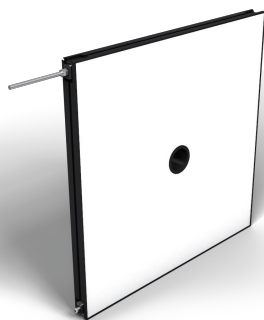


# Flat Dome Light

red light, 700 × 700 mm

## LFDR701

Part Number



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

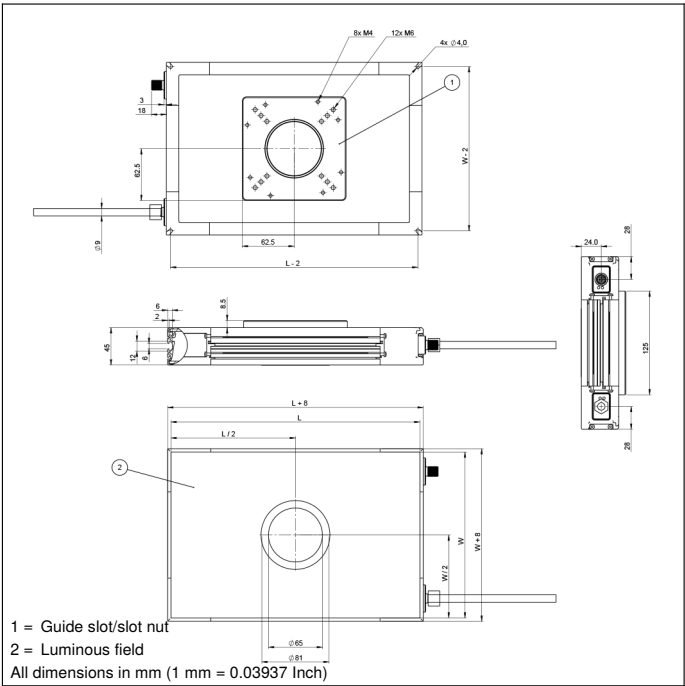
The LFD series flat dome lights are high-diffuse lights with a camera connection. Due to their intense luminous flux and high homogeneity, they are perfectly suited for large-area applications such as robot-assisted pick-and-place. They can be used in continuous mode or synchronized with the machine vision camera in strobe mode via PNP or NPN inputs. The light is characterized by its narrow edges (4 mm) and easy mounting thanks to the T-slot fastener and the anchor point around the housing. Cameras can be connected easily on the rear of the light.

### Technical Data

| Optical Data                                                |                      |
|-------------------------------------------------------------|----------------------|
| Light Source                                                | Red Light            |
| Wavelength                                                  | 630 nm               |
| Red light output                                            | 144 W/m <sup>2</sup> |
| Electrical Data                                             |                      |
| Supply Voltage                                              | 21,6...26,4 V DC     |
| Power                                                       | 276 W                |
| Current Consumption Continuous Mode (U <sub>b</sub> = 24 V) | 11,5 A               |
| Rise time                                                   | 15 µs                |
| Fall time                                                   | 10 µs                |
| Input signal                                                | NPN                  |
| Input signal                                                | PNP                  |
| 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)                                   | 700 mm               |
| Luminous Field Width (W)                                    | 700 mm               |
| Luminous Field                                              | 700 × 700 mm         |
| Housing Material                                            | Aluminum, anodised   |
| Housing Material                                            | Plastic, ABS-GF      |
| Degree of Protection                                        | IP50                 |
| UL Enclosure Type                                           | 1                    |
| 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                  |
| Suitable Mounting Technology No.                            | 926                  |

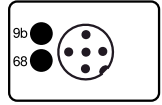
### Complementary Products

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

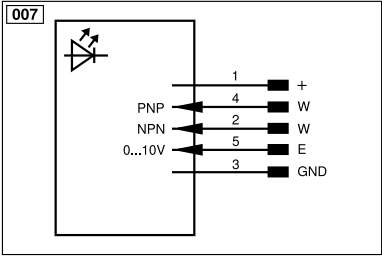


Ctrl. Panel

T16



68 = Power LED  
9b = Strobe Mode Indicator



| Legend    |                                            |       |                                |                                        |                     |
|-----------|--------------------------------------------|-------|--------------------------------|----------------------------------------|---------------------|
| +         | Supply Voltage +                           | PT    | Platinum measuring resistor    | ENAR5422                               | Encoder A/Ā (TTL)   |
| -         | Supply Voltage 0 V                         | nc    | Not connected                  | ENBR5422                               | Encoder B/B̄ (TTL)  |
| ~         | Supply Voltage (AC Voltage)                | U     | Test Input                     | ENa                                    | Encoder A           |
| A         | Switching Output (NO)                      | Ū     | Test Input inverted            | ENb                                    | Encoder B           |
| Ā         | Switching Output (NC)                      | W     | Trigger Input                  | AMIN                                   | Digital output MIN  |
| V         | Contamination/Error Output (NO)            | W-    | Ground for the Trigger Input   | AMAX                                   | Digital output MAX  |
| Ū         | Contamination/Error Output (NC)            | O     | Analog Output                  | AOK                                    | Digital output OK   |
| E         | Input (analog or digital)                  | O-    | Ground for the Analog Output   | SY In                                  | Synchronization In  |
| T         | Teach Input                                | BZ    | Block Discharge                | SY OUT                                 | Synchronization OUT |
| R         | Reset 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 |                                        |                     |
| RDY       | Ready                                      | E+    | Receiver-Line                  | BK                                     | Black               |
| GND       | Ground                                     | S+    | Emitter-Line                   | BN                                     | Brown               |
| CL        | Clock                                      | ≡     | Grounding                      | RD                                     | Red                 |
| E/A       | Output/Input programmable                  | SnR   | Switching Distance Reduction   | OG                                     | Orange              |
| IO-Link   | IO-Link                                    | Rx+/- | Ethernet Receive Path          | YE                                     | Yellow              |
| PoE       | Power over Ethernet                        | Tx+/- | Ethernet Send Path             | GN                                     | Green               |
| IN        | Safety Input                               | Bus   | Interfaces-Bus A(+)/B(-)       | BU                                     | Blue                |
| QSSD      | Safety Output                              | La    | Emitted Light disengageable    | VT                                     | Violet              |
| Signal    | Signal Output                              | Mag   | Magnet activation              | GY                                     | Grey                |
| BI_D+/-   | Ethernet Gigabit bidirect. data line (A-D) | RES   | Input confirmation             | WH                                     | White               |
| ENo RS422 | Encoder 0-pulse 0/0 (TTL)                  | EDM   | Contact Monitoring             | PK                                     | Pink                |
|           |                                            |       |                                | GNYE                                   | Green/Yellow        |