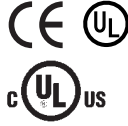


WT 27-2 Red

Proximity/Diffuse Sensors-Background Suppression



1.2...39.4 in (30...1000 mm)
sensing range



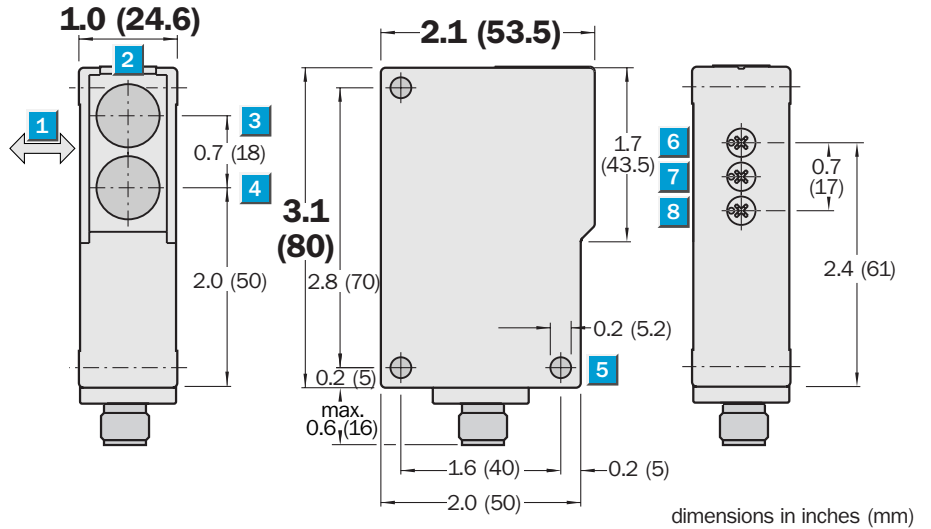
WT 27-2



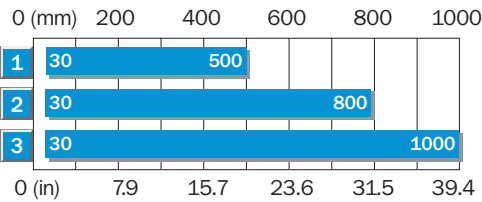
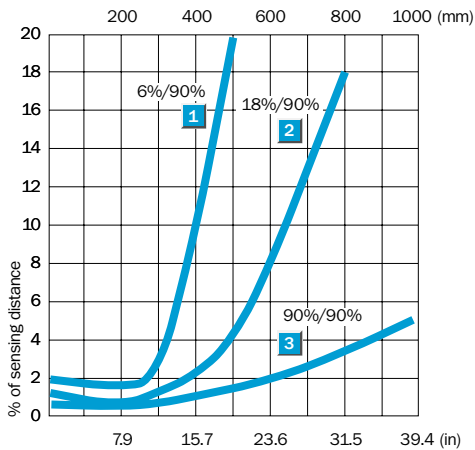
Highlights

- Red light for easy alignment
- Adjustable background suppression
- Crosstalk immunity
- Rugged plastic housing
- Signal strength indicator
- Adjustable sensing range

Dimensional Drawing



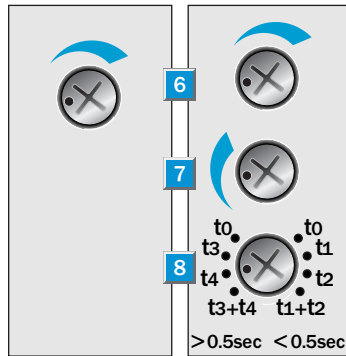
Background Suppression



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

Adjustments

WT 27-2F430	WT 27-2P630
WT 27-2F730	WT 27-2N630



- 1 Standard direction of the material being sensed
- 2 LED signal strength indicator
- 3 Center of optical axis, sender
- 4 Center of optical axis, receiver
- 5 Mounting hole \varnothing 5.2 mm
- 6 Sensitivity adjustment
- 7 Time control
- 8 Time delay selector switch

Switch-selectable Time Delay

0.5 – 10 s

- t_0 Without time delay
- t_3 OFF-delay from trailing edge of object
- t_4 ON-delay from leading edge of object
- $t_3 + t_4$ OFF- and ON-delay

0.02 – 0.5 s

- t_0 Without time delay
- t_1 OFF-delay from trailing edge of object
- t_2 ON-delay from leading edge of object
- $t_1 + t_2$ OFF- and ON-delay

Order Information

Type	Part no.
WT 27-2F430	1 015 082
WT 27-2P630	1 015 090
WT 27-2F730	1 015 084
WT 27-2N630	1 015 088

Accessories

Accessories	page
Cables and connectors	909
Mounting brackets 923, 924, 935	

Technical Data		WT 27-2-	F430	P630	F730	N630					
Sensing range, adjustable	1.2...39.4 in (30...1000 mm)										
Background suppression	3.9...39.4 in (100...1000 mm)										
Background suppression capability	% of set sensing distance (see previous page)										
Light source¹⁾, light type	LED, red light										
Light spot diameter	Approx. 0.6 in at 19.7 in (15 mm at 500 mm)										
Angle of divergence	Approx. 1.8°										
Supply voltage V_S	10...30 V DC ²⁾										
Ripple ³⁾	≤ 5 V _{SS}										
Current consumption ⁴⁾	≤ 25 mA										
Switching outputs	PNP, Q and \bar{Q}										
	NPN, Q and \bar{Q}										
Output current I _A max.	100 mA										
Response time ⁵⁾	2 ms										
Max. switching frequency ⁶⁾	250 Hz										
Selectable delay ranges	0.5...10 s/0.02...0.5 s										
Test input "TE", sender OFF	PNP: Test input to 0 V										
	NPN: Test input to V _S										
Connection types	Plug, square 6-pin										
	Plug, M12 4-pin										
	Plug, square 7-pin										
VDE protection class⁷⁾	□										
Circuit protection⁸⁾	A, B, C										
Enclosure rating	IP 67/NEMA 6										
	IP 65										
Ambient temperature T_A	Operation -40...140°F (-40...60°C)										
	Storage -40...167°F (-40...75°C)										
Approximate weight	3.5 oz (100 g)										
Housing material	Glass fiber reinforced ABS										

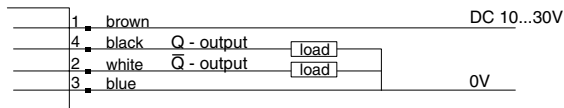
- 1) Average service life 100,000 h at T_A = 25°C
- 2) Limit values
- 3) May not exceed or fall short of V_S tolerances

- 4) Without load
- 5) Signal transit time with resistive load
- 6) With light/dark ratio 1:1
- 7) Reference voltage 50 V DC

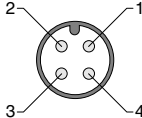
- 8) A = V_S connections reverse-polarity protected
- B = Output Q and \bar{Q} short-circuit protected
- C = Interference pulse suppression

Connection Diagram

PNP Models

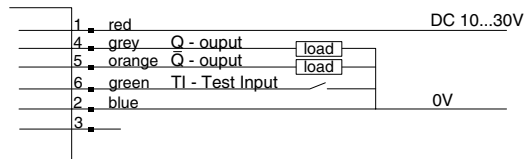


M12 Connector

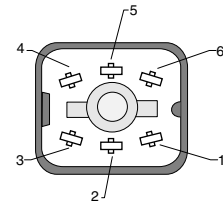
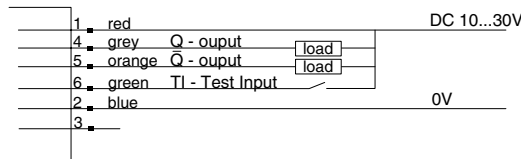


wire colors refer to standard cable, not included with quick disconnect models

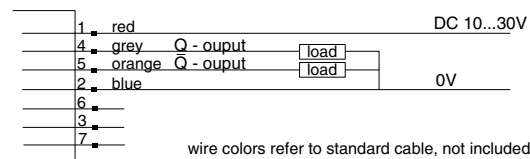
PNP



NPN



PNP



wire colors refer to standard cable, not included

