

# Bar Light

Infrared, 500 mm

## LBAI501

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 LBA series can be configured for almost any application. The direct lights provide a perfect balance between brightness and even light distribution, so the luminaires can be used at both small and large working distances. The bar light can be positioned around the product to create lighting effects such as bright field, low angle of incidence, dark field and dome lighting. It can also be used for some line scan applications. The LBA 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). When the LBA bar lights are combined with the ZBAG angle changers, the beam angle can then be increased and the lighting can be designed flexibly and controlled via the visual field.

### Technical Data

Optical Data	
Light Source	Infrared Light
Wavelength	850 nm
Risk Group (EN 62471)	1
Beam angle	± 7 °
Infrared light output	383 W/m <sup>2</sup>
Measuring point distance	200 mm
Compatible with	Angle Changer

Electrical Data	
Supply Voltage	21,6...26,4 V DC
Power	28,8 W
Peak power	115,2 W
Current Consumption Continuous Mode (U <sub>b</sub> = 24 V)	1,2 A
Current consumption strobe mode (U <sub>b</sub> = 24 V)	4,8 A
Flash Duration	30 ms
Duty Cycle	< 0,2
Rise time	15 μs
Fall time	10 μs
Input signal	PNP/NPN
Temperature Range	0...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	yes

Mechanical Data	
Luminous Field Length (L)	500 mm
Housing Material	Aluminum, anodised
Degree of Protection	IP65
Optic Cover	Plastic, PMMA
Connection	M12 × 1; 5-pin
Max. cable length	150 m

Function	
Operating modes	Continuous, Strobe

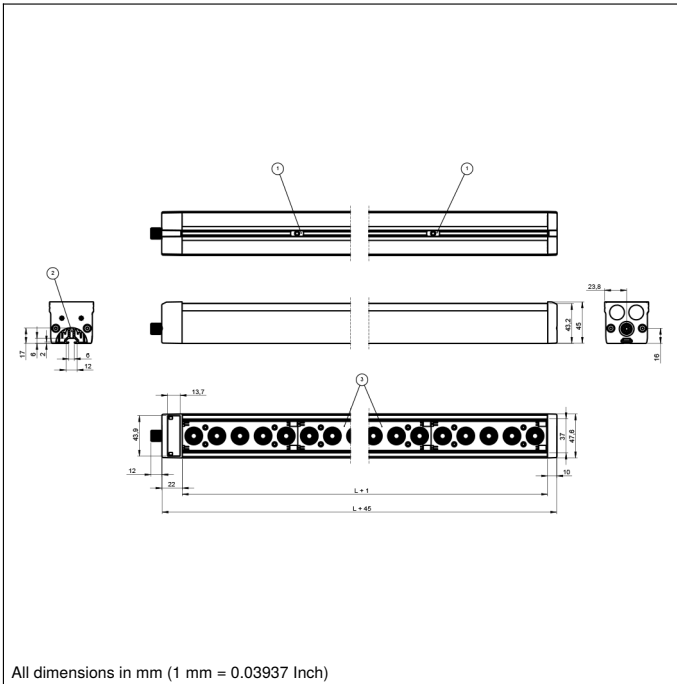
Connection Diagram No.	007
Control Panel No.	T17
Suitable Mounting Technology No.	925

### Complementary Products

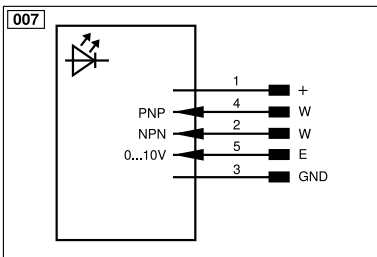
Angle changer ZBAG
ZBAZ001 Bar clamp
ZC4G003 connection cable
ZDCG004 connection cable
ZDCG005 connection cable

### Ctrl. Panel

**T17**

 68 = supply voltage indicator  
 9b = Strobe Mode Indicator


All dimensions in mm (1 mm = 0.03937 Inch)



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	Amv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
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
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contactor Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/Ā (TTL)
			Encoder B/B̄ (TTL)
			Encoder A
			Encoder B
			Digital output MIN
			Digital output MAX
			Digital output OK
			Synchronization In
			Synchronization OUT
			Brightness output
			Maintenance
			Reserved
			Wire Colors according to DIN 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

