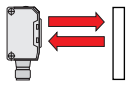


WT 150

Proximity/Diffuse Sensors - Energetic



0.4...9.8 in (10...250 mm)
sensing range



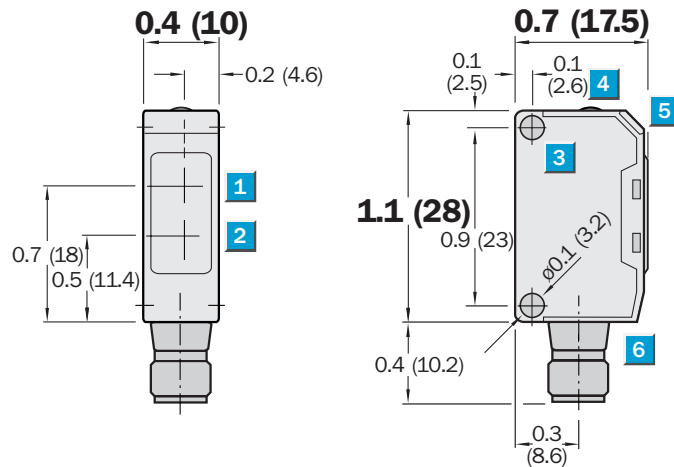
Highlights

- Rugged plastic housing
- Signal strength indicator
- Switching point adjustable with sensitivity potentiometer
- Red light for easy alignment
- Easy mounting with included bracket
- Cable or M8 quick disconnect versions

WT 150

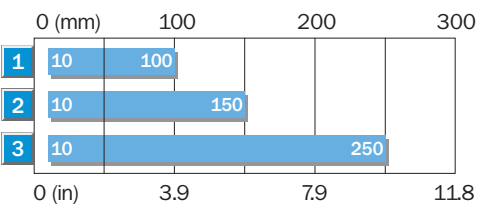
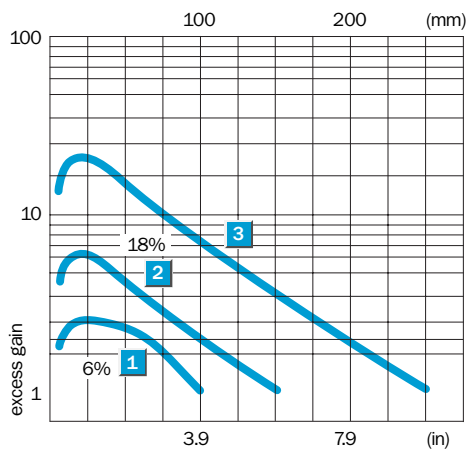


Dimensional Drawing



dimensions in inches (mm)

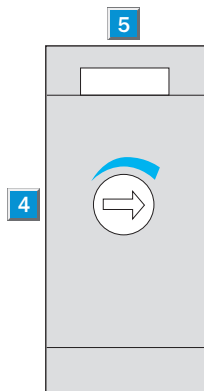
Excess Gain



- | | |
|---|---------------------------------------|
| 1 | Sensing range on black, 6% remission |
| 2 | Sensing range on grey, 18% remission |
| 3 | Sensing range on white, 90% remission |

Adjustments

All types



- | | |
|---|---|
| 1 | Center of optical axis, receiver |
| 2 | Center of optical axis, sender |
| 3 | Mounting holes Ø 3.2 mm |
| 4 | Sensitivity adjustment 270° |
| 5 | LED signal strength indicator
Light received ≥ switching threshold |
| 6 | M8 plug |

Order Information

Type	Part no.
WT 150-P132	6 011 042
WT 150-N132	6 011 044
WT 150-P430	6 011 039
WT 150-N430	6 011 041

Accessories

Accessories	page
Cables and connectors	908
Mounting brackets*	919

* included with delivery

Technical Data		WT 150-	P132	P430	N132	N430					
Sensing range	0.4...9.8 in (10...250 mm) ¹⁾										
Sensitivity, adjustable	Potentiometer, 270°										
Light source²⁾, light type	LED, red light										
Light spot diameter	Approx. 0.8 in at 7.9 in (20 mm at 200 mm)										
Angle of divergence	Approx. 6°										
Supply voltage V_S	10...30 V DC ³⁾										
Ripple ⁴⁾	± 10%										
Current consumption ⁵⁾	≤ 20 mA										
Switching outputs	PNP, open collector: Q										
	NPN, open collector: Q										
Max. output current I _A	100 mA										
Operation mode ⁶⁾	Light/dark switching via control wire										
	+ V _S = light switching										
	0 V = dark switching										
Response time ⁷⁾	≤ 0.5 ms										
Max. switching frequency ⁸⁾	1000 Hz										
Connection types	Cable, PVC, 2 m ⁹⁾ ; 4 x 0.18 mm ² , Ø 3.5 mm										
	Plug, M8 4-pin										
VDE protection class¹⁰⁾	<input type="checkbox"/>										
Circuit protection¹¹⁾	A, B, C, D										
Enclosure rating	IP 67/NEMA 6										
Ambient temperature T_A	Operation -13...131°F (-25...55°C)										
	Storage -40...158°F (-40...70°C)										
Approximate weight	1.6 oz (44 g)										
	0.3 oz (7 g)										
Housing material	Glass fiber reinforced ABS										

- 1) Object with 90% remission (based on standard white to DIN 5033)
- 2) Average service life 100,000 h where T_A = 25°C
- 3) Limit values

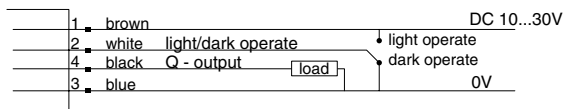
- 4) May not exceed or fall short of V_S tolerances
- 5) Without load
- 6) Control cable open: NPN: light-switching PNP: dark-switching

- 7) Signal transit time with resistive load
- 8) With light/dark ratio 1:1
- 9) Do not bend below 0°C
- 10) Reference voltage 50 V DC

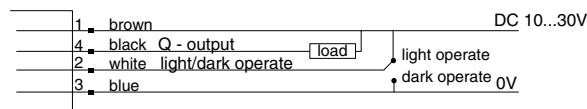
- 11) A = V_S connections reverse-polarity protected
- B = Inputs and outputs reverse-polarity protected
- C = Interference pulse suppression
- D = Outputs overcurrent and short-circuit protected

Connection Diagram

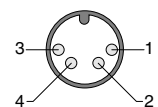
PNP Models



NPN Models



M8 Connector



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