

## SIMPLICITY LEADING TO POWER.



**SOLID BODY**

BLACK ANODIZED  
ALUMINUM

**LIGHTING: UV**

- ✓ high powerful lighting,
- ✓ rising time: 15  $\mu$ s,
- ✓ from 17 cm to 1 m 30.

**M12 CONNECTOR**

### 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  $\mu$ s and 10  $\mu$ 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

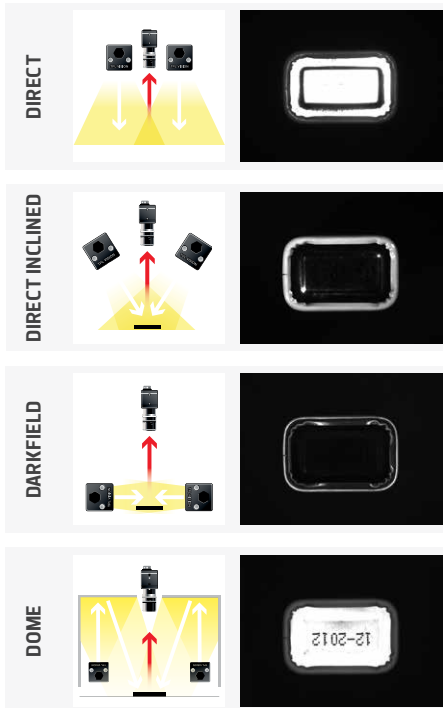
In the light spectrum, UV (ultra violet) rays are electromagnetic radiations situated between 280 and 400 nm (visible radiations: between 400 and 800 nm). What makes UV very interesting is the fact that, even if it is invisible for the naked eye, it can be observed by fluorescence: when some bodies are 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
<b>General information</b>		
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
<b>Materials</b>		
Body materials	Aluminum	
Finish	Anodization	
Connector materials	Loaded ABS	
Diffuser option	Abrasion-resistant Polycarbonate	
<b>Environment</b>		
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
<b>Electronics</b>										
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 <sup>2</sup> for acceptable voltage drop (m)	180	90	60	43	34	27	23	20	17	15
<b>Optics</b>										
Colour	UV 405									
Number of Leds	5	10	15	20	25	30	35	40	45	50
Lenses	± 7°, ± 10°, ± 17°, ± 25°, ± 9-16°, NL									
<b>Mechanics</b>										
Total length (mm)	158	283	408	533	658	783	908	1033	1158	1283
Width x Height (mm)	47,6 x 45									
Useful length (mm)	126	251	376	501	626	751	876	1001	1126	1251
Useful width (mm)	31,5									
Weight (g) ±10%	255	476	698	919	1140	1361	1583	1804	2025	2246
Fixing	2 M4 nuts to insert in the groove located on the back of the light or directly use M4 screws									
Included add-ons	Lg 600mm : 2 nuts / 600<Lg<1250 : 3 nuts									

EBAR+ Link	Max standard length 1250mm									
	125	250	375	500	625	750	875	1000	1125	1250
<b>Electronics</b>										
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 5x0,34 <sup>2</sup> for acceptable voltage drop (m)	180	90	60	43	34	27	23	20	17	15
Linking cable : Lg max 5x0,34 <sup>2</sup> for acceptable voltage drop (m)	No restriction if each bar has its own power supply cable – please contact us for other configuration									
<b>Optics</b>										
Colour	UV 405									
Number of Leds	5	10	15	20	25	30	35	40	45	50
Lenses	± 7°, ± 10°, ± 17°, ± 25°, ± 9-16°, NL									
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Total length (mm)	158	283	408	533	658	783	908	1033	1158	1283
Width x Height (mm)	47,6 x 45									
Useful length (mm)	126	251	376	501	626	751	876	1001	1126	1251
Useful width (mm)	31,5									
Weight (g) ±10%	275	496	718	939	1160	1381	1603	1824	2045	2266
Fixing	2 M4 nuts to insert in the groove located on the back of the light or directly use M4 screws									
Included add-ons	Lg 600mm : 2 nuts / 600<Lg<1250 : 3 nuts									

## HOW TO BUILD YOUR REFERENCE

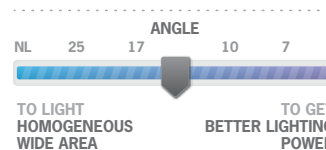
### REQUIRED SETTINGS

<b>EBAR</b>	<b>VERSION</b>	<b>USEFUL DIMENSION</b>	<b>COLOUR</b>	<b>LENS/ OPTIC ANGLE</b>
	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**

### TPL VISION UK

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[www.tpl-vision.com](http://www.tpl-vision.com)



### Other available documents :

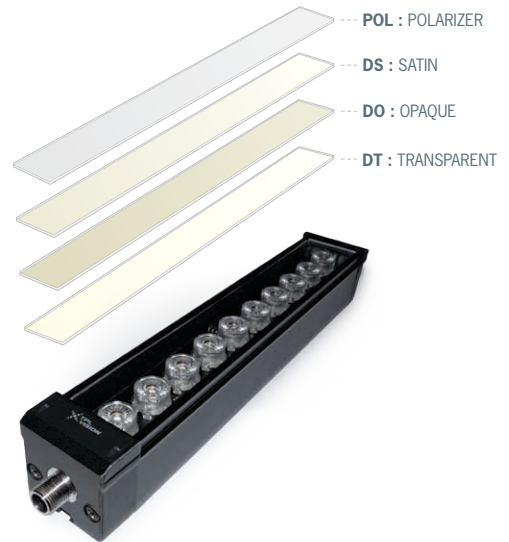
- PDF, DWG, DXF, IGS, STEP & X\_Y DRAWINGS
- USER'S GUIDE

**Essential EBAR+ UV**



## RELATED PRODUCTS

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

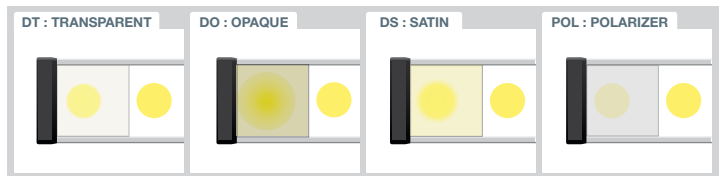


DIFFUSER	BAR	DIMENSION
DT	TRANSPARENT	125
DO	OPAQUE	250
DS	SATIN	375
POL	POLARIZER	500
		625
		750
		875
		1000
		1125
		1250

**EXAMPLES :**

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

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



**Cable M12 female 5 pins**  
 Compatibility: Standard & LINK versions

<b>2 meters</b>	Ref : C-M12-5P-2M
<b>5 meters</b>	Ref : C-M12-5P-5M
<b>10 meters</b>	Ref : C-M12-5P-10M

**Extension cable 5 pins M12 female/male**  
 Compatibility: LINK version (daisy chain)

<b>5 meters</b>	Ref : RA-M12-FM-5P-5M
<b>10 meters</b>	Ref : RA-M12-FM-5P-10M

**Protection glasses**

Ref : EYE-PROTECT

**Mounting: Bar BMOUNT**

Ref : BMOUNT

**Mounting: Swivel Mount**

Ref : SWIVEL-MOUNT

Features and presentations liable to modifications without prior notice. B-1 version, 2019/06 Edition

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