# Bar Light OverDrive
**infrared, 750 mm**

# LBOI701
Part Number



- **Create patented curve effect to reduce LED hot spots**
- **Flexibility: expand the beam angle with an Angle Changer**
- **No external control required**
- **OverDrive**

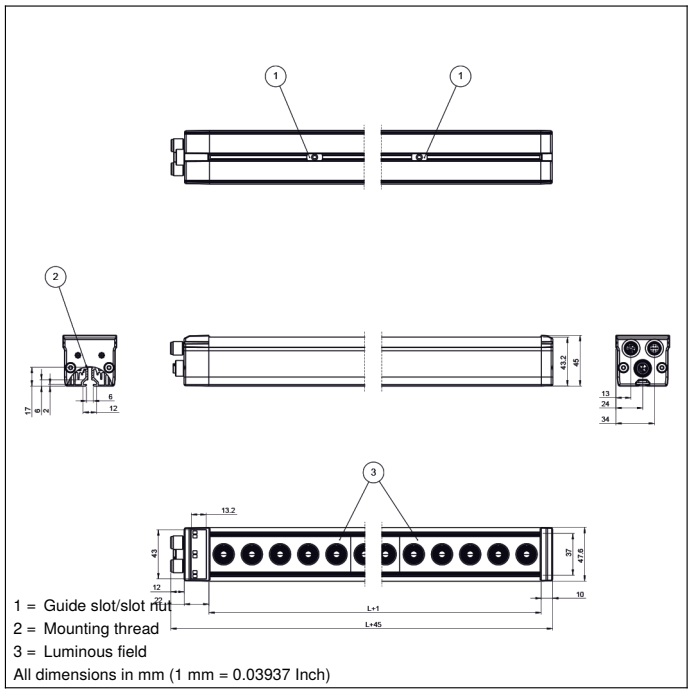
wenglor bar lights from the LBO series are suitable for both small and large working distances. The direct lights can create lighting effects like bright field, low angle of incidence, dark field and dome lighting. Some line scanning applications are also possible. The LBO bar lights can be operated in continuous mode with high intensity or synchronized with the machine vision camera in strobe mode with increased luminosity (OverDrive). In combination with the ZBAG angle changers, the beam angle can be enlarged and designed flexibly.

## Technical Data

| | |
|---|---|
| **Optical Data** | |
| Light Source | Infrared Light |
| Wavelength | 850 nm |
| Risk Group (EN 62471) | 1 |
| Beam angle | ± 7 ° |
| Infrared light output | 578,33 W/m² |
| Measuring point distance | 200 mm |
| Compatible with | Angle Changer |
| **Environmental conditions** | |
| Temperature Range | -10...40 °C |
| Storage temperature | -20...60 °C |
| Atmospheric humidity | < 80%, non-condensing |
| **Electrical Data** | |
| Supply Voltage | 21,6...26,4 V DC |
| Power | 49 W |
| Peak power | 288 W |
| Current Consumption Continuous Mode (Ub = 24 V) | 2,8 A |
| Current consumption flash mode OverDrive (operating voltage = 24 V) | 12 A |
| Flash duration (max.) | 2 ms |
| Duty cycle (max.) | 5 % |
| Rise time | 4 µs |
| Fall time | 30 µs |
| Input signal | NPN |
| Input signal | PNP |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Protection Class | III |
| Dimming | 0...10 V ≙ 100...30% |
| OverDrive | yes |
| **Mechanical Data** | |
| Luminous Field Length (L) | 750 mm |
| Luminous Field Width (W) | 31,5 mm |
| Luminous Field | 750 × 31,5 mm |
| Housing Material | Aluminum, anodised |
| Housing Material | Plastic, ABS |
| Housing Material | Plastic, PC |
| Degree of Protection | IP65 |
| UL Enclosure Type | 1 |
| Optic Cover | Plastic, PMMA |
| Connection | 2 × M12; 5-pin, 1 × M12; 4-pin |
| Max. cable lenght | 112 m |
| **Function** | |
| Operating modes | Continuous, Strobe, Strobe Overdrive |
| Connection Diagram No. | 007 |
| Suitable Mounting Technology No. | 925 |

## Complementary Products

| |
|---|
| Connection cables |
| ZBAG angle changer |
| ZBAZ001 bar clamp |




1 = Guide slot/slot nut
2 = Mounting thread
3 = Luminous field
All dimensions in mm (1 mm = 0.03937 Inch)

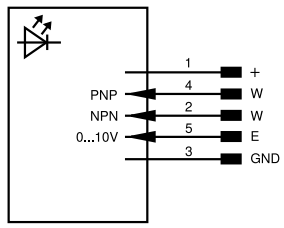
## Ctrl. Panel

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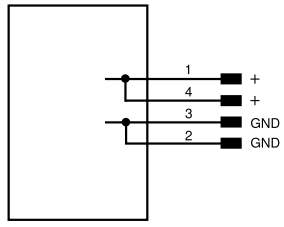



68 = Power LED
9b = Strobe Mode Indicator

007




010




| Legend | | | | | |
|---|---|---|---|---|---|
| + | Supply Voltage + | PT | Platinum measuring resistor | ENARS422 | Encoder A/Ā (TTL) |
| – | Supply Voltage 0 V | nc | Not connected | ENBRS422 | 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 |
| V̄ | 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 | 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 | ower 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 |
| EN0 RS422 | Encoder 0-pulse 0/0̄ (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |

Specifications are subject to change without notice V1-14.07.2026