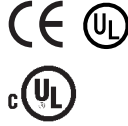


WT 12-2

Proximity/Diffuse Sensors-Energetic



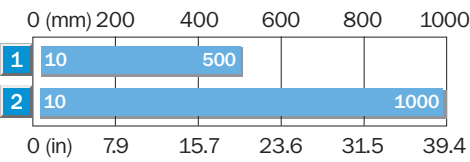
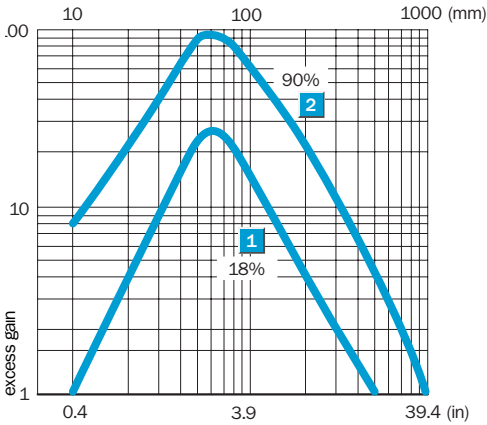
0.4...39.4 in (10...1000 mm)
sensing range



WT 12-2



Excess Gain



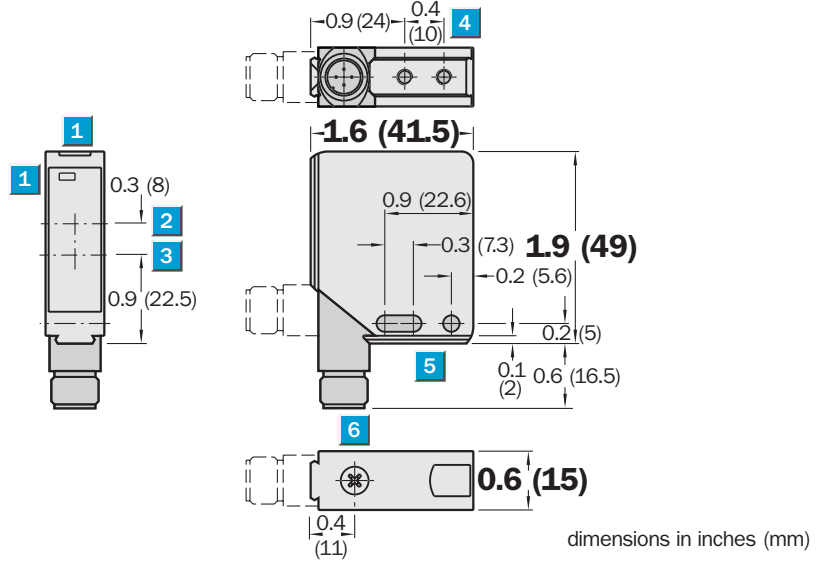
■ Maximum sensing range

- 1 Sensing range on grey, 18% remission
- 2 Sensing range on white, 90% remission

Highlights

- Rugged die cast metal housing
- Insensitive to ambient light
- Energetic proximity sensor with adjustable sensing range
- Crosstalk immunity
- Signal strength indicator
- Cable connections swivel 90° for easy installation

Dimensional Drawing



Adjustments

All types



- 1 LED signal strength indicator
- 2 Center of optical axis, receiver
- 3 Center of optical axis, sender
- 4 M4 threaded mounting hole – 4 mm deep
- 5 Mounting holes \varnothing 4.2 mm
- 6 Sensing range adjustment

Order Information

Type	Part no.
WT 12-2P450	1 016 142
WT 12-2P150	1 016 140
WT 12-2N450	1 016 139
WT 12-2N150	1 016 138

Accessories	page
Cables and connectors	909
Mounting brackets	922
Clamps*	921

* 2 pieces included with delivery

Technical Data		WT 12-2-	P450	P150	N450	N150					
Sensing range, adjustable	0.4...39.4 in (10...1000 mm)										
Light source¹⁾, light type	LED, red light										
Light spot diameter	1.2 in at 23.6 in (30 mm at 600 mm)										
Angle of divergence	Approx. 3°										
Supply voltage V_S	10...30 V DC ²⁾										
Ripple ³⁾	≤ 5 V _{SS}										
Current consumption ⁴⁾	≤ 30 mA										
	≤ 40 mA										
Switching outputs	PNP, Q and \bar{Q}										
	NPN, Q and \bar{Q}										
Output current I _A max.	≤ 100 mA										
Response time ⁵⁾	≤ 330 μs										
Max. switching frequency ⁶⁾	1500 Hz										
Connection types	Cable ⁷⁾ , 2 m										
	Plug, M12 4-pin										
VDE protection class⁸⁾	<input type="checkbox"/>										
Circuit protection⁹⁾	A, B, C										
Enclosure rating	IP 67/NEMA 6										
Ambient temperature T_A	Operation -40...140°F (-40...60°C)										
	Storage -40...167°F (-40...75°C)										
Approximate weight	4.2 oz (120 g)										
	7.1 oz (200 g)										
Housing material	Die cast zinc										

1) Average service life 100,000 h at T_A = 25°C
 2) Limit values

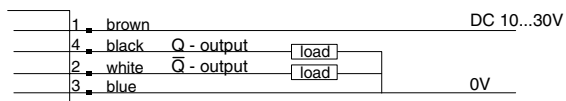
3) May not exceed or fall short of V_S tolerances
 4) Without load
 5) Signal transit time with resistive load

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

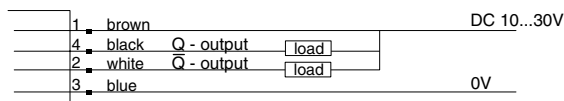
9) A = V_S connections reverse-polarity protected
 B = Output Q and \bar{Q} short-circuit protected
 C = Interference pulse suppression

Connection Diagram

PNP Models



NPN Models



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

