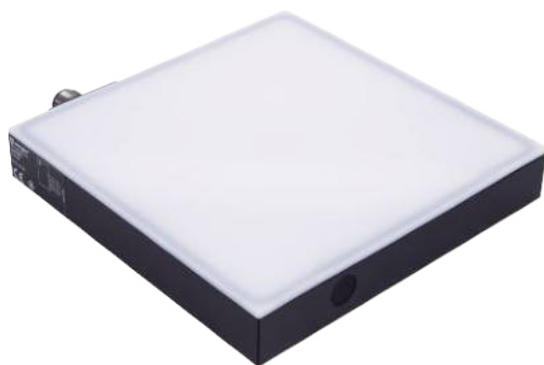


# Backlight

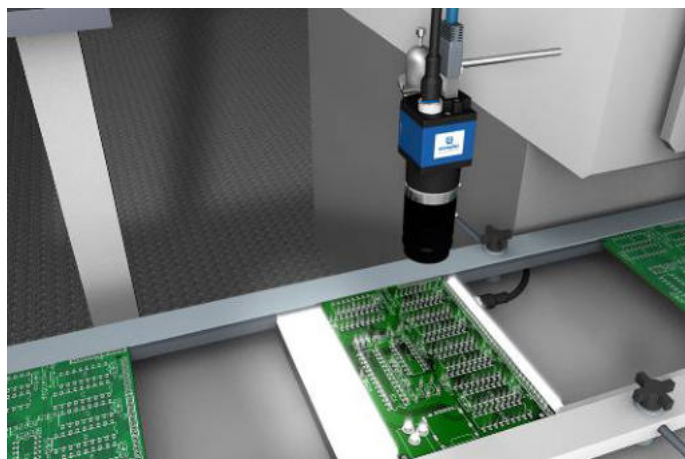
## ZVZF301

Part Number



- Continuous mode or flash mode synchronized with the camera
- Diffuse light for transmitted light and incident light applications
- Rugged housing (IP67) with minimal thickness and narrow framing

wenglor backlights are ideally suited for vision applications in which large areas need to be illuminated. They can be operated in the continuous mode, or synchronized to the digital camera in the flash mode. Thanks to their diffuse light, the backlights are ideal for applications with transmitted light or incident light. Above all in systems where space is limited, users profit from the rugged housing (IP67) with minimal thickness and narrow framing, and at the same time from the large illuminated surface area.



### Technical Data

#### Optical Data

|                             |                         |
|-----------------------------|-------------------------|
| Light Source                | White Light             |
| Color temperature           | 5000 K                  |
| Service Life (T = +25 °C)   | 100000 h                |
| Luminance (Continuous Mode) | 7400 cd/m <sup>2</sup>  |
| Luminance (Flash Mode)      | 31000 cd/m <sup>2</sup> |

#### Electrical Data

|                                                             |               |
|-------------------------------------------------------------|---------------|
| Supply Voltage                                              | 18...30 V DC  |
| Current Consumption Flash Mode (U <sub>b</sub> = 24 V)      | < 2200 mA     |
| Current Consumption Continuous Mode (U <sub>b</sub> = 24 V) | < 400 mA      |
| Flash Duration                                              | 17...30000 µs |
| Duty Cycle                                                  | < 0,2         |
| Temperature Range                                           | -30...50 °C   |
| Storage temperature                                         | -30...60 °C   |
| Short Circuit Protection                                    | yes           |
| Reverse Polarity Protection                                 | yes           |
| Overload Protection                                         | yes           |
| Protection Class                                            | III           |

#### Mechanical Data

|                      |                    |
|----------------------|--------------------|
| Luminous field       | 120 × 120 mm       |
| Housing Material     | Aluminum, anodised |
| Optic Cover          | PMMA               |
| Degree of Protection | IP67               |
| Connection           | M12 × 1; 4/5-pin   |

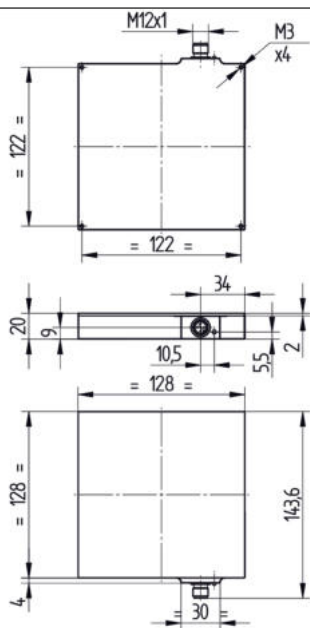
#### Safety-relevant Data

|                        |          |
|------------------------|----------|
| MTTFd (EN ISO 13849-1) | 196,39 a |
|------------------------|----------|

|                                   |     |
|-----------------------------------|-----|
| Connection Diagram No.            | 181 |
| Connection Table No.              | 60  |
| Suitable Connection Equipment No. | 37  |

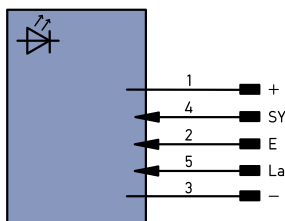
### Complementary Products

Connection Cable ZC4G001



All dimensions in mm (1 mm = 0.03937 Inch)

181



#### Legend

|           |                                            |       |                                |
|-----------|--------------------------------------------|-------|--------------------------------|
| +         | Supply Voltage +                           | PT    | Platinum measuring resistor    |
| -         | Supply Voltage 0 V                         | nc    | not connected                  |
| ~         | Supply Voltage (AC Voltage)                | U     | Test Input                     |
| A         | Switching Output (NO)                      | U     | Test Input inverted            |
| Ā         | Switching Output (NC)                      | W     | Trigger Input                  |
| V         | Contamination/Error Output (NO)            | W-    | Ground for the Trigger Input   |
| Ṽ         | Contamination/Error Output (NC)            | O     | Analog Output                  |
| E         | Input (analog or digital)                  | O-    | Ground for the Analog Output   |
| T         | Teach Input                                | BZ    | Block Discharge                |
| Z         | Time Delay (activation)                    | AWV   | Valve Output                   |
| S         | Shielding                                  | a     | Valve Control Output +         |
| RxD       | Interface Receive Path                     | b     | Valve Control Output 0 V       |
| TxD       | Interface Send Path                        | SY    | Synchronization                |
| RDY       | Ready                                      | SY-   | Ground for the Synchronization |
| GND       | Ground                                     | E+    | Receiver-Line                  |
| CL        | Clock                                      | S+    | Emitter-Line                   |
| E/A       | Output/Input programmable                  | ⊕     | Grounding                      |
| IO-Link   | IO-Link                                    | SnR   | Switching Distance Reduction   |
| PoE       | Power over Ethernet                        | Rx+/- | Ethernet Receive Path          |
| IN        | Safety Input                               | Tx+/- | Ethernet Send Path             |
| OSSD      | Safety Output                              | Bus   | Interfaces-Bus A(+)/B(-)       |
| Signal    | Signal Output                              | La    | Emitted Light disengageable    |
| BI-D+/-   | Ethernet Gigabit bidirect. data line (A-D) | Mag   | Magnet activation              |
| EN0.05422 | Encoder 0-pulse 0-0 (TTL)                  | RES   | Input confirmation             |
|           |                                            | EDM   | Contact Monitoring             |

|           |                     |
|-----------|---------------------|
| EN0.05422 | Encoder A/Ā (TTL)   |
| EN0.05422 | 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 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 |