

DARKFIELD LIGHT

DF-35

Designed for relief and surface illumination. Suitable for DPM texts and codes illumination.



HOMOGENOUS LIGHT FIELD

ANALOGUE CONTROL OF LIGHTING INTENSITY

COMPACT DESIGN

LIGHT OPERATING MODES

PERMANENT ILLUMINATION MODE

The light is designed for both the permanent and light-triggering mode. For permanent illumination bring the voltage of 10-24 V to the pin number 4 (black wire). The light is ON during the time when the 24 V EN signal is activated. Use a PCL, camera or another binary signal source. For the light intensity control, please see the text below.

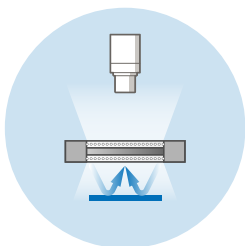
LIGHT TRIGGERING MODE

Light triggering mode saves energy and extends the lifetime of the light. Trigger operation mode is recommended when a parallel operation of 2 or more lights might affect the quality of the acquired image. To start using a triggering mode, bring the pin number 4 (black wire) to a 10-24 V signal. The light is ON when a voltage of 24 V is present at pin number 4 then. Use a PCL, camera, or another binary signal source for triggering. For the light intensity control, please see the text below.

LIGHT SOURCE INTENSITY REGULATION

The light intensity might be regulated by an analogue voltage, PWM signal or an external controller. In case of using an analogue signal, the light intensity might be regulated in a linear way at a pin number 4 by the voltage span of 2.7 -10 V. Bringing a voltage of 10-24 V to the pin number 4, the light works at its maximum intensity. The maximum PWM frequency is ≤ 40 kHz.

WAYS OF USE



ORDERING CODE

example of the ordering code

DF

-

35

W

Darkfield Light

Ø of Active Area

Wavelength

CONFIGURATION

Model	Wavelength [nm]	Ø of Active Area [mm]	LED Beam Angle [°]	Risk Group (EN 62471)
DF-35W	white	35	30	RG 0
DF-35IR	850	35	30	RG 1
DF-35R	625	35	30	RG 0
DF-35B	470	35	30	RG 0

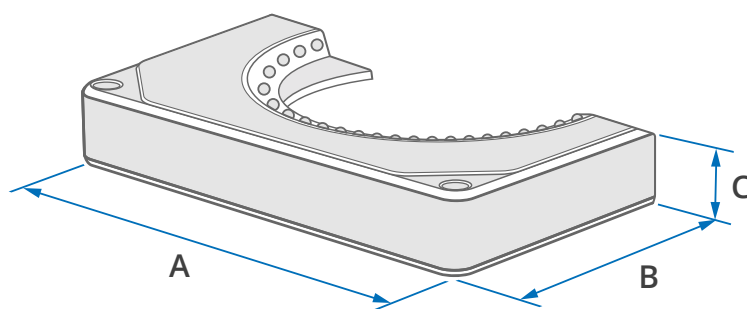
ELECTRIC PARAMETERS

Model	DF-35W	DF-35IR	DF-35R	DF-35B
U_n Voltage Span	20-28 V	15-28 V	20-28 V	20-28 V
U_{jm} Nominal Voltage	24 V DC	24 V DC	24 V DC	24 V DC
I_{jm} Nominal Current	170 mA	110 mA	-	170 mA
P Input	4.1 W	2.6 W	-	4.1 W
U_{trig} Trigger Voltage	≥ 10 - 24 V ²	U_{EN} Analogue Dimming	≥ 2.7 .. ≤ 10 V ²	
I_{trig} Trigger Current	2.3 mA ²	I_{EN} PWM Dimming	> 10 V .. ≤ 24 V ¹	

¹ PWM maximal rate is ≤ 40 kHz ² EN (Enable) trigger signal values, M8 connector - pin number 4

DIMENSIONS & WEIGHT

A Length [mm]	100
B Width [mm]	51
C Height [mm]	13,7
 Weight [g]	95



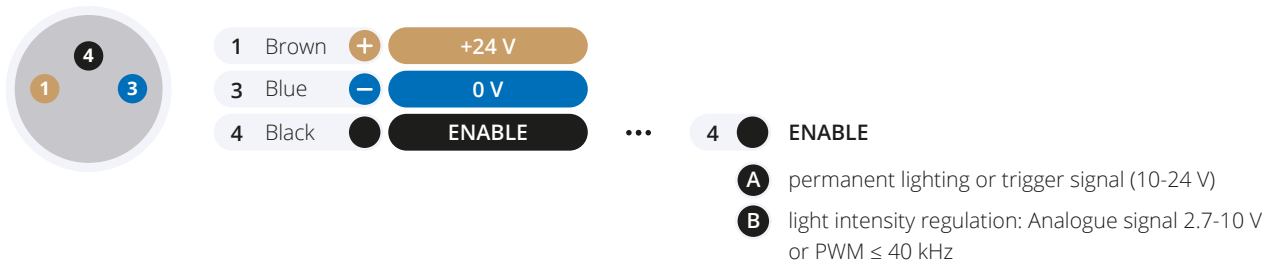
i For more details please see our 2D drawings.

TECHNICAL DATA

IP Category: IP67	Protection Category: III	Ambient Temperature: -20 - +40 °C	Isolation Resistance: 500 V	Housing Material: Aluminium alloy
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CONNECTOR M8-3PIN ASSIGNMENT

light connector front view



ACCESSORIES

✓ Straight Cable M8-3PIN (5 m)

OPTIONAL ACCESSORIES

+ Angular Cable M8-3PIN (5 m)

+ Controller **CM-01**

 SmartView

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VISION
PARTNER**



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