

# Bar Light Diffuse

infrared, 875 mm

## LBDI801

Part Number



- No external control required
- No LED hot spots
- Very diffuse light

wenglor's LBD series bar lights are highly diffuse luminaires that are perfect for diffuse illumination at low angles of incidence, direct illumination at low working distances, and backlight illumination of specific features in the visual field. The LBD bar lights can be used in continuous mode or synchronized with the Machine Vision Camera in strobe mode via PNP or NPN inputs. The integrated power control and flexible mounting options make the illumination very easy to install and perfect for a wide range of applications in industrial image processing and identification.

### Technical Data

#### Optical Data

|                       |                |
|-----------------------|----------------|
| Light Source          | Infrared Light |
| Wavelength            | 850 nm         |
| Risk Group (EN 62471) | 1              |
| Beam angle            | ± 65 °         |
| Infrared light output | 178 W/m²       |

#### Electrical Data

|                                                             |                      |
|-------------------------------------------------------------|----------------------|
| Supply Voltage                                              | 21,6...26,4 V DC     |
| Power                                                       | 67,2 W               |
| Current Consumption Continuous Mode (U <sub>b</sub> = 24 V) | 2,8 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

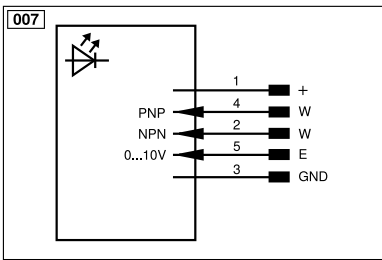
|                           |                    |
|---------------------------|--------------------|
| Luminous Field Length (L) | 875 mm             |
| Luminous Field Width (W)  | 31,5 mm            |
| Luminous Field            | 875 × 31,5 mm      |
| Housing Material          | Aluminum, anodised |
| Degree of Protection      | IP65               |
| Optic Cover               | Plastic, PMMA      |
| Connection                | M12 × 1; 5-pin     |
| Max. cable length         | 23 m               |

#### Function

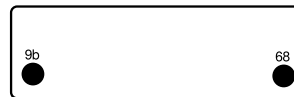
|                                  |                    |
|----------------------------------|--------------------|
| Operating modes                  | Continuous, Strobe |
| Connection Diagram No.           | 007                |
| Control Panel No.                | T17                |
| Suitable Mounting Technology No. | 925                |

### Complementary Products

|                          |
|--------------------------|
| ZBAZ001 Bar clamp        |
| ZC4G003 connection cable |
| ZDCG004 connection cable |
| ZDCG005 connection cable |



T17



68 = supply voltage indicator  
9b = Strobe Mode Indicator

| Legend                                                                              |                                            |                      |                                |                                        |                     |
|-------------------------------------------------------------------------------------|--------------------------------------------|----------------------|--------------------------------|----------------------------------------|---------------------|
| +                                                                                   | Supply Voltage +                           | nc                   | Not connected                  | EN <sub>BRG422</sub>                   | Encoder B/B̄ (TTL)  |
| -                                                                                   | Supply Voltage 0 V                         | U                    | Test Input                     | EN <sub>A</sub>                        | Encoder A           |
| ~                                                                                   | Supply Voltage (AC Voltage)                | Ü                    | Test Input inverted            | EN <sub>B</sub>                        | Encoder B           |
| A                                                                                   | Switching Output (NO)                      | W                    | Trigger Input                  | AM <sub>IN</sub>                       | Digital output MIN  |
| Ä                                                                                   | Switching Output (NC)                      | W-                   | Ground for the Trigger Input   | AM <sub>AX</sub>                       | Digital output MAX  |
| V                                                                                   | Contamination/Error Output (NO)            | O                    | Analog Output                  | AOK                                    | Digital output OK   |
| Ů                                                                                   | 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                                | AM <sub>v</sub>      | 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                  |                                        |                     |
| GND                                                                                 | Ground                                     | S+                   | Emitter-Line                   |                                        |                     |
| CL                                                                                  | Clock                                      | ±                    | Grounding                      |                                        |                     |
| E/A                                                                                 | Output/Input programmable                  | SnR                  | Switching Distance Reduction   |                                        |                     |
|  | 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                |
| OSSD                                                                                | 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               |
| EN <sub>0 RS422</sub>                                                               | Encoder 0-pulse 0/Ü (TTL)                  | EDM                  | Contact or Monitoring          | PK                                     | Pink                |
| PT                                                                                  | Platinum measuring resistor                | EN <sub>ARs422</sub> | Encoder A/Ä (TTL)              | GN <sub>YE</sub>                       | Green/Yellow        |