

LBLxxxx
OPERATING INSTRUCTIONS

wenglor TPL

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
Red 630 nm	0	none
White WHI, 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.

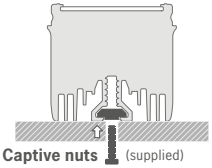
DIMENSIONS

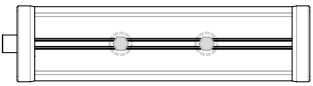


	Length* (mm)	Height (mm)	Width (mm)	Useful length (mm)
	A	B	C	D
LBLx101	158	45	47.6	125
LBLx201	283	45	47.6	250
LBLx301	408	45	47.6	375
LBLx501	533	45	47.6	500
LBLx601	658	45	47.6	625
LBLx701	783	45	47.6	750
LBLx801	909	45	47.6	875
LBLx901	1034	45	47.6	1000
LBLx902	1160	45	47.6	1125
LBLx903	1285	45	47.6	1250

* Total length, without connector.

FIXING

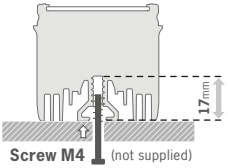




- Useful length (Lg) < 500 mm: **2** captive nuts M4
- 500 mm ≤ Lg < 1000 mm: **4** captive nuts M4
- 1000 mm ≤ Lg ≤ 1250 mm: **6** captive nuts M4

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

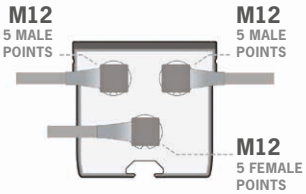
During the set up, the light has to be switched off and unplugged. Please use M4 screws and insert them in the captive nuts located in the back of the light. The light will be better fixed if you spread the attachment points symmetrically along the bar.



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.

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

WIRING



Front view

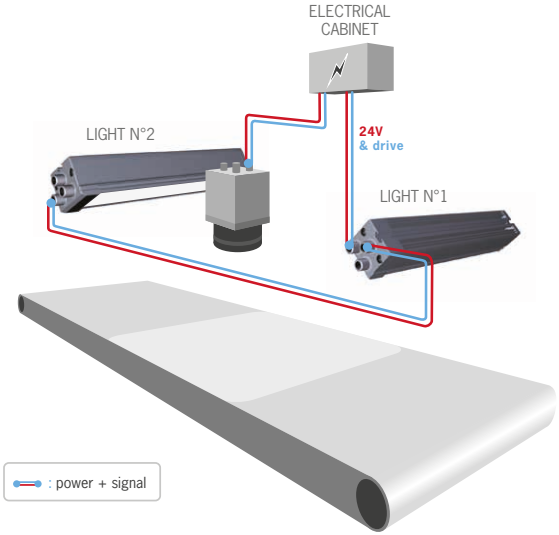


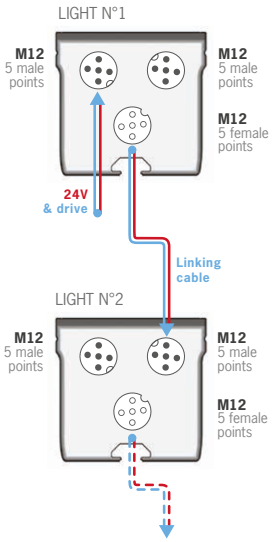
Top view

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

LINKABLE SYSTEM

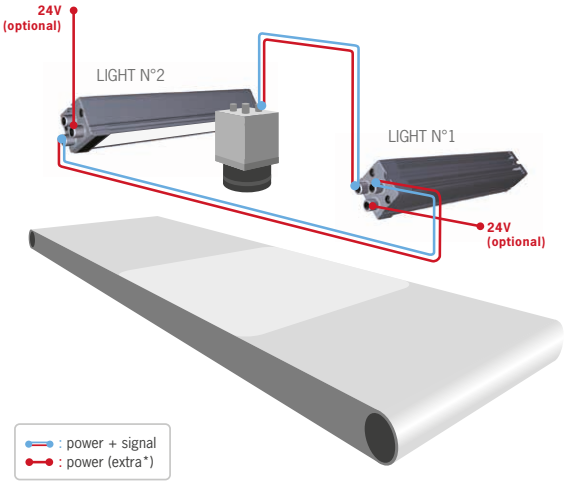
CONNECTION THROUGH ELECTRICAL CABINET

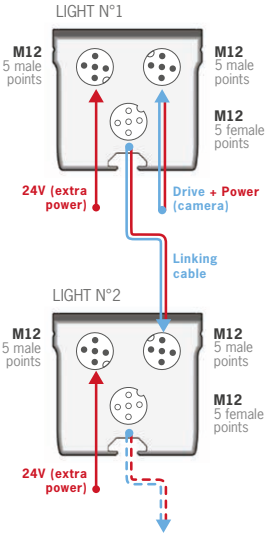




LINKABLE SYSTEM

CONNECTION WITHOUT ELECTRICAL CABINET





* If the ouput of the camera is not able
to provide the power required by the bar,
please add extra power by using the 2nd M12 male connector.

POWER SUPPLY

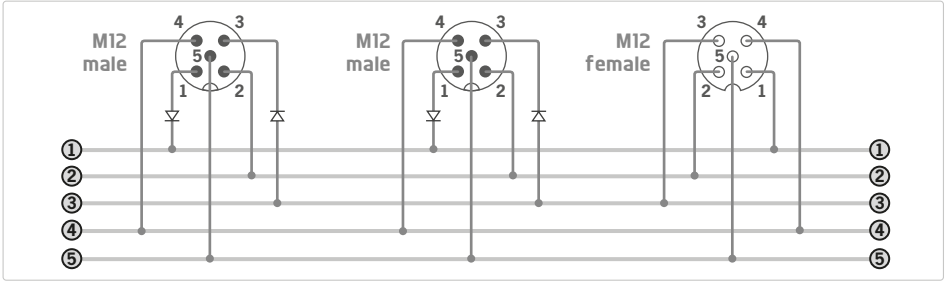
	USEFUL LENGTH (mm)									
	125	**250**	**375**	**500**	**625**	**750**	**875**	**1000**	**1125**	**1250**
Max. consumption (W)	9,6	19,2	28,8	38,4	48	57,6	67,2	76,8	86,4	96
Normal functioning Voltage	24V in the light input (±10%)									
Max. functioning Voltage	30V in the light input									
Max. consumption Strobe and Dimming signal	10mA									

MAX. LENGTH FOR LINKING CABLE (EXAMPLES)

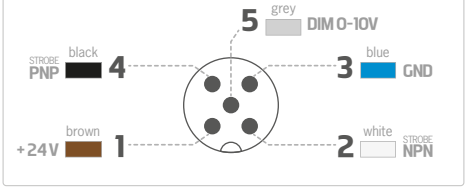
Power supply cable	Bar n°1 (useful length)	Bar n°2 (useful length)	Max. length for linking cable
10 meters	250	250	50 meters
	500	500	20 meters
	750+	750+	1 power supply cable per bar = no restriction for the linking cable length
20 meters	250	250	40 meters
	500	500	10 meters
	750+	750+	1 power supply cable per bar = no restriction for the linking cable length

Other configurations : please contact us.

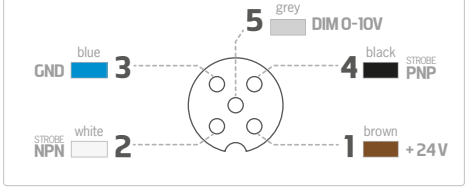
INTERNAL CONNECTION



M12 male (x2)



M12 female



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** :

- 1 +24V
- 2 +24V
- 3 Ground
- 4 PNP
- 5 Dim 0-10V

STROBE **NPN** :

- 1 +24V
- 2 NPN
- 3 Ground
- 4 Ground
- 5 Dim 0-10V

VOLTAGE DROP

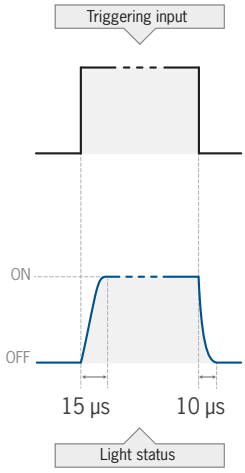
	USEFUL LENGTH (mm)									
	125	250	375	500	625	750	875	1000	1125	1250
Max voltage drop in the bar (V)	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56	0.63	0.70
Power supply cable : 5x0,34² max length for acceptable voltage drop (m)*	180	90	60	43	34	27	23	20	17	15
Linking cable : 5x0,34² max length for acceptable voltage drop (m)	No restriction if each bar has its own power supply cable please contact us for other configuration									

* For longer power supply cable, increase the section of the copper wire.

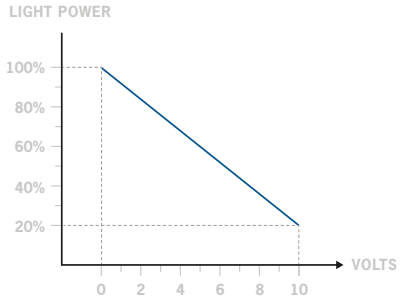
The **M12 male connector 5 points** is **COMPLIANT** with the M12 female connector 4 points.
In that case, the dimming option is not available.

CONTROL

STROBE MODE



DIMMING 0-10V



Potential dimming between 0 & 10 V.

At 0 Volts, the product reaches 100% of its lighting power.

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 25.2V.

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.

LED INDICATORS



ON : **Power** LED indicator

Str. : **Strobe** LED indicator

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).

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.

wenglor TPL

wenglor Straße 3
88069 Tettnang
Germany

+49 (**0**)**7542 5399 800** | **support**@wenglor.com

www.**wenglor**.com