# DKL1813

## Darkfield light

Dark field allows the illumination of objects by using a very little angle, highlighting any surface faults. So that, in cracked or raised surfaces, the trajectory of the light produces bright areas.

Our system covers an area up to 85mm working at a distance between 8mm and 20 mm.

The most typical applications for this lighting are for the inspection of metallic objects with small defects or fissures.

### LIGHTING TECHNIQUE

**Lighting mode:** Darkfield
**Light source:** 60 high intensity LEDs
**Colour (nm):** See table 1
**LED life:** Until 100.000 hours

### MECHANICAL

**LxWxH:** See external plane
**Mounting:** 8 ( ø5.1 mm through)
**Housing material:** Black anodized aluminium
**Weight:** 380 g

DKL

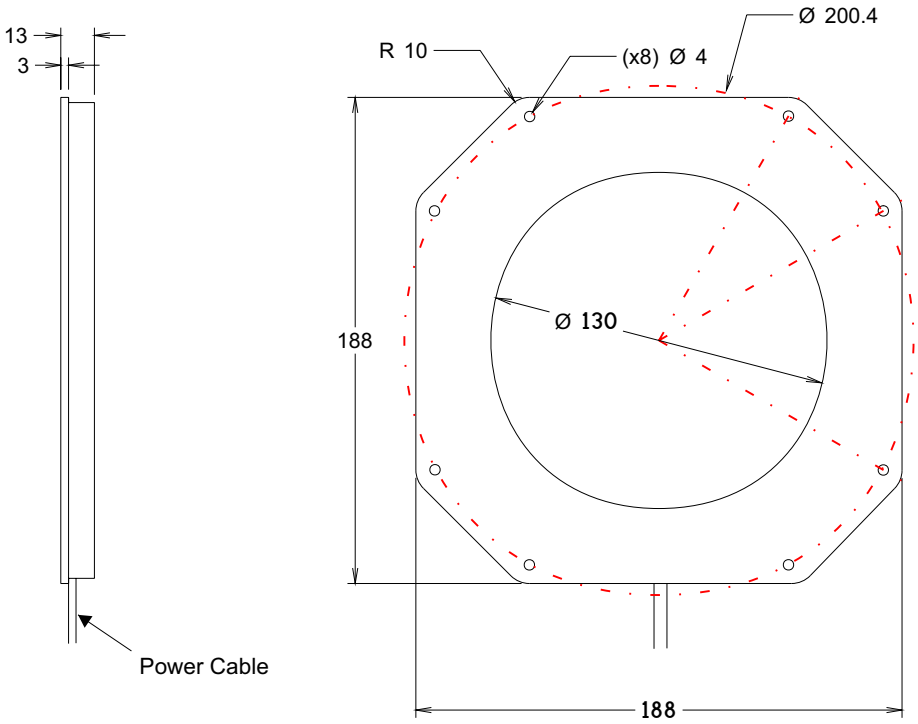
### ELECTRICAL

**Max. power supply:** 24VDC (Continuous models)
**Max. consumption:** 300mA
→ 642€
**Wire include:** 1.8m
**Wire terminal:** Brown -> 24VDC
Blue -> 0V (GND)

### ENVIRONMENTAL

**Max. Operating Humidity:** 95% non-condensing
**Operating temp:** 0..40ºC
**Storage temp:** 0..60ºC

### EXTERNAL PLANE



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## MODELS

Table 1.

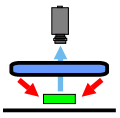
| Ligth colour | Wavelength | Type | Reference |
|---|---|---|---|
| UV | 400nm | Continuous | DKL1813A-400C |
| UV | 400nm | Strobe | DKL1813A-400S |
| Blue | 470nm | Continuous | DKL1813A-470C |
| Blue | 470nm | Strobe | DKL1813A-470S |
| Green | 525nm | Continuous | DKL1813A-525C |
| Green | 525nm | Strobe | DKL1813A-525S |
| Red | 630nm | Continuous | DKL1813A-630C |
| Red | 630nm | Strobe | DKL1813A-630S |
| Near infrared | 880nm | Continuous | DKL1813A-880C |
| Near infrared | 880nm | Strobe | DKL1813A-880S |
| Infrared | 940nm | Continuous | DKL1813A-940C |
| Infrared | 940nm | Strobe | DKL1813A-940S |
| White | ----- | Continuous | DKL1813A-W00C |
| White | ----- | Strobe | DKL1813A-W00S |
| Others | ----- | ---- | Consult |

## COMPLEMENTS

Table 2.

| Complement | Type | Reference |
|---|---|---|
| Strobe controller with 3 outputs | Strobe | VST33I |

## LIGHTING MODES



### DARK FIELD LIGHT

Direct light of high intensity that falls on the object with very little angle with regards to the surface where it lies.
In that way cracked or raised surfaces interfere in the trajectory of the light producing bright areas.
The most common applications for this technique are those to verify engravings, (laser), or defects on the surface.

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