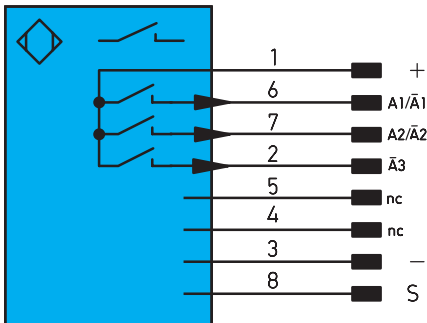


OPT Series Color Sensors



- 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

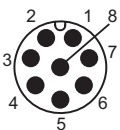
Wiring Diagram



| 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

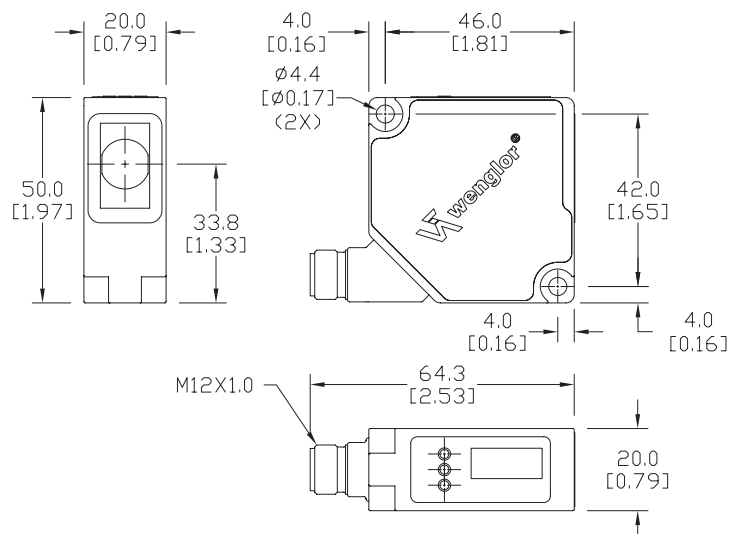


| OPT2023 Specifications | |
|-------------------------------|-----------------------------|
| Part Number | OPT2023 |
| Price | |
| Working range | 30 to 40mm |
| Working distance | 35mm |
| Light source | White light |
| Service Life (T = +25°C) | 100,000h |
| Max. ambient light | 10,000 Lux |
| Spot 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 Approval Checklist section on the specific part number's web page.

Dimensions

mm [inch]



See our website: 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] |
| OPT2031 | | Wenglor mounting bracket, right-angle, nickel plated brass. For use with OPT series 50x50mm photoelectric sensors. | PDF | 0.24 |
| OPT2038 | | Wenglor mounting bracket, right-angle, vertical and horizontal adjustment, 304 stainless steel. For use with OPT series 50x50mm photoelectric sensors. | PDF | 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] |
| <u>OPT2122</u> | | 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 | <u>PDF</u> | 0.19 |
| <u>OPT2123</u> | | 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 | <u>PDF</u> | 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) |
| OPT2109 | | Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel. | PDF | 0.41 (185.97) |
| OPT2110 | | Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel. | PDF | 0.60 (272.16) |
| OPT2111 | | Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel. | PDF | 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) |
| OPT2108 | | Wenglor mounting bracket, right-angle, nickel plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111. | PDF | 0.07 (31.8) |

