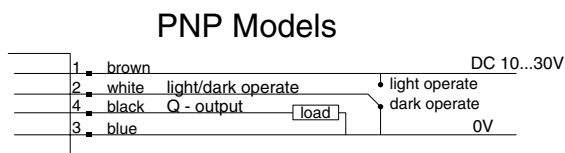
- 1) Average service life 100,000 h where T<sub>A</sub> = 25°C
- 2) Limit values
- 3) May not exceed or fall short of V<sub>S</sub> tolerances

- 4) Without load
- 5) Control cable open:  
NPN: light-switching  
PNP: dark-switching
- 6) Signal transit time with resistive load

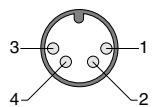
- 7) With light/dark ratio 1:1
- 8) Do not bend below 0°C
- 9) Reference voltage 50 V DC

- 10) A = V<sub>S</sub> connections reverse-polarity protected
- B = Inputs and outputs reverse-polarity protected
- C = Interference pulse suppression
- D = Outputs overcurrent and short-circuit protected

### Connection Diagram



M8 Connector



wire colors refer to standard cable, not included with quick disconnect models

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[E3T-CT22S](#) [E3T-FD12R](#) [E3T-SL14R](#) [E3T-SL24 5M](#) [E3T-ST12R](#) [E3T-ST24 2M](#) [E3X-CN02](#) [E3X-CN11 5M](#) [E3X-CN21 10M](#) [E3ZM-B66](#)  
[E3ZM-CL81H 2M](#) [E3Z-T62 2M](#) [NJL5303R-TE1](#) [PB10CNT15PO](#) [PD60CNX20BP](#) [FZS](#) [CX-491-P-J](#) [CX-491-Z](#) [XUM2BKCNL2T](#)  
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