

Bar Light Flash

infrared light, 1,375 mm

LBF1904

Part Number



- **Extremely short rise time**
- **Flexibility: expand the beam angle with an Angle Changer**
- **High power OverDrive**
- **No external control required**

The bar lights from the LBF series achieve a light output of up to 2.5 million lux and are suitable for small to large working distances. As direct lights, they enable lighting concepts such as brightfield, darkfield, dome illumination and low-angle illumination. With a rise time of up to 800 ns, they support very short exposure times of vision systems, which minimizes motion blur in high-speed applications. They can be triggered directly via the camera; a separate timing controller is not required. Direct synchronization is possible in the powerful flash mode OverDrive. Angle changers allow flexible adjustment of the beam angle and polarization of the light.

Technical Data

Optical Data	
Light Source	Infrared Light
Wavelength	850 nm
Risk Group (EN 62471)	1
Beam angle	± 7 °
Infrared light output	3067 W/m ²
Measuring point distance	200 mm
Compatible with	Angle Changer
Environmental conditions	
Temperature Range	0...40 °C
Storage temperature	-20...60 °C
Atmospheric humidity	< 80%, non-condensing
Electrical Data	
Supply Voltage	21,6...26,4 V DC
Power	92,4 W
Peak power	132 W
Current Consumption Continuous Mode (U _b = 24 V)	3,85 A
Current consumption flash mode OverDrive (operating voltage = 24 V)	5,5 A
Flash duration (max.)	2,5 ms
Duty cycle (max.)	3,5 %
Rise time	0,8 μs
Fall time	0,25 μs
Input signal	PNP
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)	1375 mm
Luminous Field Width (W)	31,5 mm
Luminous Field	1375 × 31,5 mm
Housing Material	Aluminum, anodised
Housing Material	Plastic, ABS
Housing Material	Plastic, PC
Degree of Protection	IP65
UL Enclosure Type	1
Optic Cover	Plastic, PMMA
Connection	M12 × 1; 4-pin
Max. cable length	15 m
Function	
Operating modes	Continuous, Strobe
Connection Diagram No.	010
Suitable Mounting Technology No.	925

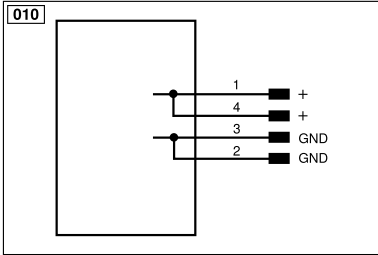
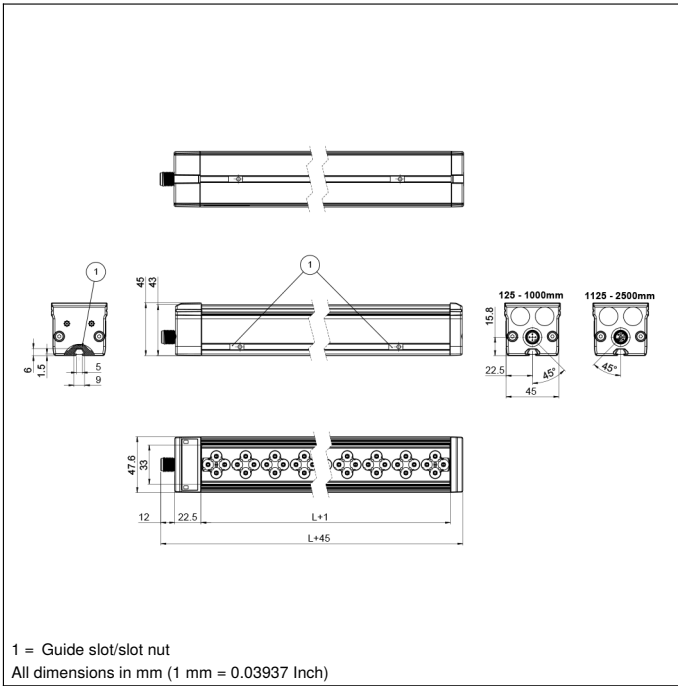
Complementary Products


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

Ctrl. Panel

T17


68 = Power LED
 9b = Strobe Mode Indicator



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)	Ū	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
R	Reset 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(-)
QSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contacting Monitoring
		ENARs422	Encoder A/Ā (TTL)
		ENBRs422	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 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

