



ESSENTIAL EBAR+ UV

EASY TO USE & POWERFUL LED LIGHTING BAR

IP65
PROTECTION

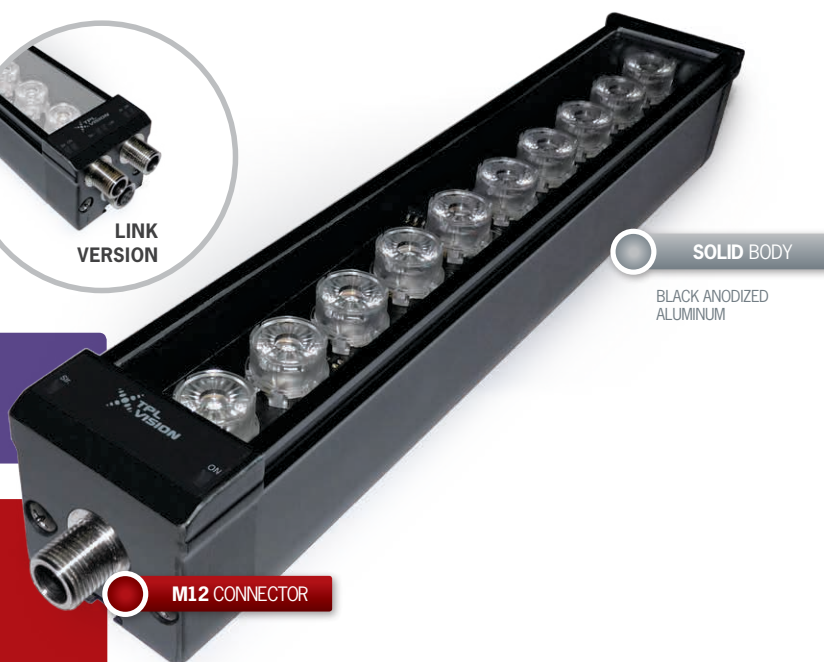
▶ LED LIGHTING SYSTEM ▶ MACHINE VISION APPLICATIONS ▶ HIGH POWERFUL LED ▶ DIRECT LIGHTING ▶ QUALITY CONTROL WITH CAMERA ▶ ULTRAVIOLET LIGHT

SIMPLICITY LEADING TO POWER.



LIGHTING: **UV**

- ✓ high powerful lighting,
- ✓ rising time: 15 μ s,
- ✓ from 125 mm to 1250 mm.



2 VERSIONS AVAILABLE

Besides the **Standard version**, high power LED bar, easy to set and to use, TPL Vision offers a LINK version:

LINK
VERSION

Inter-connectable lights for an **optimized synchronisation** of the signal transmission.

The Essential EBAR+ UV 405 is a highly powerful LED light, very useful for machine vision applications requiring intense luminous flux. It can be set up downwards, in the same axis as the camera's, or with an angle of incidence, to perfectly illuminate rectangular areas on a production line.

The Essential EBAR+ UV 405 is very easy to use: you don't have to adjust anything, only to plug it. There are 2 functioning modes:

continuous and strobe, with very short rising and falling times (15 μ s and 10 μ s).

Its black aluminum structure, very robust, is IP65. It also helps to dissipate the heat generated by the LED. Moreover, 2 LED indicators near the connector show if the product is powered.

UV-INFO

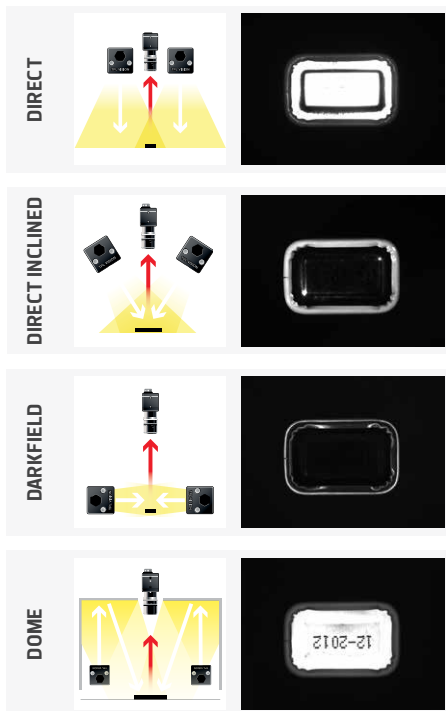
In the light spectrum, UV (ultra violet) rays are electromagnetic radiations situated between 280 and 400 nm (visible radiations: between 400 and 800 nm). What makes UV very interesting is the fact that, even if it is invisible for the naked eye, it can be observed by fluorescence: when some bodies are submitted to UV

wavelengths, they emit a visible light. This is the principle of black light and of counterfeit notes detection. TPL Vision only uses UV belonging to the UV-A range.

LINK VERSION

OPTIMISED SIGNAL SYNCHRONISATION

The LINK version has a specific wiring, compound of 3 M12 connectors. So, you can easily link several lights one to another, for a perfect signal synchronisation, while powering them separately in 24VDC. The LINK version can be easily incorporated in machine vision systems that require many lights, with optimized synchronisation.



TECHNICAL SPECIFICATIONS

	EBAR+	EBAR+ Link
General information		
Power supply	24 VDC ±10%	24 VDC ±10%
Max standard length (mm)	1250	1250
Functioning mode	CW + STR	CW + STR
Overdrive	No	No
Strobe conditions (On time, duty cycle)	No restriction	No restriction
Strobe input	24VDC PNP & NPN	24VDC PNP & NPN
Dimming	0-10V = 100%-20%	0-10V = 100%-20%
Maximum rising time	15µs	15µs
Maximum falling time	10µs	10µs
Wiring	1x male M12 5 poles	2x male M12 5 poles 1x female M12 5 poles
Materials		
Body materials	Aluminum	
Finish	Anodization	
Connector materials	Loaded ABS	
Diffuser option	Abrasion-resistant Polycarbonate	
Environment		
Operating temperature	-10° to +40°C / 80% of humidity without condensation No thermal shock (max temperature variation: 10°C in 24h)	
Storage temperature	-20° to +60°C / 80% of humidity without condensation No thermal shock (max temperature variation: 10°C in 24h)	
IP protection	IP 65	
Labels	RoHS-CE-WEEE	

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.

EBAR+	Max standard length 1250mm									
	125	250	375	500	625	750	875	1000	1125	1250
Electronics										
Max current (A) through power supply	0,4	0,8	1,2	1,6	2	2,4	2,8	3,2	3,6	4
Max. Consumption (W)	9,6	19,2	28,8	38,4	48	57,6	67,2	76,8	86,4	96
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 : max length 5x0,34 ² for acceptable voltage drop (m)	180	90	60	43	34	27	23	20	17	15
Optics										
Colour	UV 405									
Number of Leds	5	10	15	20	25	30	35	40	45	50
Lenses	± 7°, ± 10°, ± 17°, ± 25°, ± 9-16°, NL									
Mechanics										
Total length (mm)	158	283	408	533	658	783	909	1034	1160	1285
Width x Height (mm)	47,6 x 45									
Useful length (mm)	126	251	376	501	626	751	877	1002	1128	1253
Useful width (mm)	31,5									
Weight (g) ±10%	255	476	698	919	1140	1361	1583	1804	2025	2246
Fixing	M4 nuts to insert in the groove located on the back of the light or directly use M4 screws									
Included add-ons	Length (Lg) < 500 mm: 2 nuts M4 500 mm ≤ Lg < 1000 mm: 4 nuts M4 1000 mm ≤ Lg ≤ 1250 mm: 6 nuts M4									

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	125	250	375	500	625	750	875	1000	1125	1250
Electronics										
Max current (A) through power supply	0,4	0,8	1,2	1,6	2	2,4	2,8	3,2	3,6	4
Max. Consumption (W)	9,6	19,2	28,8	38,4	48	57,6	67,2	76,8	86,4	96
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 : max length 5x0,34² for acceptable voltage drop (m)	180	90	60	43	34	27	23	20	17	15
Linking cable : Lg max 5x0,34² for acceptable voltage drop (m)	No restriction if each bar has its own power supply cable – please contact us for other configuration									
Optics										
Colour	UV 405									
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Useful length (mm)	126	251	376	501	626	751	877	1002	1128	1253
Useful width (mm)	31,5									
Weight (g) ±10%	275	496	718	939	1160	1381	1603	1824	2045	2266
Fixing	M4 nuts to insert in the groove located on the back of the light or directly use M4 screws									
Included add-ons	Length (Lg) < 500 mm: 2 nuts M4 500 mm ≤ Lg < 1000 mm: 4 nuts M4 1000 mm ≤ Lg ≤ 1250 mm: 6 nuts M4									

HOW TO BUILD YOUR REFERENCE

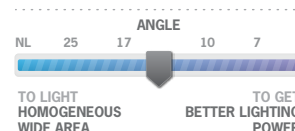
REQUIRED SETTINGS

EBAR	VERSION	USEFUL DIMENSION	COLOUR	LENS/ OPTIC ANGLE
	STANDARD	125	405	7 ± 7°
	L LINK	250		10 ± 10°
		375		9-16 ± 9°/16°
		500		17 ± 17°
		625		25 ± 25°
		750		NL NO LENS
		875		
		1000		
		1125		
		1250		

INFORMATION ABOUT LENSES

NARROW ANGLE = GIVE PRIORITY TO LIGHTING POWER

WIDE ANGLE = GIVE PRIORITY TO HOMOGENEITY AND WIDE AREA



EXAMPLES :

EBAR+ Standard 125 mm LED UV405 ± 10° IP65 rating → **EBAR-125-405-10**

EBAR+ Link 250 mm LED UV405 ± 17° IP65 rating → **EBAR-L-250-405-17**

CABLES

M12 female 5 pins cable

Compatible : Standard & LINK versions

2 meters	Ref: C-M12-5P-2M
5 meters	Ref: C-M12-5P-5M
10 meters	Ref: C-M12-5P-10M

M12 female/M12 male 5 pins extension cable

Compatible : LINK version (daisy chain)

5 meters	Ref: RA-M12-FM-5P-5M
10 meters	Ref: RA-M12-FM-5P-10M

RELATED PRODUCTS

By default, the EBAR+ UV405 is delivered with a transparent protective window. To order some diffusers or polarisers, please use the following reference builder:

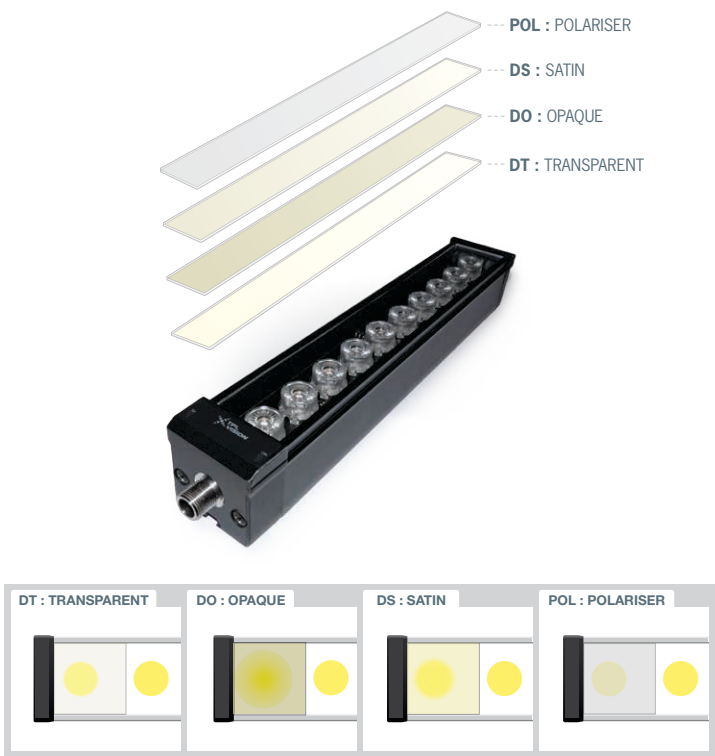
DIFFUSER	BAR	DIMENSION
DT	TRANSPARENT	125
DO	OPAQUE	250
DS	SATIN	375
POL	POLARISER*	500
		625
		750
		875
		1000
		1125
		1250

EXAMPLES :

Transparent diffuser for bar 250 mm :
→ **DT-BAR-250**

Satin diffuser for bar 1000 mm :
→ **DS-BAR-1000**

* EXCEPT FOR IR 850



ACCESSORIES

Mounting accessory for camera

Ref: TPL-MOUNT-BAR-H1

Mounting accessory for camera

Ref: TPL-MOUNT-BAR-V1

Mounting accessory

Ref: TPL-MOUNT-BAR-SQUARE1

Mounting accessory

Ref: BMOUNT

Mounting accessory

Ref: SWIVEL-MOUNT

Safety glasses

Ref: EYE-PROTECT

Features and presentations liable to modifications without prior notice. Ref.TS-010501-B5, 2023/11 Edition



- Other available documents :
- PDF, DWG, DXF, IGS, STEP & X_Y DRAWINGS
 - USER'S GUIDE

