

Modular Ring Light

Red-cyan light, 80 mm

OPT2424

Part Number



- 4 sectors selectable
- Bicolor
- Highly modular illumination platform
- No external control required
- Overdrive
- Quick and easy replacement of accessories

The modular ring lights are suitable for many illuminating forms on a smaller visual field $< \varnothing 130$ mm. Based on the diffuse ring light, the way the light is scattered and directed at the target can be changed by adding a low angle attachment or a dome attachment. Each ring light has two bi-color light colors: Red/Cyan or White/IR. The lights can be operated in continuous mode or synchronized with the Machine Vision Camera in strobe mode or strobe mode with increased intensity (overdrive). Each ring light can be controlled via a lockable control panel and a standardized 5-pin M12 connector for power and strobe signals. The control panel can be disabled via the secondary connection, which can also be used to control individual sectors and to control the color remotely.

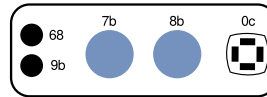
Technical Data

| Optical Data | |
|---|------------------------------|
| Light Source | Red-cyan light |
| Wavelength | 625...505 nm |
| Beam angle | $\pm 65^\circ$ |
| Light output | ≤ 19200 Lux |
| Electrical Data | |
| Supply Voltage | 21,6...30 V DC |
| Power | 9 W |
| Peak power | 51 W |
| Current Consumption Continuous Mode (Ub = 24 V) | 0,38 A |
| Current consumption strobe mode (Ub = 24 V) | 2,13 A |
| Flash Duration | 2 ms |
| Duty Cycle | $< 0,1$ |
| Duty cycle | 15 μ s |
| Fall time | 10 μ s |
| Input signal | PNP/NPN |
| Temperature Range | -10...40 $^\circ$ C |
| Storage temperature | -20...60 $^\circ$ C |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Protection Class | III |
| Dimming | 0...10 V \approx 100...30% |
| Overdrive | yes |
| Mechanical Data | |
| Housing Material | Aluminum, PMMA, ABS |
| Degree of Protection | IP65 |
| Optic Cover | PMMA |
| Connection | M12 \times 1; 5-pin |
| Max. cable length | 40 m |
| Camera aperture inner diameter | 80 mm |
| Weight | < 400 g |
| Function | |
| Operating modes | Continuous, Strobe Overdrive |
| Connection Diagram No. | 007 |
| Control Panel No. | T18 |
| Suitable Mounting Technology No. | 927 |

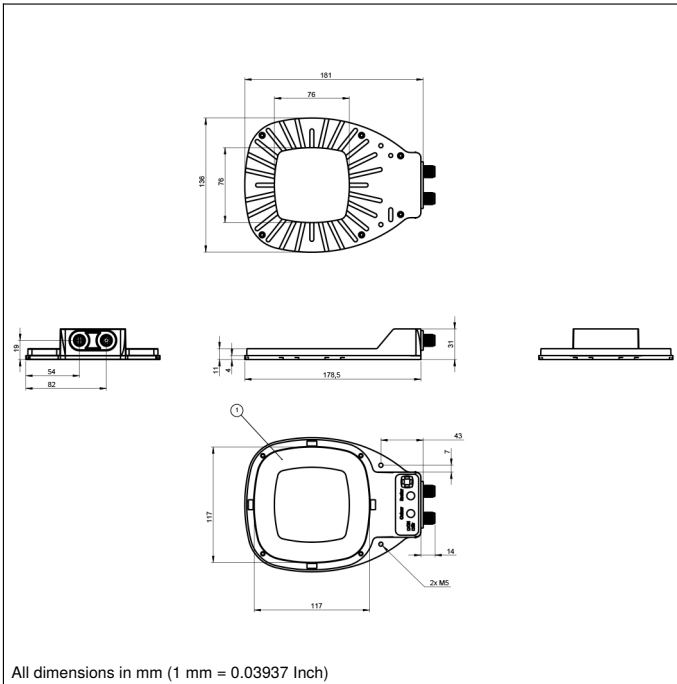
Complementary Products

- Dome accessory OPT2428/29
- Low angle accessory OPT2430/31
- Mounting bracket OPT2434

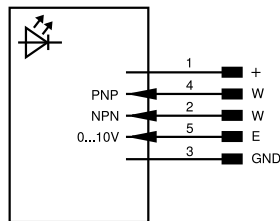
Ctrl. Panel

T18


- 0c = sector selection indicator
- 68 = supply voltage indicator
- 7b = Color Selection Button
- 8b = Sector Selection Button
- 9b = Strobe Mode Indicator



All dimensions in mm (1 mm = 0.03937 Inch)

007


Legend

| | | | | | |
|---------------------|--|----------------------|--------------------------------|--|---------------------|
| + | Supply Voltage + | nc | Not connected | EN _{RS422} | Encoder B/B̄ (TTL) |
| - | Supply Voltage 0 V | U | Test Input | ENA | Encoder A |
| ~ | Supply Voltage (AC Voltage) | Ū | Test Input inverted | EN _b | Encoder B |
| A | Switching Output (NO) | W | Trigger Input | AMIN | Digital output MIN |
| Ā | Switching Output (NC) | W- | Ground for the Trigger Input | AMAX | Digital output MAX |
| V | Contamination/Error Output (NO) | O | Analog Output | AOK | Digital output OK |
| V̄ | Contamination/Error Output (NC) | O- | Ground for the Analog Output | SY In | Synchronization In |
| E | Input (analog or digital) | BZ | Block Discharge | SY OUT | Synchronization OUT |
| T | Teach Input | Amv | Valve Output | OLT | Brightness output |
| Z | Time Delay (activation) | a | Valve Control Output + | M | Maintenance |
| S | Shielding | b | Valve Control Output 0 V | rsv | Reserved |
| RxD | Interface Receive Path | SY | Synchronization | Wire Colors according to DIN IEC 60757 | |
| TxD | Interface Send Path | SY- | Ground for the Synchronization | BK | Black |
| RDY | Ready | E+ | Receiver-Line | BN | Brown |
| GND | Ground | S+ | Emitter-Line | RD | Red |
| CL | Clock | ± | Grounding | OG | Orange |
| E/A | Output/Input programmable | SnR | Switching Distance Reduction | YE | Yellow |
| IO-Link | | Rx+/- | Ethernet Receive Path | GN | Green |
| PoE | Power over Ethernet | Tx+/- | Ethernet Send Path | BU | Blue |
| IN | Safety Input | Bus | Interfaces-Bus A(+)/B(-) | VT | Violet |
| OSSD | Safety Output | La | Emitted Light disengageable | GY | Grey |
| Signal | Signal Output | Mag | Magnet activation | WH | White |
| BI_D+/- | Ethernet Gigabit bidirect. data line (A-D) | RES | Input confirmation | PK | Pink |
| EN _{RS422} | Encoder 0-pulse 0/0̄ (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |
| PT | Platinum measuring resistor | EN _{AR5422} | Encoder A/Ā (TTL) | | |

