

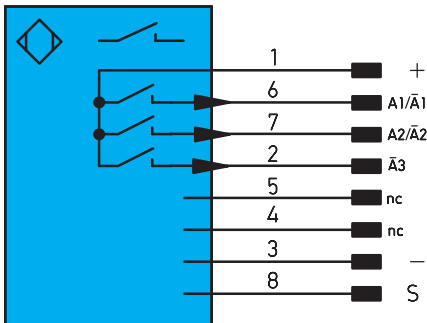
# OPT Series Color Sensors



## Features

- Capable of evaluating up to 3 colors simultaneously
- Single lens optics allows this sensor to have a small spot diameter and large working range
- Reflex mode operation
- 3 switching outputs
- IP68

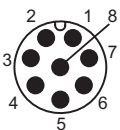
## Wiring Diagram



Legend	
+	Supply Voltage +
-	Supply Voltage 0V
A1/Ā1	Switching output 1 (N.O./N.C.)
A2/Ā2	Switching output 2 (N.O./N.C.)
Ā3	Input (analog or digital)/switching output (N.C.)
S	Shielding

## Connectors

### 8-Pin M12 connector



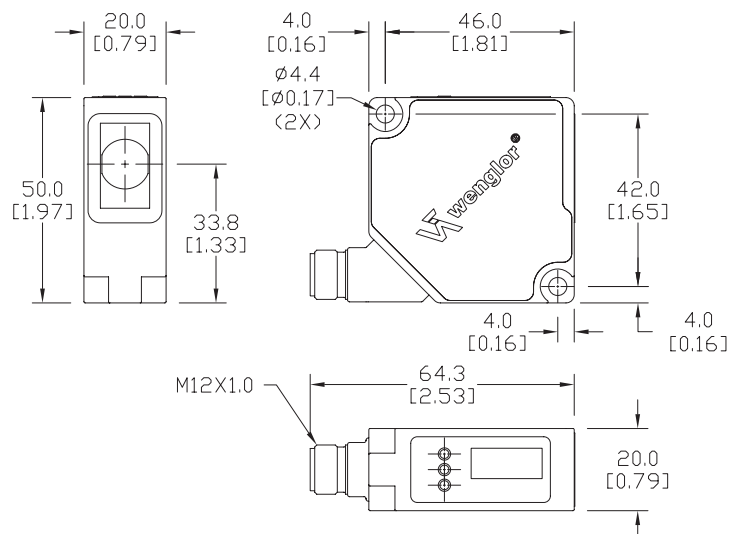
## OPT2023 Specifications

Part Number	OPT2023
Price	\$372.00
Working Range	30 to 40mm
Working Distance	35mm
Light Source	White light
Service Life (T = +25°C)	100,000h
Max. Ambient Light	10,000 Lux
Spot Diameter	3mm
Operating Voltage	10 to 30VDC
No Load Supply Current	< 80mA
Switching Frequency	1.8 kHz
Response Time	~ (1000/1.8) μs x filter
Temperature Range	-25 to 60°C [-13 to 140°F]
Switching Outputs	3 NPN/PNP
Switching Output Voltage Drop	1.5 V
Operating (load) Current	100mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Digital Inputs	2
Protection Class	III
Setting Method	Teach-In
Housing Material	Plastic
Degree of Protection	IP68
Connection	8-pin M12
Operating Mode	Selectable light-on/dark-on
Approvals	CE, RoHs, cULus,

Note: To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

## Dimensions

mm [inches]



See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.

# Accessories for OPT Series 50x50mm Photoelectric Sensors

## Right-angle Brackets

Mounting bracket, right-angle, nickel-plated steel or 304 stainless steel.  
For use with OPT series 50x50mm photoelectric sensors.

Accessories for OPT Series 50x50mm Photoelectric Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
<a href="#"><u>OPT2031</u></a>	\$7.00	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with OPT series 50x50mm photoelectric sensors.	<a href="#"><u>PDF</u></a>	0.24
<a href="#"><u>OPT2038</u></a>	\$11.00	Wenglor mounting bracket, right-angle, vertical and horizontal adjustment, 304 stainless steel. For use with OPT series 50x50mm photoelectric sensors.	<a href="#"><u>PDF</u></a>	0.19



[OPT2031](#)



[OPT2038](#)

# Accessories for OPT Series 50x50mm Photoelectric Sensors

## Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with OPT series 50x50mm photoelectric sensors. Available in all stainless steel or with an aluminum head with a stainless steel mounting plate.

Accessories for OPT Series 50x50mm Photoelectric Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight [lb]
<a href="#"><u>OPT2122</u></a>	\$11.50	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with OPT series 50x50mm photoelectric sensors.	Aluminum	304 Stainless Steel	<a href="#"><u>PDF</u></a>	0.19
<a href="#"><u>OPT2123</u></a>	\$21.00	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with OPT series 50x50mm photoelectric sensors.	304 Stainless Steel	304 Stainless Steel	<a href="#"><u>PDF</u></a>	0.31

**NOTE:**

304 Stainless steel mounting rods sold separately: [OPT2109](#) (200mm length), [OPT2110](#) (300mm length), and [OPT2111](#) [500mm length].



[OPT2122,](#)  
[OPT2123](#)

# Mounting Rods and Brackets

## Mounting Rods

304 Stainless steel rods for mounting swivel brackets [OPT2112](#) - [OPT2127](#). Available in three lengths: 200mm, 300mm, and 500mm. 12mm diameter.

Mounting Rods for OPT2112-2127 Swivel Mounting Brackets				
Part Number	Price	Description	Drawing Link	Weight lb (g)
<a href="#">OPT2109</a>	\$13.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	<a href="#">PDF</a>	0.41 [185.97]
<a href="#">OPT2110</a>	\$16.00	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	<a href="#">PDF</a>	0.60 [272.16]
<a href="#">OPT2111</a>	\$21.00	Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	<a href="#">PDF</a>	0.98 [444.52]



## Right-angle Mounting Bracket

Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods [OPT2109](#), [OPT2110](#) & [OPT2111](#).

Right-angle Mounting Brackets for 12mm Sensors				
Part Number	Price	Description	Drawing Link	Weight lb [g]
<a href="#">OPT2108</a>	\$16.00	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	<a href="#">PDF</a>	0.07 [31.8]

