## Bar Light White light, 125 mm

## LBAW101

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 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 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). In combination with the ZBAG angle changers, the beam angle can be enlarged and designed flexibly.

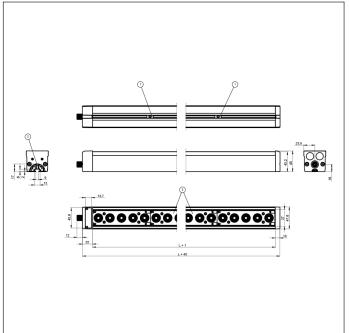
## **Technical Data**

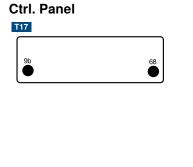
Light SourceWhite LightColor temperature6500 KBeam angle± 7 °White light output243000 LuxMeasuring point distance200 mmCompatible with200 mmCompatible with200 mmCompatible with200 mmEnvironmental conditions-Temperature Range040 °CStorage temperature-2060 °CAtmospheric humidity-2060 °CElectrical Data-Supply Voltage21.626,4 V DCPower7,2 WPeak power28,8 WCurrent Consumption Continuous Mode (Ub = 24 V)0,3 ACurrent consumption Continuous Mode (Ub = 24 V)1,2 AFlash Duration30 msDuty Cycle< 0,2Rise time15 µsFalt lime10 µsInput signalPNP/NPNShort Circuit ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V \exit 10030%OverdriveyesMechanical DataAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, ABS/GFDegree of ProtectionM12 x 1; 5-pinMax. cable lenght150 mFunctionYesConnection Diagram No.Continuous, StrobeControl Panel No.TitSuitable Mounting Technology No.925	Optical Data			
Beam angle $\pm$ 7 °White light output243000 LuxMeasuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions	Light Source	White Light		
White light output243000 LuxMeasuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions-2060 °CStorage temperature-2060 °CAtmospheric humidity<80%, non- condensingElectrical Data-21,626,4 V DCPower7,2 WPeak power28,8 WCurrent Consumption Continuous Mode (Ub = 24 V) Current consumption flash mode overdrive (operating voltage = 24 V)0,3 AFlash Duration30 msDuty Cycle<0,2	Color temperature	6500 K		
Measuring point distance200 mmCompatible withAngle ChangerEnvironmental conditionsTemperature Range040 °CStorage temperature-2060 °CAtmospheric humidity<80%, non- condensingElectrical DataSupply Voltage21,626,4 V DCPower7,2 WPeak power28,8 WCurrent Consumption Continuous Mode (Ub = 24 V)0,3 ACurrent Consumption flash mode overdrive (operating voltage = 24 V)1,2 AFlash Duration30 msDuty Cycle<0,2	Beam angle	±7°		
Compatible withAngle ChangerEnvironmental conditions $-2060 \ ^{\circ}C$ Storage temperature $-2060 \ ^{\circ}C$ Atmospheric humidity $-2060 \ ^{\circ}C$ Atmospheric humidity $-2060 \ ^{\circ}C$ Supply Voltage $21.626.4 \ ^{\circ}DC$ Power $7,2 \ ^{\circ}W$ Peak power $28.8 \ ^{\circ}W$ Current Consumption Continuous Mode (Ub = 24 V) $0.3 \ ^{\circ}A$ Current consumption flash mode overdrive (operating) $1.2 \ ^{\circ}A$ voltage = $24 \ ^{\circ}V$ $30 \ ^{\circ}Ms$ Flash Duration $30 \ ^{\circ}Ms$ Duty Cycle $< 0.2$ Rise time $15 \ \mu s$ Fall time $10 \ \mu s$ Input signalPNP/NPNShort Circuit ProtectionyesVoerload ProtectionyesProtection ClassIIIDimming $010 \ ^{\circ} 10030\%$ OverdriveyesMechanical DataLuminous, anodisedHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 $\times 1; 5 \ ^{\circ}pin$ Max. cable lenght150 mFunctionYesConnection Diagram No. $007$ Control Panel No. $117$	White light output	243000 Lux		
Environmental conditionsTemperature Range040 °CStorage temperature-2060 °CAtmospheric humidity-80%, non- condensingElectrical Data-2060 °CSupply Voltage21,626,4 V DCPower7,2 WPeak power28,8 WCurrent Consumption Continuous Mode (Ub = 24 V) Current consumption flash mode overdrive (operating voltage = 24 V)0,3 AFlash Duration30 msDuty Cycle<0,2	Measuring point distance	200 mm		
Temperature Range040 °CStorage temperature-2060 °CAtmospheric humidity<80%, non-	Compatible with	Angle Changer		
Storage temperature-2060 °C < $80\%$ , non- condensinaAtmospheric humidity $80\%$ , non- condensinaElectrical Data $30\%$ , non- condensinaSupply Voltage $21,626,4$ V DCPower $7,2$ WPeak power $28,8$ WCurrent Consumption Continuous Mode (Ub = 24 V) $0,3$ ACurrent consumption flash mode overdrive (operating voltage = $24$ V) $30$ msDuty Cycle $< 0,2$ Rise time $15 \mu$ sFall time $10 \mu$ sInput signalPNP/NPNShort Circuit ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010$ V $ eartholdshiftDusing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117$	Environmental conditions			
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Current Consumption Continuous Mode (Ub = 24 V) Current consumption flash mode overdrive (operating voltage = 24 V)0,3 A 1,2 AFlash Duration30 msDuty Cycle< 0,2	Power	7,2 W		
Current consumption flash mode overdrive (operating voltage = 24 V)1,2 AFlash Duration30 msDuty Cycle< 0,2	Peak power	28,8 W		
voltage = 24 V)I.2 AFlash Duration30 msDuty Cycle< 0,2		0,3 A		
Flash Duration30 msDuty Cycle< 0,2		1,2 A		
Rise time $15 \ \mu s$ Fall time $10 \ \mu s$ Input signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 \ V \le 10030\%$ OverdriveyesMechanical DataItalianLuminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionIperationOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117		30 ms		
Fall time10 $\mu$ sInput signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V $\pm$ 10030%OverdriveyesMechanical DataItalianLuminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 x 1; 5-pinMax. cable length150 mFunctionOO7Connection Diagram No.O7Control Panel No.T17	Duty Cycle	< 0,2		
Input signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V ≜ 10030%OverdriveyesMechanical DatayesLuminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable length150 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Rise time	15 μs		
Short Circuit Protection       yes         Reverse Polarity Protection       yes         Overload Protection       yes         Protection Class       III         Dimming       010 V ≜ 10030%         Overdrive       yes         Mechanical Data       yes         Luminous Field Length (L)       125 mm         Housing Material       Aluminum, anodised         Housing Material       Plastic, ABS/GF         Degree of Protection       IP65         Optic Cover       Plastic, PMMA         Connection       M12 × 1; 5-pin         Max. cable lenght       150 m         Function       Continuous, Strobe         Connection Diagram No.       007         Control Panel No.       117	Fall time	10 <i>µ</i> s		
Reverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V ± 10030%OverdriveyesMechanical DatayesLuminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesConnection Diagram No.007Control Panel No.117	Input signal	PNP/NPN		
Overload ProtectionyesProtection ClassIIIDimming $010 V \triangleq 10030\%$ OverdriveyesMechanical DatayesLuminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesContinuous, StrobeConnection Diagram No. $007$ Control Panel No. $117$	Short Circuit Protection	yes		
Protection ClassIIIDimming $010 V \le 10030\%$ OverdriveyesMechanical DataIIILuminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesConnection Diagram No. $007$ Control Panel No. $117$	Reverse Polarity Protection	yes		
Dimming010 V $\triangleq$ 10030%OverdriveyesMechanical DataImage: Constraint of the second se	Overload Protection	yes		
Overdrive     yes       Mechanical Data       Luminous Field Length (L)     125 mm       Housing Material     Aluminum, anodised       Housing Material     Plastic, ABS/GF       Degree of Protection     IP65       Optic Cover     Plastic, PMMA       Connection     M12 × 1; 5-pin       Max. cable lenght     150 m       Function     Uperating modes       Connection Diagram No.     007       Control Panel No.     117	Protection Class	Ш		
Mechanical Data         Luminous Field Length (L)       125 mm         Housing Material       Aluminum, anodised         Housing Material       Plastic, ABS/GF         Degree of Protection       IP65         Optic Cover       Plastic, PMMA         Connection       M12 × 1; 5-pin         Max. cable lenght       150 m         Function       Continuous, Strobe         Connection Diagram No.       007         Control Panel No.       T17	Dimming	010 V ≜ 10030%		
Luminous Field Length (L)125 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Overdrive	yes		
Housing MaterialAluminum, anodisedHousing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Mechanical Data			
Housing MaterialPlastic, ABS/GFDegree of ProtectionIP65Optic CoverPlastic, PMMAConnectionM12 × 1; 5-pinMax. cable lenght150 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Luminous Field Length (L)	125 mm		
Degree of Protection     IP65       Optic Cover     Plastic, PMMA       Connection     M12 × 1; 5-pin       Max. cable lenght     150 m       Function       Operating modes     Continuous, Strobe       Connection Diagram No.     007       Control Panel No.     117	Housing Material	Aluminum, anodised		
Optic Cover     Plastic, PMMA       Connection     M12 × 1; 5-pin       Max. cable lenght     150 m       Function     Operating modes       Connection Diagram No.     007       Control Panel No.     117	Housing Material	Plastic, ABS/GF		
Connection     M12 × 1; 5-pin       Max. cable lenght     150 m       Function     Continuous, Strobe       Operating modes     Continuous, Strobe       Connection Diagram No.     007       Control Panel No.     117	Degree of Protection	IP65		
Max. cable lenght     150 m       Function     Continuous, Strobe       Operating modes     Continuous, Strobe       Connection Diagram No.     007       Control Panel No.     117	Optic Cover	Plastic, PMMA		
Function         Operating modes       Continuous, Strobe         Connection Diagram No.       007         Control Panel No.       117	Connection	M12 × 1; 5-pin		
Operating modes     Continuous, Strobe       Connection Diagram No.     007       Control Panel No.     T17	Max. cable lenght	150 m		
Connection Diagram No. 007 Control Panel No. 117	Function			
Control Panel No.	Operating modes	Continuous, Strobe		
Control Panel No.	Connection Diagram No.	007		
Suitable Mounting Technology No. 925	_			
	Suitable Mounting Technology No.	925		

## **Complementary Products**

ZBAG angle changer ZBAZ001 bar clamp ZC4G003 connection cable ZDCG004 connection cable ZDCG005 connection cable

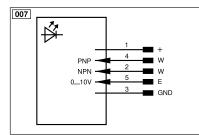






68 = supply voltage indicator 9b = Strobe Mode Indicator

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	ЕNв	Encoder B		
A	Switching Output (NO)	W	Trigger Input	Amin	Digital output MIN		
Ā	Switching Output (NC)	VV-	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)	0-	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 Colo	ire 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	<u> </u>	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)				

