## Flat Light Infrared, 300 × 300 mm

**OPT2421** 

Part Number



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

wenglor backlights are ideally suited for machine vision applications (e.g. silhouette lighting) in areas from 200  $\times$  200 mm. They can be used in continuous mode or synchronized with the Machine Vision Camera in strobe mode via PNP or NPN inputs. Thanks to their diffused light, the backlights are ideal for applications with transmitted light or incident light. The illumination is extremely homogeneous with very small borders (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 on the entire housing of the illumination

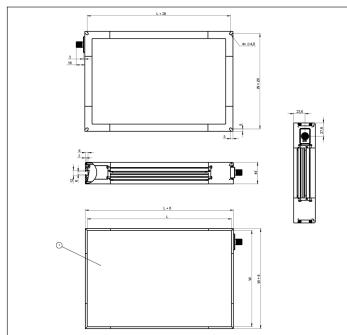
## **Technical Data**

| Optical Data                                    |   |  |  |  |
|---|---|--|--|--|
| Light Source                                    | Infrared Light                          |  |  |  |
| Wavelength                                      | 850 nm                                  |  |  |  |
| Risk Group (EN 62471)                           | 1                                       |  |  |  |
| Light output                                    | ≤ 45000 Lux                             |  |  |  |
| Electrical Data                                 |   |  |  |  |
| Supply Voltage                                  | 24 V DC                                 |  |  |  |
| Power   | 61,92 W                                 |  |  |  |
| Current Consumption Continuous Mode (Ub = 24 V) | 2,58 A                                  |  |  |  |
| Duty cycle                                      | 15 μs                                   |  |  |  |
| Fall time                                       | 10 <i>µ</i> s                           |  |  |  |
| Input signal                                    | PNP/NPN                                 |  |  |  |
| Temperature Range                               | -1040 °C                                |  |  |  |
| Storage temperature                             | -2060 °C                                |  |  |  |
| Short Circuit Protection                        | yes                                     |  |  |  |
| Reverse Polarity Protection                     | yes                                     |  |  |  |
| Overload Protection                             | yes                                     |  |  |  |
| Protection Class                                | III                                     |  |  |  |
| Dimming   | 010 V ≙ 10030%                          |  |  |  |
| Overdrive                                       | no                                      |  |  |  |
| Mechanical Data                                 |   |  |  |  |
| Luminous Field Length (L)                       | 300 mm                                  |  |  |  |
| Luminous Field Width (W)                        | 300 mm                                  |  |  |  |
| Luminous Field                                  | 300 × 300 mm                            |  |  |  |
| Housing Material                                | Aluminum, fiberglass-<br>reinforced ABS |  |  |  |
| Degree of Protection                            | IP40                                    |  |  |  |
| Optic Cover                                     | PMMA (diffuse)                          |  |  |  |
| Connection                                      | M12 × 1; 5-pin                          |  |  |  |
| Max. cable lenght                               | 10 m                                    |  |  |  |
| Weight  | < 2200 g                                |  |  |  |
| Function  |   |  |  |  |
| Operating modes                                 | Continuous, Strobe                      |  |  |  |
| Connection Diagram No.                          | 007                                     |  |  |  |
| Control Panel No.                               | T16                                     |  |  |  |
| Suitable Mounting Technology No.                | 926                                     |  |  |  |

**Complementary Products** 

Mounting Bracket OPT2433



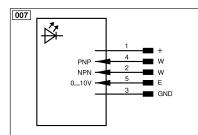


## Ctrl. Panel



68 = supply voltage indicator 9b = Strobe Mode Indicator

All dimensions in mm (1 mm = 0.03937 Inch)



| Legend    |  |          |                                |           |                                   |  |
|-----------|--|----------|--------------------------------|-----------|-----------------------------------|--|
| +         | Supply Voltage +                           | nc       | Not connected                  | ENBRS422  | Encoder B/B (TTL)                 |  |
| -         | Supply Voltage 0 V                         | U        | Test Input                     | ENa       | Encoder A                         |  |
| ~         | Supply Voltage (AC Voltage)                | Ū        | Test Input inverted            | ENв       | Encoder B                         |  |
| A         | Switching Output (NO)                      | W        | Trigger Input                  | Amin      | Digital output MIN                |  |
| Ā         | Switching Output (NC)                      | W-       | Ground for the Trigger Input   | Amax      | Digital output MAX                |  |
| V         | Contamination/Error Output (NO)            | 0        | Analog Output                  | Аок       | Digital output OK                 |  |
| V         | 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               |  |
| Т         | Teach Input                                | Amv      | Valve Output                   | Olt       | Brightness output                 |  |
| Z         | Time Delay (activation)                    | а        | Valve Control Output +         | M         | Maintenance                       |  |
| S         | Shielding                                  | b        | Valve Control Output 0 V       | rsv       | Reserved                          |  |
| RxD       | Interface Receive Path                     | SY       | Synchronization                | Wire Cold | 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                            |  |
| 0         | 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 0/0 (TTL)                  | EDM      | Contactor Monitoring           | GNYE      | Green/Yellow                      |  |
| PT        | Platinum measuring resistor                | ENARS422 | Encoder A/Ā (TTL)              |           |                                   |  |



