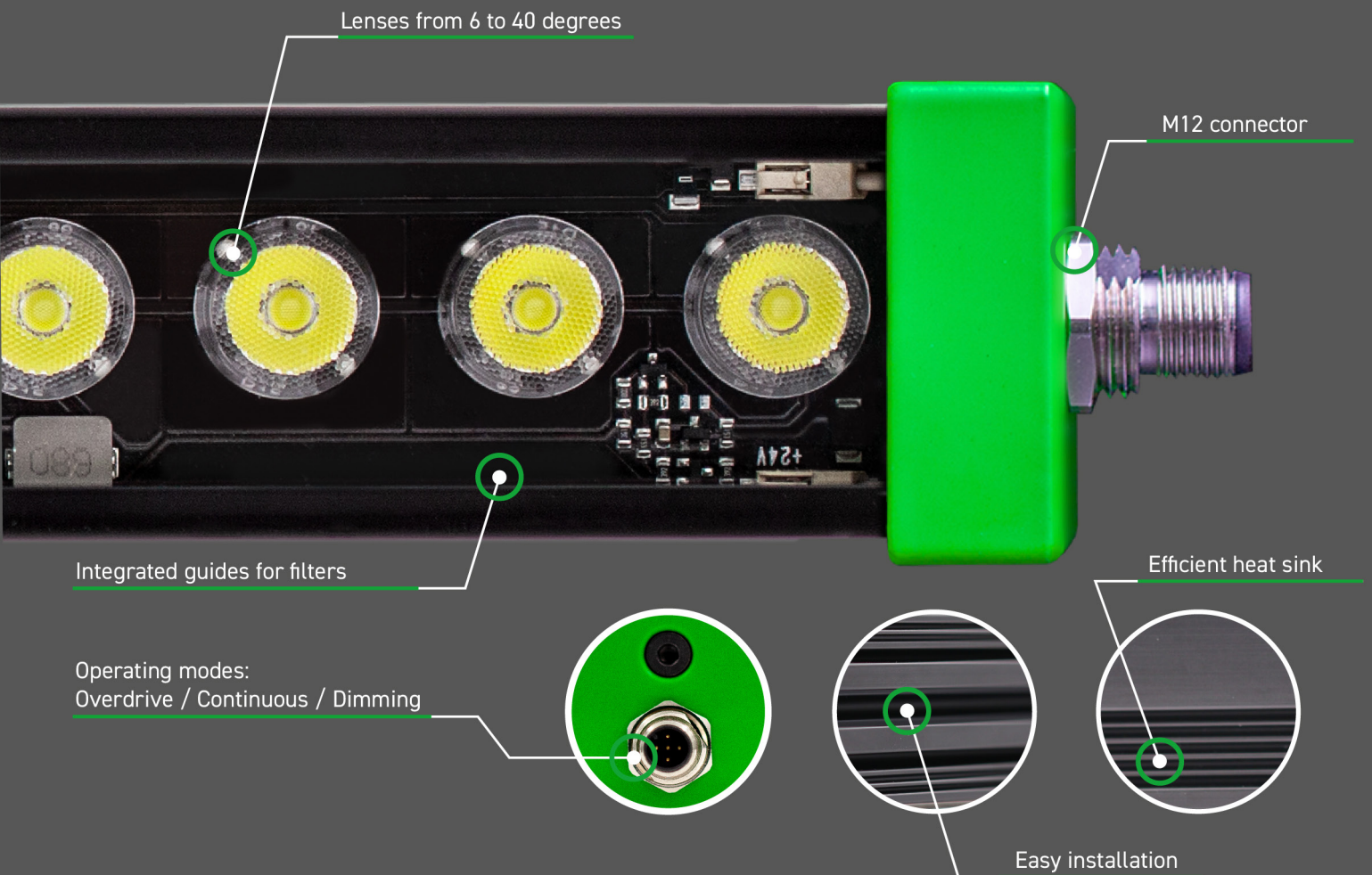


# IBLPX

BAR LIGHT POWER X

Manufacturer: ISCON

Product: LED Illuminator - Bar Light Power X



## Product Description

The IBLPX illuminator is a new generation of the IBLP model with increased light output efficiency (5 times more power in overdrive mode, 30% higher brightness in continuous mode). The housing is 20% lighter and features integrated guides for filters and an efficient heat sink ensuring optimal cooling. The IBLPX is equipped with light intensity adjustment. The specially designed housing enables easy and quick installation.

- 30% higher brightness in continuous mode
- 5x more power in overdrive mode
- Operation in NPN and PNP modes
- Light intensity control via 0-10 VDC voltage (10%-100%)
- Specially designed housing profile facilitating installation, featuring an efficient heat sink and integrated guides for filters

**IBLPX**

BAR LIGHT POWER X

Manufacturer: ISCON

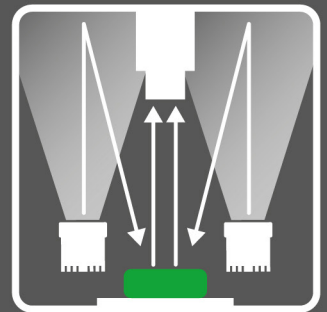
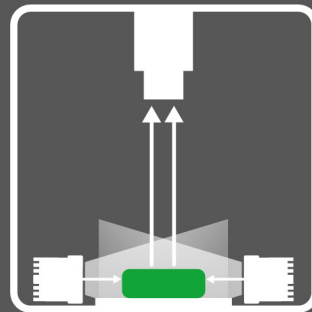
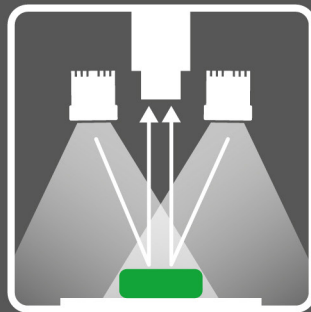
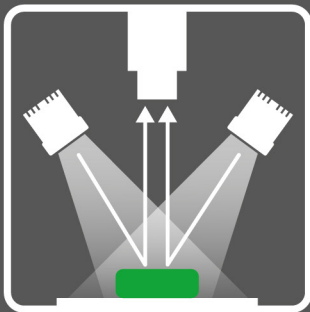
Product: LED Illuminator - Bar Light Power X

## Applications

- Visual inspection in industry
- Text recognition (OCR)
- Color and contrast detection
- Inspection of moving elements
- Surface defect analysis

The Iscon IBLPX is a line of LED illuminators offering high brightness and reliability in demanding industrial environments. Specifically designed for vision systems, they are ideal for detection, surface analysis, and visual inspection.

### ILLUMINATOR APPLICATION METHODS



## Reference Coding

| IBLPX                      |  |        |             |             |            |         |                       |  |  |
|----------------------------|--|--------|-------------|-------------|------------|---------|-----------------------|--|--|
| Type                       | Illuminated surface length                                       |        | Light color |             | Lens angle |         | Additional protection |  |  |
| -0 (OVERDRIVE)*            | -125   | 125mm  | -W          | White       | -6         | ±6      | /IP67                 |  |  |
| *Overdrive : 5x more power | -250   | 250mm  | -R          | Red         | -15        | ±15     |                       |  |  |
|                            | -375   | 375mm  | -G          | Green       | -25        | ±25     |                       |  |  |
|                            | -500   | 500mm  | -B          | Blue        | -40        | ±40     |                       |  |  |
|                            | -625   | 625mm  | -IR         | Infrared    | NL         | No Lens |                       |  |  |
|                            | -750   | 750mm  | -UV365      | Ultraviolet |            |         |                       |  |  |
|                            | -875   | 875mm  | -UV400      | Ultraviolet |            |         |                       |  |  |
|                            | -1000  | 1000mm |             |             |            |         |                       |  |  |
|                            | Possibility of manufacturing lengths in the range of 75-3000 mm. |        |             |             |            |         |                       |  |  |

#### Example 1:

IBLPX-375-W-15  
Illuminator IBLPX, without overdrive module, illuminated surface length 375 mm, white light color, 15-degree lens

#### Example 2:





IBLPX-O-375-W-15  
Illuminator IBLPX, with overdrive module, illuminated surface length 375 mm, white light color, 15-degree lens

#### Example 3: (additional IP67 protection)

IBLPX-O-375-W-15/IP67  
Illuminator IBLPX, with overdrive module, illuminated surface length 375 mm, white light color, 15-degree lens, additional IP67 protection

Table 1

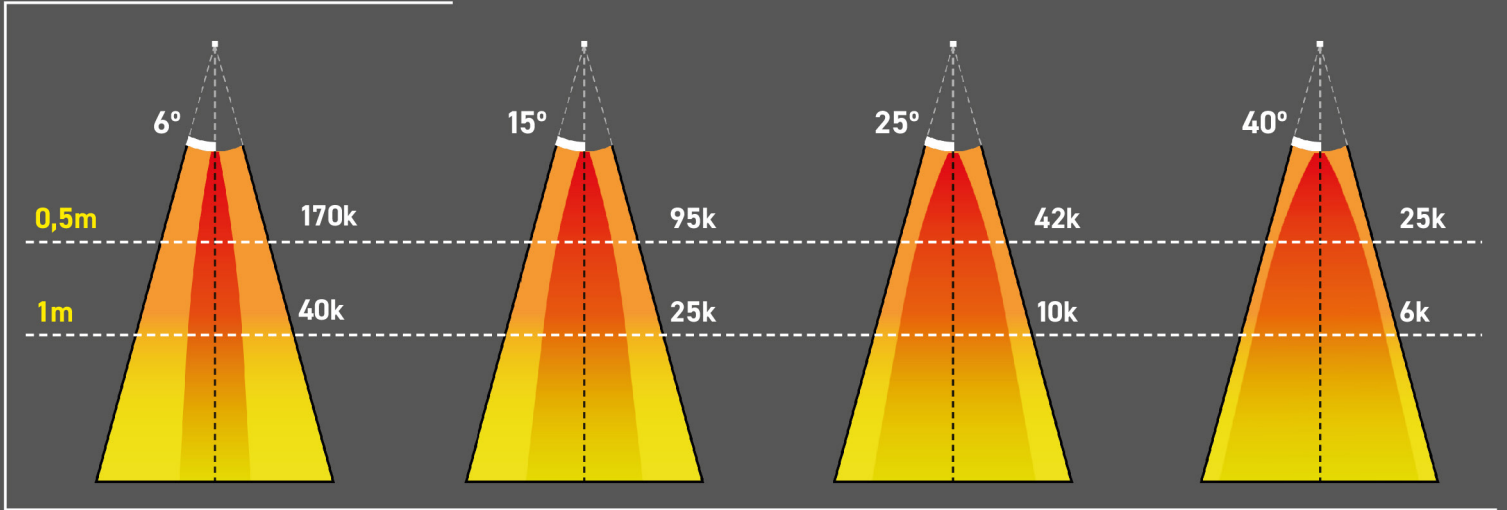
| IBLPX  | BASIC LENGTHS   |       |       |       |       |       |       |       |       |       |       |       |
|--|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | 125   | 200   | 250   | 300   | 375   | 500   | 625   | 750   | 875   | 1000  | 1125  | 1250  |
| Number of LEDs                                 | 5   | 8     | 10    | 12    | 15    | 20    | 25    | 30    | 35    | 40    | 45    | 50    |
| LED colors                                     | W-White R-Red G-Green B-Blue IR-Infrared (855nm) UV-Ultraviolet (365nm,400nm) |       |       |       |       |       |       |       |       |       |       |       |
| Max. current consumption without Overdrive (A) | 0.5   | 1.0   | 1.0   | 2.0   | 1.5   | 2.0   | 2.5   | 3.0   | 3.5   | 4.0   | 4.5   | 5.0   |
| Max. current consumption with Overdrive (A)    | 2.5   | 5.0   | 5.0   | 10.0  | 7.5   | 10.0  | 12.5  | 15.0  | 17.5  | 20.0  | 22.5  | 25.0  |
| Maximum power without Overdrive                | 12.0  | 24.0  | 24.0  | 48.0  | 36.0  | 48.0  | 60.0  | 72.0  | 84.0  | 96.0  | 108.0 | 120.0 |
| Maximum power with Overdrive                   | 60.0  | 120.0 | 120.0 | 240.0 | 180.0 | 240.0 | 300.0 | 360.0 | 420.0 | 480.0 | 540.0 | 600.0 |
| Weight [g]                                     | 430   | 580   | 680   | 780   | 930   | 1180  | 1430  | 1680  | 1930  | 2180  | 2430  | 2680  |

|                                   | TECHNICAL SPECIFICATIONS   |  |
|-----------------------------------|--|--|
|                                   | With overdrive module  | Without overdrive module   |
| Power supply                      | 24-30 VDC  |  |
| Power                             | See Table 1  |  |
| Current consumption               | See Table 1  |  |
| Operating mode                    | PNP/NPN - see connection diagram   | PNP - see connection diagram   |
| STROBE                            | Min. 5VDC / 10mA, PNP, NPN   | Min. 5VDC / 10mA   |
| Strobe signal duration            | Min 10 $\mu$ s Max 100ms   | Min 5 $\mu$ s max $\infty$   |
| Possible Strobe Delays            | Ok 5 $\mu$ s   |  |
| Trigger frequency                 | 10%, max 1000Hz  | $\infty$   |
| Light intensity control (Dimming) | -  | 0-10 VDC (10-100%). Maximum intensity can be achieved by connecting pin 5 to pin 1 (see connection diagram). Without this connection, light intensity is 10% of the nominal intensity. |
| Light color                       | UV (365nm), UV (400nm), Blue B (450nm), White W (6000K), Green G (530nm), Red R (625nm), IR (850nm)  |  |
| Connector                         | M12 / 5 PIN, male type   |  |
| Operating temperature             | od -10°C do 50°C   |  |
| Housing                           | Aluminum   |  |
| Cooling                           | convection   |  |
| Protection rating                 | from IP50 to IP67  |  |
| Light emission angle              | Lenses: 6°, 15°, 25°, 40°, NL-120°   |  |
| Compliance                        |     |  |

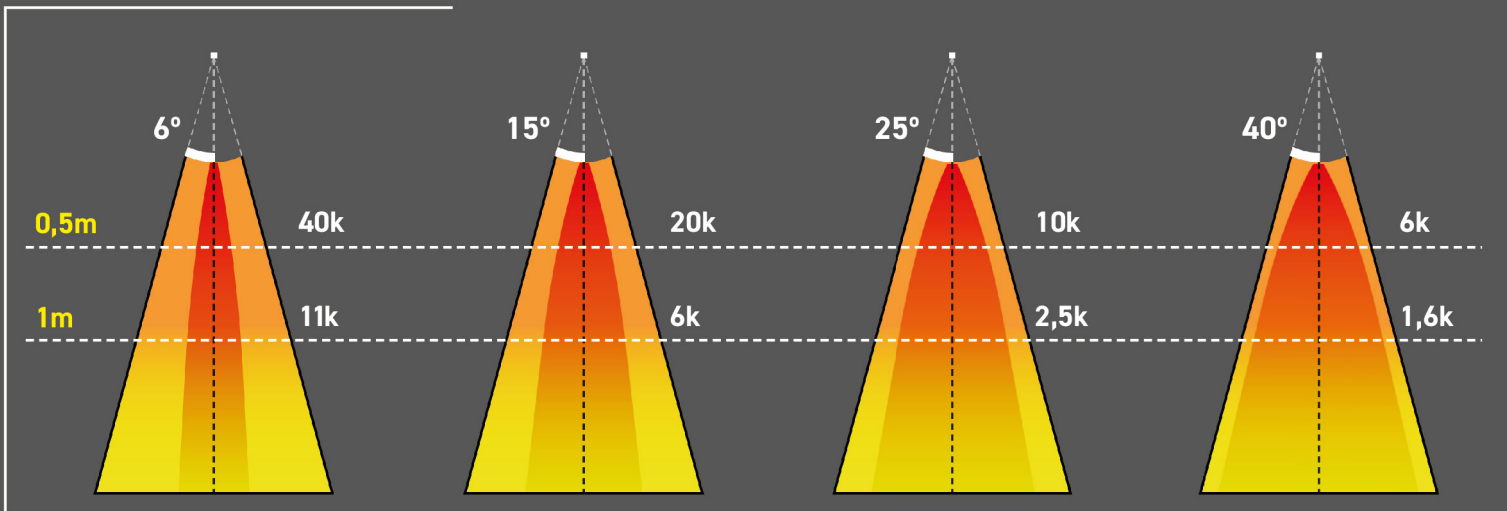
|                          |       | Illuminator's illuminated surface [mm] |             |             |             |             |             |             |             |             |             |             |             |             |
|--------------------------|-------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                          |       | 125                                    | 200         | 250         | 300         | 375         | 500         | 625         | 750         | 875         | 1000        | 1125        | 1250        |             |
| Distance from the object | 0,5 m | Lens angle 6°                          | 290 x 190   | 370 x 190   | 420 x 190   | 470 x 190   | 540 x 190   | 660 x 190   | 790 x 190   | 920 x 190   | 1050 x 190  | 1150 x 190  | 1300 x 190  | 1420 x 190  |
|                          |       | Lens angle 15°                         | 391 x 291   | 466 x 291   | 516 x 291   | 566 x 291   | 641 x 291   | 766 x 291   | 891 x 291   | 1016 x 291  | 1141 x 291  | 1266 x 291  | 1391 x 291  | 1516 x 291  |
|                          | 1 m   | Lens angle 25°                         | 591 x 491   | 666 x 491   | 716 x 491   | 766 x 491   | 841 x 491   | 966 x 491   | 1091 x 491  | 1216 x 491  | 1341 x 491  | 1466 x 491  | 1591 x 491  | 1716 x 491  |
|                          |       | Lens angle 40°                         | 963 x 863   | 1038 x 863  | 1088 x 863  | 1138 x 863  | 1213 x 863  | 1339 x 863  | 1463 x 863  | 1588 x 863  | 1713 x 863  | 1838 x 863  | 1963 x 863  | 2088 x 863  |
|                          | 0,5 m | Lens angle 6°                          | 475 x 300   | 550 x 300   | 600 x 300   | 650 x 300   | 725 x 300   | 850 x 300   | 975 x 300   | 1100 x 300  | 1220 x 300  | 1350 x 300  | 1475 x 300  | 1600 x 300  |
|                          |       | Lens angle 15°                         | 659 x 559   | 734 x 559   | 784 x 559   | 834 x 559   | 909 x 559   | 1034 x 559  | 1159 x 559  | 1284 x 559  | 1409 x 559  | 1534 x 559  | 1659 x 559  | 1784 x 559  |
|                          | 1 m   | Lens angle 25°                         | 1057 x 957  | 1132 x 957  | 1182 x 957  | 1232 x 957  | 1307 x 957  | 1432 x 957  | 1557 x 957  | 1682 x 957  | 1807 x 957  | 1932 x 957  | 2057 x 957  | 2182 x 957  |
|                          |       | Lens angle 40°                         | 1803 x 1703 | 1878 x 1703 | 1928 x 1703 | 1978 x 1703 | 2053 x 1703 | 2178 x 1703 | 2303 x 1703 | 2428 x 1703 | 2553 x 1703 | 2678 x 1703 | 2803 x 1703 | 2928 x 1703 |

Approximate values for IBLPX-375-x-x i IBLPX-0-375-x-x illuminators

## OVERDRIVE



## WITHOUT OVERDRIVE



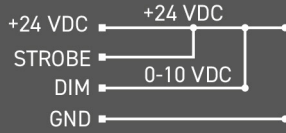
### Connection Diagrams

#### STROBE WITHOUT OVERDRIVE

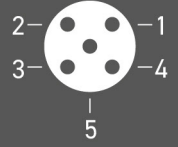
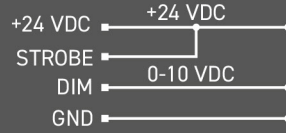
Example: IBLPX-125-W-15

|              |        |
|--------------|--------|
| 1 Brown (BN) | +24VDC |
| 2 White (WH) | NA     |
| 3 Blue (BU)  | GND    |
| 4 Black (BK) | STROBE |
| 5 Gray (GR)  | DIM    |

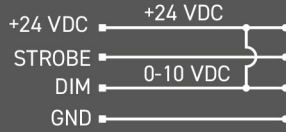
#### Continuous mode (100% brightness)



#### Continuous mode + DIMMING



#### STROBE mode (100% brightness)



#### STROBE mode + DIMMING

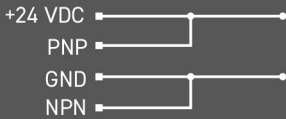


Connection of the illuminator in strobe mode without overdrive.  
Minimum strobe trigger current - 0.01 A / Maximum strobe frequency - 1000 Hz

#### STROBE OVERDRIVE

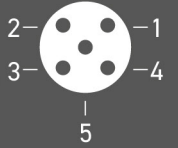
Example: IBLPX-O-125-W-15

|              |             |
|--------------|-------------|
| 1 Brown (BN) | +24VDC      |
| 2 White (WH) | NPN STROBE- |
| 3 Blue (BU)  | GND         |
| 4 Black (BK) | PNP STROBE+ |
| 5 Gray (GR)  | NA          |

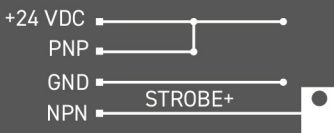


Connection of the illuminator in continuous operation mode.

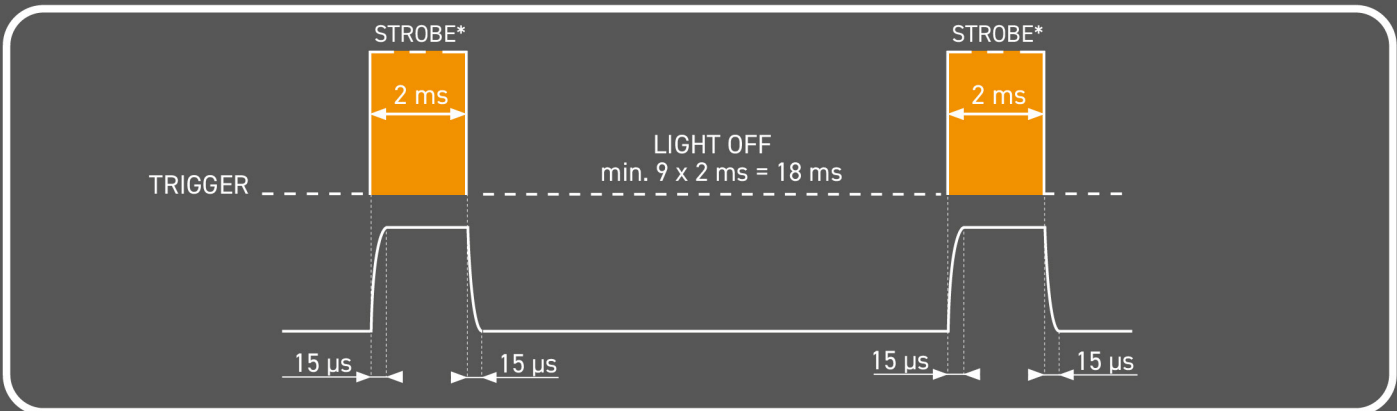
When the illuminator with strobe overdrive module is turned on, it flashes (approx. 1s) and then switches to continuous operation mode.



Connection of the illuminator in STROBE OVERDRIVE mode.  
PNP



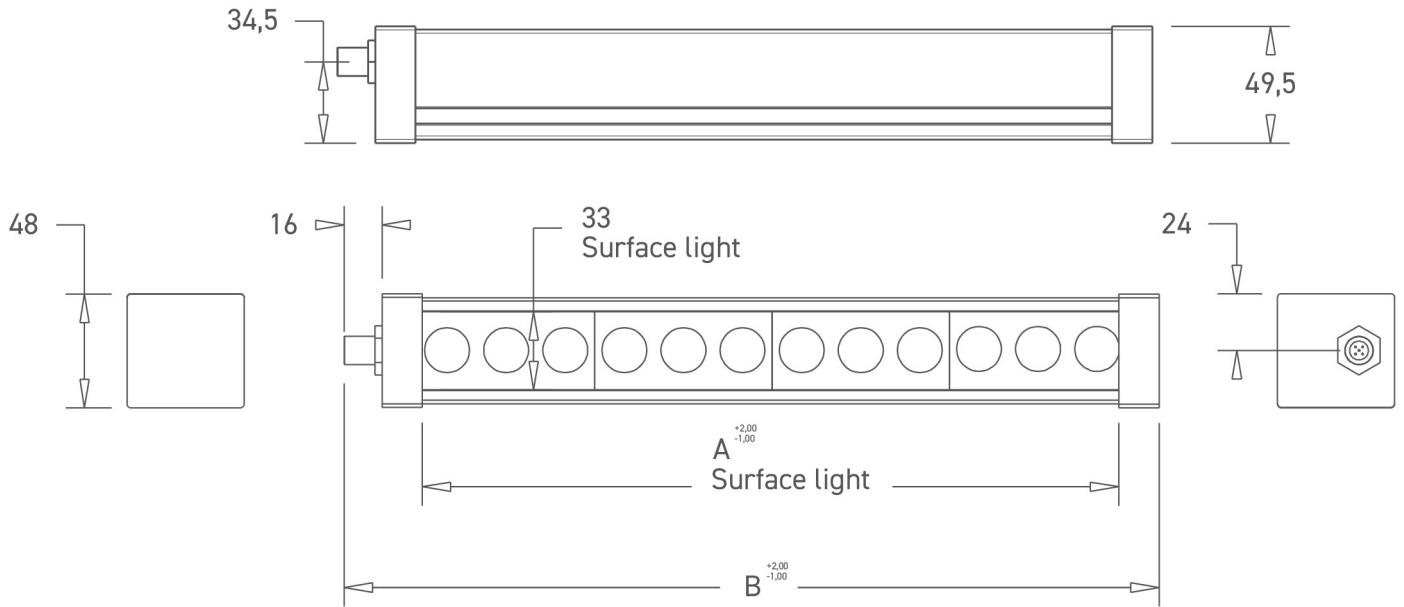
Connection of the illuminator in STROBE OVERDRIVE mode.  
NPN



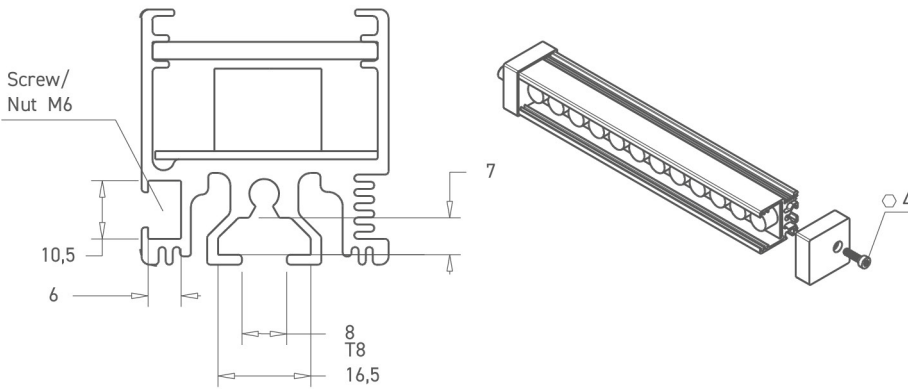
Mode If the duration of the trigger signal pulse is 5 milliseconds, the rest period between subsequent pulses must be equal to or longer than 45 milliseconds (9x5 = 45 ms).

\* Maximum strobe pulse duration: 100 ms

| IBLPX                               | 125 | 200 | 250 | 300 | 375 | 500 | 625 | 750 | 875 | 1000 | 1125 | 1250 |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| A - Illuminated surface length [mm] | 121 | 196 | 246 | 296 | 371 | 496 | 621 | 746 | 871 | 996  | 1121 | 1246 |
| B - Total length [mm]               | 173 | 248 | 298 | 348 | 423 | 548 | 673 | 798 | 923 | 1048 | 1173 | 1298 |

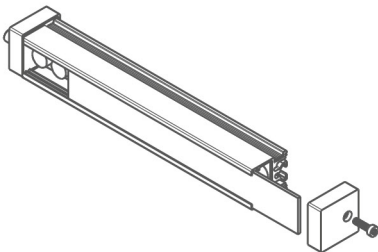


### Basic mounting



The illuminator can be rear-mounted using a T-slot and T-bolt (size 8) or side-mounted using an M6 screw/nut. It is recommended to mount it on the metal structure of the machine with maximum surface contact to reduce vibrations and improve heat dissipation.

### Filter Installation



Additional filters can be used with the illuminator. To install them, unscrew the end cap on the side opposite the power supply and insert the filter into the upper profile grooves.



## Accessories



### ICB Cable

|                           |
|---------------------------|
| ICB-2M-M12/FY-5PUR - 2m   |
| ICB-2M-M12/FY-5PVC - 2m   |
| ICB-5M-M12/FY-5PUR - 5m   |
| ICB-5M-M12/FY-5PVC - 5m   |
| ICB-10M-M12/FY-5PUR - 10m |
| ICB-10M-M12/FY-5PVC - 10m |
| ICB-15M-M12/FY-5PUR - 15m |
| ICB-15M-M12/FY-5PVC - 15m |
| ICB-25M-M12/FY-5PUR - 25m |
| ICB-25M-M12/FY-5PVC - 25m |



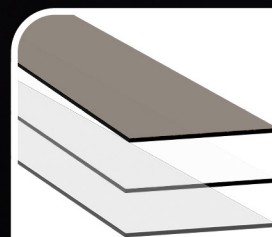
### ICBA Cable

|                            |
|----------------------------|
| ICBA-2M-M12/FY-5PUR - 2m   |
| ICBA-2M-M12/FY-5PVC - 2m   |
| ICBA-5M-M12/FY-5PUR - 5m   |
| ICBA-5M-M12/FY-5PVC - 5m   |
| ICBA-10M-M12/FY-5PUR - 10m |
| ICBA-10M-M12/FY-5PVC - 10m |
| ICBA-15M-M12/FY-5PUR - 15m |
| ICBA-15M-M12/FY-5PVC - 15m |
| ICBA-25M-M12/FY-5PUR - 25m |
| ICBA-25M-M12/FY-5PVC - 25m |



### T-bolt with nut

ISM0-T8-SN



### Filters

|                          |
|--------------------------|
| IBLPX-x-POL - polarizing |
| IBLPX-x-DIF - diffusing  |
| IBLPX-x-SAT - satin      |

## Additional Services

- Technical consulting
- Configuration
- Testing

- Custom parameter configuration available
- Training
- Demo equipment available
- Post-warranty service

## User Instructions

### Operating Modes:

**Continuous Mode:** Light operates continuously when 24V power is supplied.

**Strobe Mode:** Triggered by a camera or PLC signal.

### Installation Recommendations:

**Tilt Angle:** 15-55 degrees relative to the object.

**Distance:** Dependent on lens size and angle.

### Safety:

Do not look directly at the LEDs.

Do not touch the device during operation - the surface may be hot.



## Additional Documentation

Available Files:



Datasheets: Available online

## Contact & Support

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## Certificates & Warranty

Certificates:



**Warranty:** 24 months.

**Post-warranty service:** Yes.

