

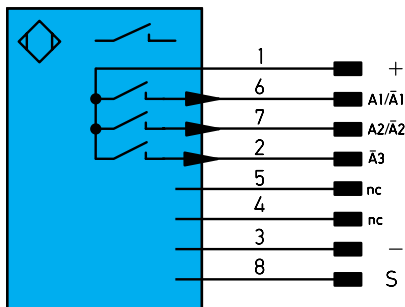
# OPT Series Color Sensors



**OPT2023**      **\$299.00**

- 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

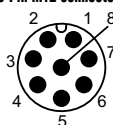
## Wiring Diagram



Legend	
+	Supply Voltage +
-	Supply Voltage 0V
A1/Ā1	Switching output 1 (NO/NC)
A2/Ā2	Switching output 2 (NO/NC)
Ā3	Input (analog or digital)/switching output (NC)
S	Shielding

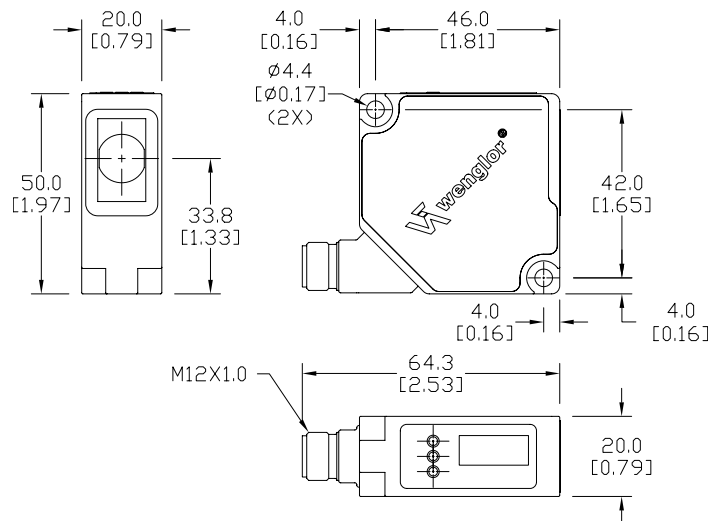
## Connectors

8-Pin M12 connector



OPT2023 Specifications	
<b>Working range</b>	30 to 40 mm
<b>Working distance</b>	35mm
<b>Light source</b>	White light
<b>Service Life (T = +25°C)</b>	100,000h
<b>Max. ambient light</b>	10,000 Lux
<b>Spot diameter</b>	3mm
<b>Operating voltage</b>	10 to 30 VDC
<b>No load supply current</b>	< 80mA
<b>Switching frequency</b>	1.8 kHz
<b>Response time</b>	~ (1000/1.8) μs x filter
<b>Temperature range</b>	-25° to 60°C [-13° to 140°F]
<b>Switching outputs</b>	3 NPN/PNP
<b>Switching output voltage drop</b>	1.5 V
<b>Operating (load) current</b>	100mA
<b>Short circuit protection</b>	yes
<b>Reverse polarity protection</b>	yes
<b>Overload protection</b>	yes
<b>Digital inputs</b>	2
<b>Protection class</b>	III
<b>Setting method</b>	Teach-In
<b>Housing material</b>	Plastic
<b>Degree of protection</b>	IP68
<b>Connection</b>	8-pin M12
<b>Operating mode</b>	Selectable light-on/dark-on
<b>Approvals</b>	CE, RoHS, cULus,
<b>Note: To obtain the most current agency approval information—see the Agency Approval Checklist section on the specific part number's web page.</b>	

## Dimensions mm [inches]



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

# Accessories for OPT Series 50x50mm Photoelectric Sensors

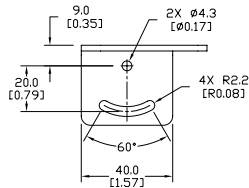
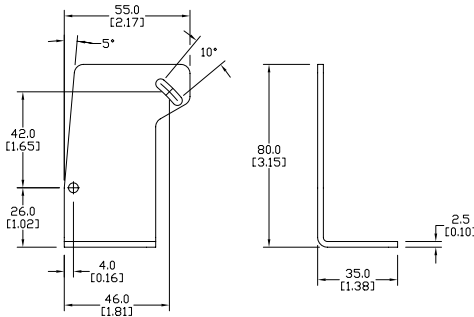
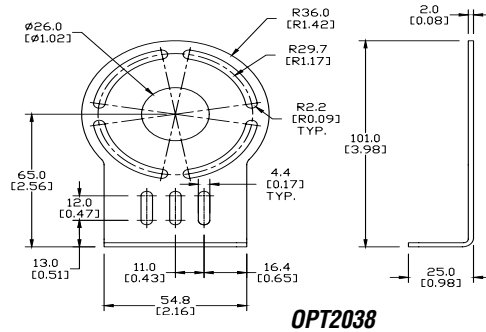
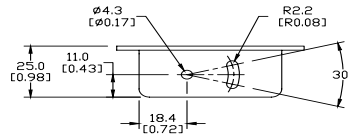
## Right-angle Brackets

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

Accessories for OPT2001 - OPT2011 Sensors			
Part Number	Price	Description	Weight [lb]
<b>OPT2031</b>	\$5.75	Mounting bracket, right-angle, nickel-plated steel. For use with OPT series 50x50mm photoelectric sensors.	0.24
<b>OPT2038</b>	\$8.75	Mounting bracket, right-angle, vertical and horizontal adjustment, 304 stainless steel. For use with OPT series 50x50mm photoelectric sensors.	0.19

## Dimensions

mm [inches]



**OPT2031**

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

# 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 OPT2001 - OPT2011 Sensors					
Part Number	Price	Description	Mounting Head	Mounting Plate	Weight [lb]
<b>OPT2122</b>	\$9.25	Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with OPT series 50x50mm photoelectric sensors.	Aluminum	304 Stainless Steel	0.19
<b>OPT2123</b>	\$16.50	Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, stainless steel, 12mm rod mount. For use with OPT series 50x50mm photoelectric sensors.	304 Stainless Steel	304 Stainless Steel	0.31

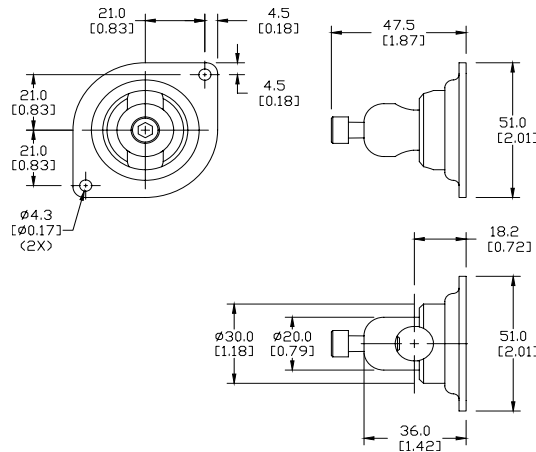
**Note:** 304 Stainless steel mounting rods sold separately: OPT2109 (200mm length), OPT2110 (300mm length), and OPT2111 (500mm length).



**OPT2122, OPT2123**

## Dimensions

mm [inches]



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

# Mounting Rods

## Mounting Rods

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

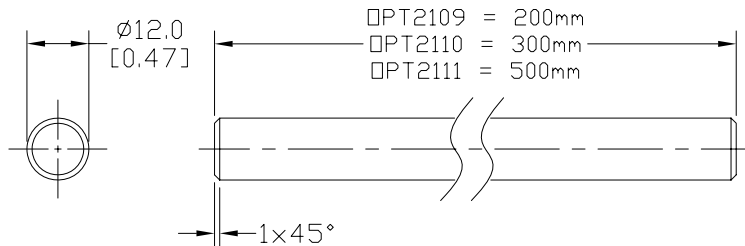
Mounting Rods for OPT2112-2127 Swivel Mounting Brackets			
Part Number	Price	Description	Weight [lb]
<b>OPT2109</b>	\$10.50	Mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	0.41
<b>OPT2110</b>	\$12.50	Mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	0.60
<b>OPT2111</b>	\$16.50	Mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	0.98



**OPT2109, OPT2110, OPT2111**

## Dimensions

mm [inches]



## Right-angle Mounting Bracket

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

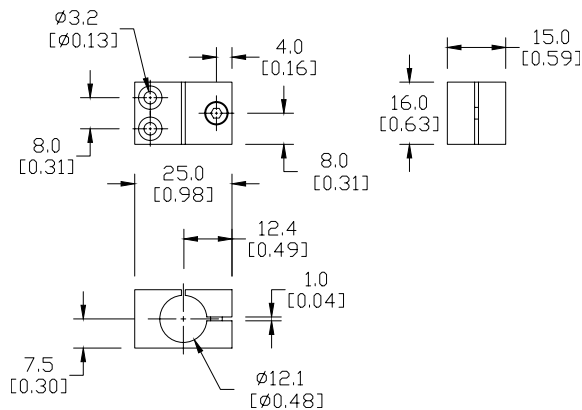
Accessories for 12mm Sensors			
Part Number	Price	Description	Weight [lb]
<b>OPT2108</b>	\$12.50	Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	0.07



**OPT2108**

## Dimensions

mm [inches]



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