

LBDxxxx
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
White WHI, Red 630 nm, IR 850 nm	0	none
Blue 470 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

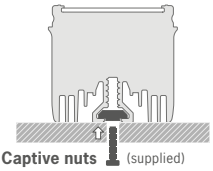


For additional **sizes** and **colors**, please speak to your responsible sales representative.

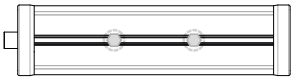
	Total length* (mm)	Height (mm)	Width (mm)	Useful length (mm)
	A	B	C	D
LBDx101	158	45	47.6	125
LBDx201	283	45	47.6	250
LBDx301	408	45	47.6	375
LBDx501	533	45	47.6	500
LBDx601	658	45	47.6	625
LBDx701	783	45	47.6	750
LBDx801	908	45	47.6	875
LBDx901	1033	45	47.6	1000
LBDx902	1158	45	47.6	1125
LBDx903	1283	45	47.6	1250

* Total length, without connector.

FIXING



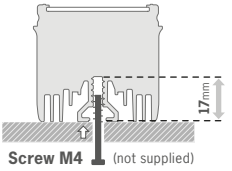
Captive nuts (supplied)



- 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.

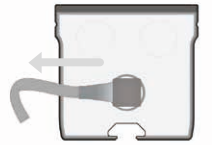


Screw M4 (not supplied)

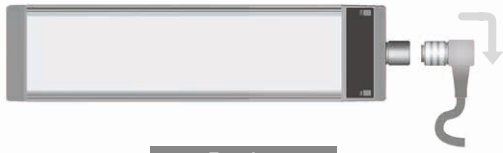
You can also use M4 screws (not supplied) fastened directly into Aluminium profile with a tightening torque from 0.5 to 1.5 Nm. We also recommend the use of a thread-locker (not supplied) to avoid any risk of loosening.

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

WIRING



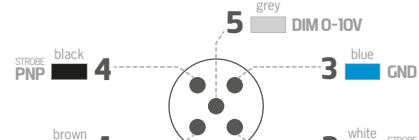
Front view

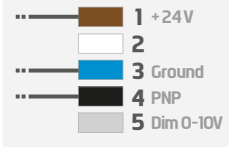


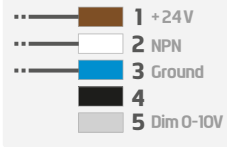
Top view

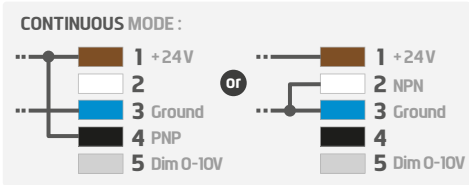
CONNECTION

M12 Connector 5 male points



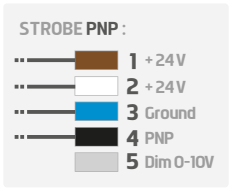


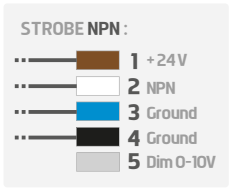




PNP : from 5 to 24V for 100% ON. From 0 to 1V for 100% OFF.
NPN : less than 1V for 100% ON. Above 2V for 100% OFF. Max 25.2V.

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.





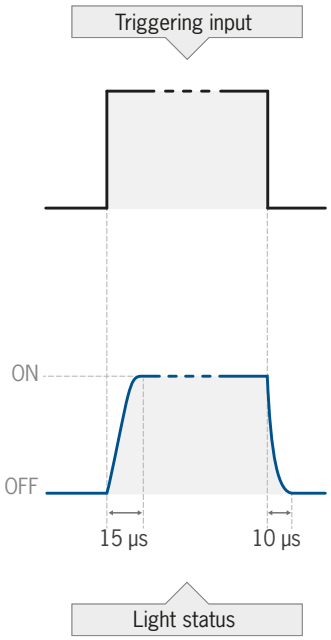
VOLTAGE DROP

	USEFUL LENGTH									
	125	250	375	500	625	750	875	1000	1125	1250
Max voltage drop in the bar (V)	0.01	0.03	0.06	0.11	0.17	0.25	0.34	0.44	0.56	0.69
Power supply cable : 5x0,34² max length for acceptable voltage drop (m)*	180	90	60	43	34	27	23	20	17	15

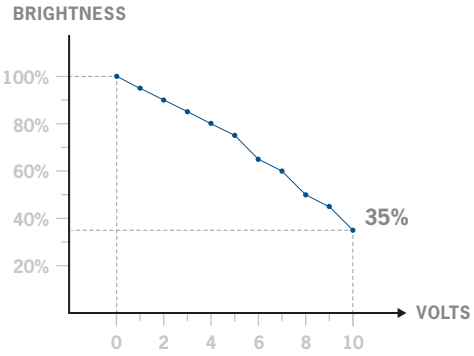
* For longer power supply cable, increase the section of the copper wire.

CONTROL

STROBE MODE



DIMMING CONTROL



Voltage (VDC)	0	1	2	3	4	5	6	7	8	9	10
Brightness	100%	95%	90%	85%	80%	75%	65%	60%	50%	45%	35%

Potential dimming between 0 & 10 V.

If the DIMMING pin is not connected, or with 0V applied to it, the product is at 100% of its lighting power. With 10V applied, it is reduced to 35% of lighting power.

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.

POWER SUPPLY

	USEFUL LENGTH									
	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									

LED INDICATORS



ON : **Power** LED indicator
(product is powered)

Str. : **Strobe** LED indicator
(LEDs ar ON)

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.

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.

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).

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.

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