

Flat Dome Light

Red light, 400 × 400 mm

LFDR401

Part Number



- Easy and flexible installation
- High homogeneity
- High performance: high intensity even in continuous mode
- No external control required

The LFD series flat dome lights are high-diffuse lights with camera connection. Due to their intense luminous flux and high homogeneity, they are perfectly suited for large-area applications such as robot-assisted pick and place. They can be used in continuous mode or synchronized with the Machine Vision Camera in strobe mode via PNP or NPN inputs. The illumination is extremely homogeneous with very narrow edges (4 mm), so the usable surface is very large and integration is very easy – thanks, among other things, to the T-slot mounting and anchor point around the housing. The camera and lighting can be easily coupled using the special camera brackets on the back of the lighting. The housing is designed like an LED backlight, but has a camera hole in the middle for positioning the camera.

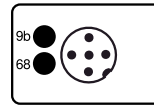
Technical Data

| Optical Data | |
|---|----------------------|
| Light Source | Red Light |
| Wavelength | 630 nm |
| Red light output | 144 W/m ² |
| Electrical Data | |
| Supply Voltage | 21,6...26,4 V DC |
| Power | 90,24 W |
| Current Consumption Continuous Mode (U _b = 24 V) | 3,76 A |
| Rise time | 15 μs |
| Fall time | 10 μs |
| Input signal | PNP/NPN |
| Temperature Range | -10...40 °C |
| Storage temperature | -20...60 °C |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Protection Class | III |
| Dimming | 0...10 V ± 100...30% |
| Overdrive | no |
| Mechanical Data | |
| Luminous Field Length (L) | 400 mm |
| Luminous Field Width (W) | 400 mm |
| Luminous Field | 400 × 400 mm |
| Housing Material | Aluminum, anodised |
| Degree of Protection | IP40 |
| Optic Cover | Plastic, PMMA |
| Connection | M12 × 1; 5-pin |
| Max. cable length | 10 m |
| Camera aperture inner diameter | 65 mm |
| Function | |
| Operating modes | Continuous, Strobe |
| Connection Diagram No. | 007 |
| Control Panel No. | T16 |
| Suitable Mounting Technology No. | 926 |

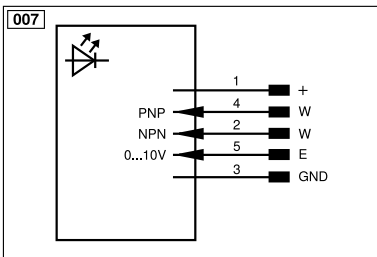
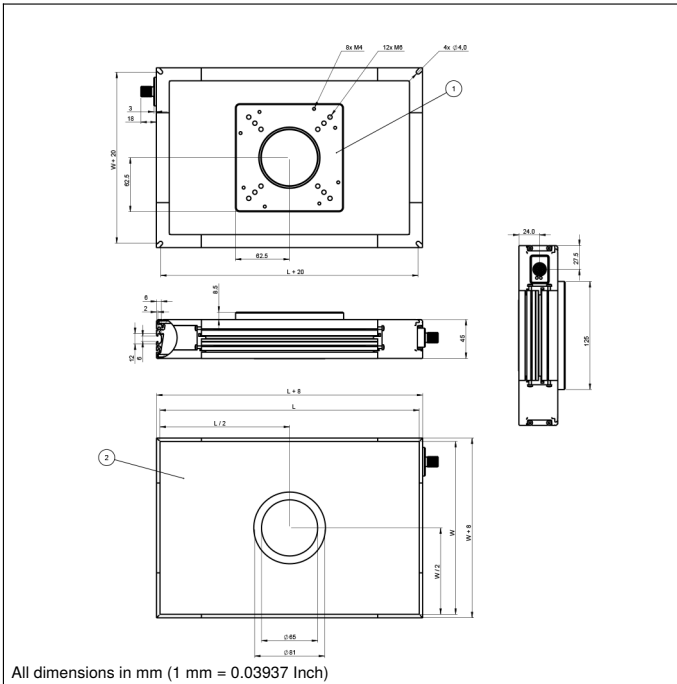
Complementary Products

| |
|--------------------------|
| ZC4G003 connection cable |
| ZDCG004 connection cable |
| ZDCG005 connection cable |

Ctrl. Panel

T16


68 = supply voltage indicator
 9b = Strobe Mode Indicator



| Legend | | | |
|-----------|--|--|--------------------------------|
| + | Supply Voltage + | nc | Not connected |
| - | Supply Voltage 0 V | U | Test Input |
| ~ | Supply Voltage (AC Voltage) | Ū | Test Input inverted |
| A | Switching Output (NO) | W | Trigger Input |
| Ā | Switching Output (NC) | W- | Ground for the Trigger Input |
| V | Contamination/Error Output (NO) | O | Analog Output |
| ȳ | Contamination/Error Output (NC) | O- | Ground for the Analog Output |
| E | Input (analog or digital) | BZ | Block Discharge |
| T | Teach Input | Amv | Valve Output |
| Z | Time Delay (activation) | a | Valve Control Output + |
| S | Shielding | b | Valve Control Output 0 V |
| RxD | Interface Receive Path | SY | Synchronization |
| TxD | Interface Send Path | SY- | Ground for the Synchronization |
| RDY | Ready | E+ | Receiver-Line |
| GND | Ground | S+ | Emitter-Line |
| CL | Clock | ± | Grounding |
| E/A | Output/Input programmable | SnR | Switching Distance Reduction |
| IO-Link | | Rx+/- | Ethernet Receive Path |
| PoE | Power over Ethernet | Tx+/- | Ethernet Send Path |
| IN | Safety Input | Bus | Interfaces-Bus A(+)/B(-) |
| OSSD | Safety Output | La | Emitted Light disengageable |
| Signal | Signal Output | Mag | Magnet activation |
| BI_D+/- | Ethernet Gigabit bidirect. data line (A-D) | RES | Input confirmation |
| ENo RS422 | Encoder 0-pulse 0/0 (TTL) | EDM | Contact Monitoring |
| PT | Platinum measuring resistor | ENARs422 | Encoder A/Ā (TTL) |
| | | ENBRs422 | Encoder B/B̄ (TTL) |
| | | ENA | Encoder A |
| | | ENB | Encoder B |
| | | AMIN | Digital output MIN |
| | | AMAX | Digital output MAX |
| | | AOK | Digital output OK |
| | | SY In | Synchronization In |
| | | SY OUT | Synchronization OUT |
| | | OLT | Brightness output |
| | | M | Maintenance |
| | | rsv | Reserved |
| | | Wire Colors according to DIN IEC 60757 | |
| | | BK | Black |
| | | BN | Brown |
| | | RD | Red |
| | | OG | Orange |
| | | YE | Yellow |
| | | GN | Green |
| | | BU | Blue |
| | | VT | Violet |
| | | GY | Grey |
| | | WH | White |
| | | PK | Pink |
| | | GNYE | Green/Yellow |