LBLI801 Part Number



- Create patented curve effect to reduce LED hot spots
- Daisy chain
- Flexibility: expand the beam angle with an Angle Changer
- No external control required

wenglor bar lights from the LBL 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 LBL bar lights can be synchronized in continuous mode or in strobe mode with the machine vision camera and other LBL lights and operated without an additional power supply. In combination with the ZBAG angle changers, the beam angle can be enlarged and designed flexibly.

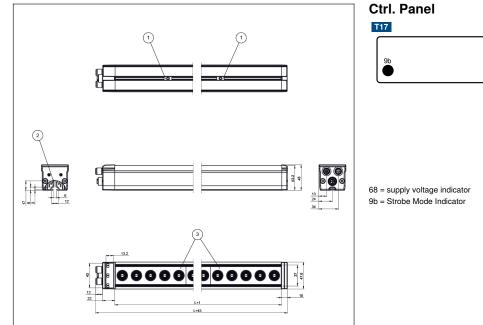
Technical Data

Optical DataLight SourceInfrared LightWavelength850 nmRisk Group (EN 62471)1Beam angle \pm 7 °Infrared light output95,75 W/m²Measuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions200 mmStorage temperature-2060 °CAtmospheric humidity<80%, non- condensingElectrical Data21.626,4 V DCSupply Voltage21.626,4 V DCPower67.2 WCurrent Consumption Continuous Mode (Ub = 24 V)2,8 ARise time15 μ sFall time10 μ sInput signalPNP/NPNShot Circuit ProtectionyesVerload ProtectionyesProtection ClassIIIDimming010 V \pm 10030%OverdriveanoMechanical Data21.5manLuminous Field Length (L)875 mmLuminous Field Length (L)875 mmLuminous Field Length (L)875 mmLuminous Field Length (L)875 mmLuminous Field With (W)31,5 mmLuminous Field Length (L)Plastic, ABSHousing MaterialPlastic, PCDegree of Protection3 × M12 × 1; 5-pinMax. cable length23 mFunction3 × M12 × 1; 5-pinMax. cable length No.Q07Connection Diagram No.Q07Control Panel No.925	loonnou butu			
Wavelength850 nmRisk Group (EN 62471)1Beam angle \pm 7 °Infrared light output95,75 W/m²Measuring point distance200 nmCompatible withAngle ChangerEnvironmental conditions	Optical Data			
Risk Group (EN 62471)1Beam angle \pm 7 °Infrared light output95,75 W/m²Measuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions-2060 °CStorage temperature<2060 °C	Light Source	Infrared Light		
Beam angle \pm 7 °Infrared light output95,75 W/m²Measuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions-Temperature Range040 °CStorage temperature-2060 °CAtmospheric humidity<80%, non- condensinoElectrical Data-Supply Voltage21,626,4 V DCPower67,2 WCurrent Consumption Continuous Mode (Ub = 24 V)2,8 ARise time15 μ sFall time10 μ sInput signalPNP/NPNShort Circuit ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V $ a$ 10030%OverdrivenoMechanical Data-Luminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Width (W)31,5 mmLuminous MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of Protection3 × M12 × 1; 5-pinMax. cable length23 mFunction23 mFunction23 mFunction23 mConnection Diagram No.007Control Panel No.117	Wavelength	850 nm		
Infrared light output95,75 W/m²Measuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions-2060 °CStorage temperature-2060 °CAtmospheric humidity<80%, non- condensinoElectrical Data-21,626,4 V DCSuppl Voltage21,626,4 V DCPower67,2 WCurrent Consumption Continuous Mode (Ub = 24 V)2,8 ARise time15 μsFall time10 μsInput signalPNP/NPNShort Circuit ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V ± 10030%OverdrivenoMechanical Data	Risk Group (EN 62471)	1		
Measuring point distance200 mmCompatible withAngle ChangerEnvironmental conditions $-2060 \ ^{\circ}C$ Storage temperature $-2060 \ ^{\circ}C$ Atmospheric humidity $< 80\%$, non- condensinoElectrical Data $21, 626, 4 \ V DC$ Supply Voltage $21, 626, 4 \ V DC$ Power $67, 2 \ W$ Current Consumption Continuous Mode (Ub = 24 V) $2, 8 \ A$ Rise time $15 \ \mu s$ Fall time $10 \ \mu s$ Input signalPNP/NPNShort Circuit ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 \ V = 10030\%$ OverdrivenoMechanical DataLuminous Field Length (L) $875 \ mm$ Luminous Field Width (W) $31,5 \ mm$ Luminous Field Width (W) $31,5 \ mm$ Luminous Field Vidth (W) $23 \ mm$ Luminous Field Length $23 \ mm$ Housing MaterialPlastic, PCDegree of Protection $3 \ M12 \ x 1; 5 \ pin$ Max. cable lenght $23 \ mm$ Function $23 \ mm$ Function $23 \ mm$ Function 007 Connection Diagram No. 007 Control Panel No. 117	Beam angle	±7°		
Compatible withAngle ChangerEnvironmental conditions $-2060 \ ^{\circ}C$ Storage temperature $-2060 \ ^{\circ}C$ Atmospheric humidity $-2060 \ ^{\circ}C$ Supply Voltage $21, 626, 4 \ V DC$ Power $67, 2 \ W$ Current Consumption Continuous Mode (Ub = 24 V) $2, 8 \ A$ Rise time $15 \ \mu s$ Fall time $10 \ \mu s$ Input signalPNP/NPNShort Circuit ProtectionyesPortection ClassIIIDimming $010 \ V \le 10030\%$ Overload ProtectionyesProtection ClassIIIDimming $010 \ V \le 10030\%$ OverdrivenoMechanical DataUuminous Field Length (L)Luminous Field Length (L) $875 \ mm$ Luminous Field Width (W) $31,5 \ mm$ Housing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of Protection $3 \ M12 \ x 1; 5 \ pin$ Max. cable length $23 \ mm$ Function Diagram No. 007 Control Panel No. 117	Infrared light output	95,75 W/m ²		
Invironmental conditionsTemperature Range $040 ^{\circ}$ CStorage temperature-2060 $^{\circ}$ CAtmospheric humidity<80%, non-	Measuring point distance	200 mm		
Temperature Range040 °CStorage temperature-2060 °CAtmospheric humidity<80%, non-	Compatible with	Angle Changer		
Storage temperature-2060 °C < 80%, non- condensingAtmospheric humidity<80%, non- condensingElectrical DataSupply Voltage21,626,4 V DCPower $67,2$ WCurrent Consumption Continuous Mode (Ub = 24 V)2,8 ARise time15 μ sFall time10 μ sInput signalPNP/NPNShort Circuit ProtectionyesVerload ProtectionyesProtection ClassIIIDimming010 V \triangleq 10030%OverdivenoMechanical DataLuminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Midth (W)31,5 mmHousing MaterialPlastic, ABSHousing MaterialPlastic, CDegree of Protection3 × M12 × 1; 5-pinMax. cable length23 mFunction23 mConnection Diagram No.007Control Panel No.117	Environmental conditions			
Atmospheric humidity< 80%, non- condensingElectrical Data $21, 626, 4 \vee DC$ Supply Voltage $21, 626, 4 \vee DC$ Power $67, 2 \vee$ Current Consumption Continuous Mode (Ub = 24 V) $2, 8 \wedge$ Rise time $15 \mu s$ Fall time $10 \mu s$ Input signalPNP/NPNShort Circuit ProtectionyesVerload ProtectionyesProtection ClassIIIDimming $010 \vee \pm 10030\%$ Overload ProtectionyesProtection ClassIIIDimming $010 \vee \pm 10030\%$ OverdrivenoMechanical Data 15mm Luminous Field Length (L) 875mm Luminous Field Width (W) $31, 5 \text{mm}$ Housing MaterialPlastic, PCHousing MaterialPlastic, PCDegree of Protection $3 \times M12 \times 1; 5 \text{pin}$ Max. cable length 23m Function 23m Connection Diagram No. 007 Control Panel No. 117	Temperature Range	040 °C		
Function formularlycondensingElectrical Data21,626,4 V DCSupply Voltage21,626,4 V DCPower67,2 WCurrent Consumption Continuous Mode (Ub = 24 V)2,8 ARise time10 µsFall time10 µsInput signalPNP/NPNShort Circuit ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V ≜ 10030%OverdrivenoMechanical Data11.0 V ≜ 10030%Luminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Width (W)31,5 mmLuminous Field875 × 31,5 mmHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of Protection1965Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunction007Control Panel No.117	Storage temperature			
Electrical DataSupply Voltage $21, 626, 4 \lor DC$ Power $67, 2 \lor$ Current Consumption Continuous Mode (Ub = 24 V) $2, 8 \land$ Rise time 15μ sFall time 10μ sInput signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 \lor 10030\%$ OverdrivenoMechanical Data $875 mm$ Luminous Field Length (L) $875 mm$ Luminous Field Width (W) $31,5 mm$ Luminous Field Width (W) $91,5 mm$ Luminous Field NetrialPlastic, ABSHousing MaterialPlastic, PCDegree of Protection $1P65$ Optic CoverPlastic, PCDegree of Protection $3 \times M12 \times 1; 5$ -pinMax. cable length $23 m$ Function $23 m$ Connection Diagram No. 007 Control Panel No. 117	Atmospheric humidity	< 80%, non-		
Power $67,2$ WCurrent Consumption Continuous Mode (Ub = 24 V) $2,8$ ARise time 15μ sFall time 10μ sInput signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming 010 V \pm 10030%OverdrivenoMechanical DataIIILuminous Field Length (L) 875 mmLuminous Field Width (W) $31,5$ mmLuminous Field $875 \times 31,5$ mmHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PIMAAConnection $3 \times M12 \times 1; 5$ -pinMax. cable lenght23 mFunctionQ07Control Panel No. 117	Electrical Data	condensind		
Current Consumption Continuous Mode (Ub = 24 V)2,8 ARise time15 μ sFall time10 μ sInput signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload Protection ClassIIIDimming010 V \pm 10030%OverdrivenoMechanical Data875 mmLuminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Width (W)31,5 mmHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of Protection1P65Optic CoverPlastic, PIMAAConnection3 × M12 × 1; 5-pinMax. cable length23 mFunctionQ07Connection Diagram No.007Control Panel No.117	Supply Voltage	21,626,4 V DC		
Rise time $15 \ \mu s$ Fall time $10 \ \mu s$ Input signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 \ V \le 10030\%$ OverdrivenoMechanical DataIIILuminous Field Length (L) $875 \ mm$ Luminous Field Width (W) $31,5 \ mm$ Luminous Field Width (W) $31,5 \ mm$ Housing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection $3 \times M12 \times 1; 5-pin$ Max. cable lenght23 mFunctionQ07Connection Diagram No. 007 Control Panel No. 117	Power	67,2 W		
Fall time10 μ sInput signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming010 V \triangleq 10030%OverdrivenoMechanical Data11,5 mmLuminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Width (W)31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunction007Connection Diagram No.007Control Panel No.117	Current Consumption Continuous Mode (Ub = 24 V)	2,8 A		
Input signalPNP/NPNShort Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 V \pm 10030\%$ OverdrivenoMechanical DataIIILuminous Field Length (L) $875 mm$ Luminous Field Width (W) $31,5 mm$ Luminous Field Width (W) $875 \times 31,5 mm$ Housing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PIMAAConnection $3 \times M12 \times 1; 5-pin$ Max. cable lenght $23 m$ FunctionQ07Connection Diagram No. 007	Rise time	15 µs		
Short Circuit ProtectionyesReverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 V \pm 10030\%$ OverdrivenoMechanical DataIIILuminous Field Length (L) 875 mm Luminous Field Width (W) $31,5 \text{ mm}$ Luminous Field Width (W) $875 \times 31,5 \text{ mm}$ Housing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection $3 \times M12 \times 1; 5$ -pinMax. cable lenght23 mFunctionQ07Connection Diagram No. 007	Fall time	10 <i>µ</i> s		
Reverse Polarity ProtectionyesOverload ProtectionyesProtection ClassIIIDimming $010 V \pm 10030\%$ OverdrivenoMechanical DataIIILuminous Field Length (L) 875 mm Luminous Field Width (W) $31,5 \text{ mm}$ Luminous Field Width (W) $875 \times 31,5 \text{ mm}$ Housing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection $3 \times M12 \times 1; 5$ -pinMax. cable lenght23 mFunctionO07Connection Diagram No.007Control Panel No.117	Input signal	PNP/NPN		
Overload ProtectionyesProtection ClassIIIDimming010 V \$ 10030%OverdrivenoMechanical Data875 mmLuminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Width (W)315 mmLuminous Field Width (W)975 × 31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PIMMAConnection3 × M12 × 1; 5-pinMax. cable length23 mFunctionContinuous, StrobeConnection Diagram No.007Control Panel No.107	Short Circuit Protection	yes		
Protection ClassIIIDimming $010 \text{ V} \triangleq 10030\%$ OverdrivenoMechanical DataIIILuminous Field Length (L) 875 mm Luminous Field Width (W) $31,5 \text{ mm}$ Luminous Field Width (W) $31,5 \text{ mm}$ Luminous Field $875 \times 31,5 \text{ mm}$ Housing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection $3 \times M12 \times 1; 5$ -pinMax. cable lenght23 mFunctionOperating modesConnection Diagram No. 007 Control Panel No. 117	Reverse Polarity Protection	yes		
Dimming $010 \ V \triangleq 10030\%$ OverdrivenoMechanical Data $IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII$	Overload Protection	yes		
OverdrivenoMechanical DataLuminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field Width (W)875 × 31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, CPCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.107	Protection Class	III		
Mechanical DataLuminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field875 x 31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunctionUOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Dimming	010 V ≜ 10030%		
Luminous Field Length (L)875 mmLuminous Field Width (W)31,5 mmLuminous Field875 × 31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Overdrive	no		
Luminous Field Width (W)31,5 mmLuminous Field875 × 31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Mechanical Data			
Luminous Field875 × 31,5 mmHousing MaterialAluminum, anodisedHousing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Luminous Field Length (L)	875 mm		
Housing Material Aluminum, anodised Housing Material Plastic, ABS Housing Material Plastic, PC Degree of Protection IP65 Optic Cover Plastic, PMMA Connection 3 × M12 × 1; 5-pin Max. cable lenght 23 m Function Operating modes Continuous, Strobe Connection Diagram No. 007 Control Panel No. 117	Luminous Field Width (W)	31,5 mm		
Housing MaterialPlastic, ABSHousing MaterialPlastic, PCDegree of ProtectionIP65Optic CoverPlastic, PMMAConnection3 × M12 × 1; 5-pinMax. cable lenght23 mFunctionOperating modesContinuous, StrobeConnection Diagram No.007Control Panel No.117	Luminous Field	875 × 31,5 mm		
Housing Material Plastic, PC Degree of Protection IP65 Optic Cover Plastic, PMMA Connection 3 × M12 × 1; 5-pin Max. cable lenght 23 m Function Operating modes Continuous, Strobe Connection Diagram No. 007 Control Panel No. 1107	Housing Material	Aluminum, anodised		
Degree of Protection IP65 Optic Cover Plastic, PMMA Connection 3 × M12 × 1; 5-pin Max. cable lenght 23 m Function Operating modes Continuous, Strobe Connection Diagram No. 007 Control Panel No. T17	Housing Material	Plastic, ABS		
Optic Cover Plastic, PMMA Connection 3 × M12 × 1; 5-pin Max. cable lenght 23 m Function Operating modes Connection Diagram No. 007 Control Panel No. T17	Housing Material	Plastic, PC		
Connection 3 × M12 × 1; 5-pin Max. cable lenght 23 m Function 007 Connection Diagram No. 007 Control Panel No. T17	Degree of Protection	IP65		
Max. cable lenght 23 m Function Continuous, Strobe Operating modes Continuous, Strobe Connection Diagram No. 007 Control Panel No. T17	Optic Cover	Plastic, PMMA		
Function Operating modes Continuous, Strobe Connection Diagram No. 007 Control Panel No. T17	Connection	3 × M12 × 1; 5-pin		
Operating modes Continuous, Strobe Connection Diagram No. 007 Control Panel No. T17	Max. cable lenght	23 m		
Connection Diagram No. 007 Control Panel No. 117	Function			
Control Panel No. T17	Operating modes	Continuous, Strobe		
Control Panel No. T17	Connection Diagram No.	007		

Complementary Products

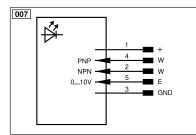
Connection cables ZBAG angle changer ZBAZ001 bar clamp





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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)	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 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
۲	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)		

