



LBOxxxx

OPERATING INSTRUCTIONS

wenglorTPL

INTRODUCTION

This Technical User Guide contains warnings and guidance for correct and safe operation of the product. These instructions must be followed at all times. wenglorTPL will not be held responsible for problems caused by using the product contrary to these instructions and the Warranty will be deemed invalid.



UNPACKING

This product is packed at the factory using suitable materials for safe transport. To open the package, do not use any cutting blade to avoid damaging the product(s). Please use the delivered accessories if needed. (Do not use any other products or equivalents to replace the delivered accessories).

In the event of damage occurring during shipping, it must be reported to the carrier at time of delivery (including noting the damage in writing on the delivery documents). It is also your responsibility to notify wenglorTPL in writing of the damage within 24 hours of receipt of the package. If these instructions are not followed, wenglorTPL reserves the right not to accept requests for return and exchange of damaged products.

RISK CLASS

The applicable Standard EN-62471 classifies LED Lighting into 4 classes according to their degree of hazard severity. The table below summarises the risks associated with our standard products.

Color	Class	Risk
White WHI, Red 630 nm	0	none
IR 850 nm	1	low

In all cases, wenglorTPL recommends the use of **protection glasses**.

wenglorTPL can provide **guidance notes to minimise photo-biological risks**, including the nominal minimum operating distance. Please contact wenglorTPL through your **usual representative** for this information.



BEWARE to the infrared light, invisible to the eyes.

To know if the light is on, please refer to the LED indicators.



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DIMENSIONS

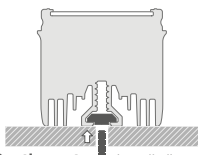


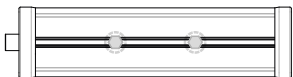
	Length* (mm)	Height (mm)	Width (mm)	Useful length (mm)
	A	B	C	D
LBOx601	658	45	47.6	625
LBOx701	783	45	47.6	750
LBOx801	909	45	47.6	875
LBOx901	1034	45	47.6	1000
LBOx902	1160	45	47.6	1125
LBOx903	1285	45	47.6	1250

* Total length, without connector.

For additional **sizes** and **colors**, please speak to your responsible sales representative.

FIXING





Useful length <1000	Useful length ≥1000
4 captive nuts	6 captive nuts

Captive nuts (supplied)

Please use all the captive nuts. **NEVER REMOVE THEM FROM THE BAR.**



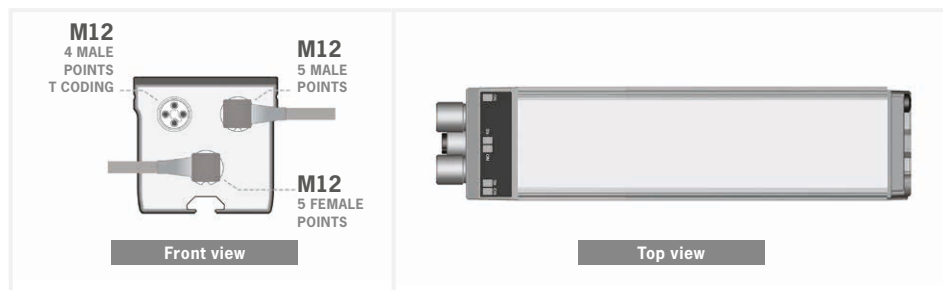
You can also use M4 screws (not supplied) fastened directly into Aluminium profile with a tightening torque from 0.5 to 1.5 Nm. We also recommend the use of a thread-locker (not supplied) to avoid any risk of loosening.

During the set up, the light has to be switched off and unplugged. Please use M4 screws and insert them in the captive nuts located in the back of the light. The light will be better fixed if you spread the attachment points symmetrically along the bar.

Additionally, there is the mounting accessory **ZBAZ001**, which can connect the bar light to surfaces and give 180° secure rotational adjustments.

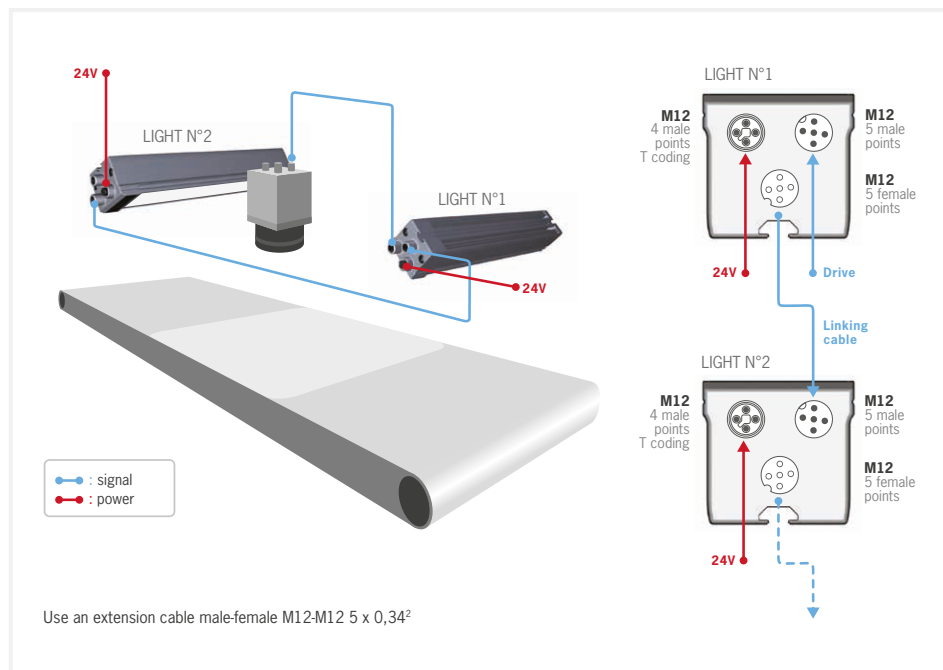


■ WIRING



If one of the connectors is not used, please keep the cap to maintain the IP protection.

■ DAISY CHAIN





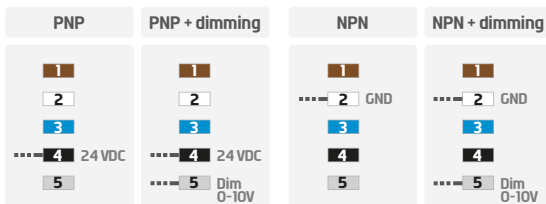
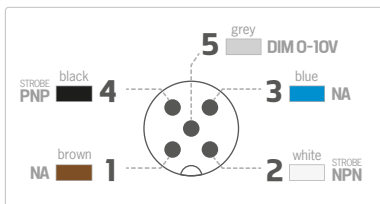
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CONNECTION

M12 Connector 5 male points - DRIVE



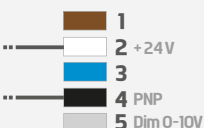
Light will be in continuous mode by leaving signal on strobe input active.

The **M12 male connector 5 points** is **COMPLIANT** with the M12 female connector 4 points. In that case, the dimming option is not available.

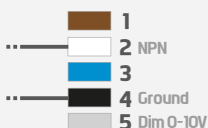
EMC IMMUNITY CONNECTIONS: for greater EMC immunity when using the light under Strobe operation, configure the signal connections as illustrated here. For Dimming, the Pin (5) should be connected to a voltage between 0V and 10V to ensure light output is correctly configured.



STROBE PNP :

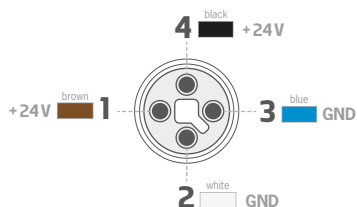


STROBE NPN :

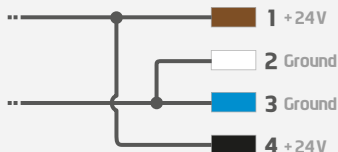


M12 Connector 4 male points - POWER

POWER CONNECTOR - T CODING



CONNECTION





VOLTAGE DROP

References	LB0x601	LB0x701	LB0x801	LB0x901	LB0x902	LB0x903
Max voltage drop in the bar (V)	0.18	0.26	0.35	0.46	0.58	0.72
Power supply cable : 5x0,34 ² max length for acceptable voltage drop (m)*	138	112	94	80	68	59
Linking cable: 5x0,34 ² **	No restriction if each bar has its own power supply cable. Please contact us for other configuration					

* Max length for acceptable voltage drop (m). For longer power supply cable, increase the section of the copper wire.

** Max length for acceptable voltage drop (m).

LED INDICATORS



ON
■ : **Power** LED indicator

Str.
■ : **Strobe** LED indicator

CONTROL

The product is optimised for a lifespan >50kh in a 40°C atmosphere.

In strobe mode, the strobing time is directly equivalent to the time during which the strobe entry is activated.

STROBE PNP & NPN

PNP : from 5 to 24V for 100% ON. From 0 to 1V for 100% OFF.

NPN : less than 1V for 100% ON. Above 2V for 100% OFF. Max 20V.

Strobe mode : LED are supplied in Overdrive.

Continuous mode : after 2ms in Overdrive, LED are supplied at a safe level for use in continuous mode.

	D max (%)	t max	f max
CW	100%	CW	N/A
Strobe	5%	2 ms	750 Hz

D : Duty Cycle
t : pulse duration
f : frequency

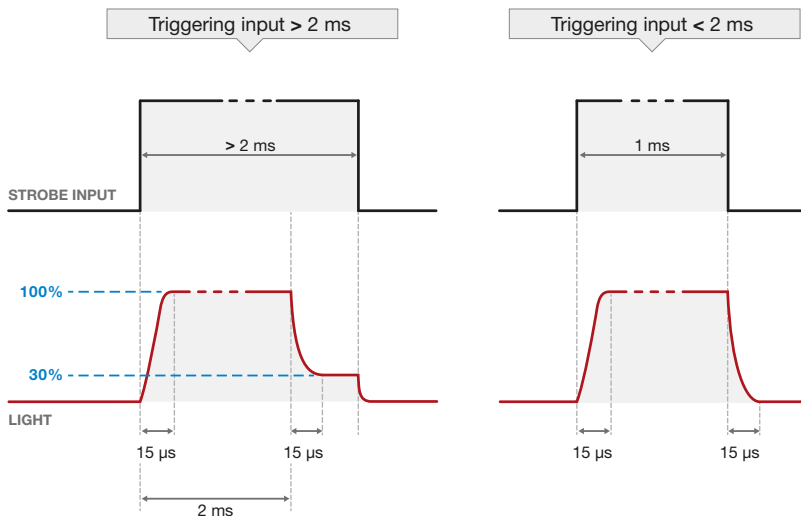


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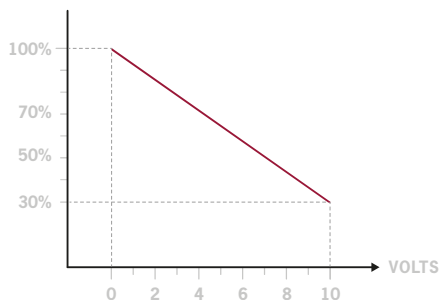
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STROBE MODE



DIMMING 0-10V



Dimming between 0 & 10 V

At 0 Volts, the product reaches 100% of its lighting power. Only usable in Overdrive mode. Please consider a tolerance of $\pm 5\%$ when measuring the dimmed brightness levels.



POWER SUPPLY

	LB0x601	LB0x701	LB0x801	LB0x901	LB0x902	LB0x903
Power needed in Strobe (W)	240	288	336	384	432	480
Power needed in Continuous Working (W)	55.5	66.6	77.7	88.8	99.9	111
Minimum functioning Voltage	20V in the light input					
Normal functioning Voltage	24V in the light input (±10%)					
Maximum functioning Voltage	30V in the light input					

PRODUCT LIFETIME

LED lifetime can typically be increased using strobe mode where possible. Strobing the light or turning the illumination on and off (using PNP or NPN lines) allows less temperature build up at the LED junction. The junction temperature of the LED is directly correlated with the lifetime of the LED chip. Maximum ambient air temperature = maximum 40°C/104°F.

LEDs naturally lose some intensity over time because of heat. Using the dimming and setting a reference brightness is a method for keeping the brightness level constant over a very long time, especially on brightness critical applications. wenglorTPL products have been integrated in factories since 2006, many of which are still in operation today. LED lifetime and heat management are at the forefront of our design considerations.

USER SECURITY

Do respect the power supply voltages and the connection terminals.

Do not modify or dismantle all or part of the product.

Do not connect or clean when power is on.

Do not watch the lighting source directly, and follow the advice below :



- If the workstation enables it, interpose a filter that will stop the lighting radiation under fixed or adjustable frame between the source and the operator.
- When these measures cannot be implemented, supply the operators with glasses (class 4).
- Forbid or limit the direct access to the lighting source (exposure into the radiation axis).
- Establish a security perimeter so as to prevent the operators from approaching the lighting source beyond the recommendations of the manufacturer, as for eye irritation is concerned.
- In any case, ensure that the chosen means properly reduce the exposition quantities (features of screens or glasses to be chosen, according to the wavelengths that the operators are exposed to).



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■ OPERATING CONDITIONS

-10° to +40°C / 80% of humidity without condensation.

No thermal shock (max temperature variation: 10°C in 24h).

Not for outdoor use.

If one of the connectors is not used, please keep the cap to maintain the IP protection.

■ EQUIPMENT MAINTENANCE

CLEANING (when the product is switched off)

Please use a soft and dry cloth. Do not use any abrasive material.

Do not use any cleaning solvent or aggressive chemical product.

wenglorTPL recommends to use isopropyl alcohol.

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Features and presentations liable to changes without notice. Documentation valid from June 2017 until further notice.

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