

LED Illuminators DL2 Series

Revisione IT2602

2026



**INNOVATIVE
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DL2 SERIES

LED Matrix - Direct illuminators for vision systems and optical machines

Compact and Robust Design : The DL2 Series comes in a slim aluminum housing, combining strength, durability, and efficient heat dissipation in a compact form.

Integrated High-Performance Lighting: Each unit includes a 24 V DC driver and a high-brightness LED matrix with lenses, ensuring uniform and powerful illumination.

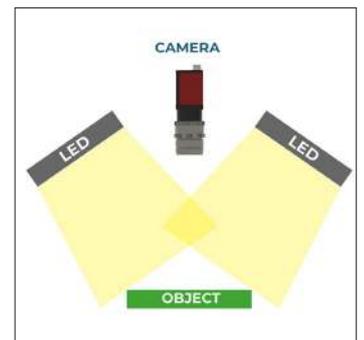
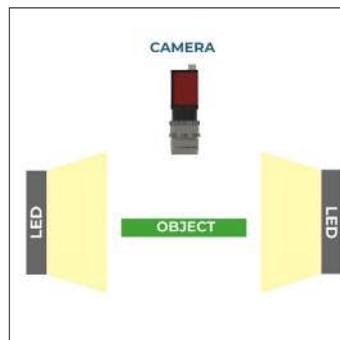
Advanced Thermal Management: Thanks to HTTM© technology, heat is quickly transferred to the housing, extending LED life and ensuring stable performance.

Reliability and Safety Features: DL2 illuminators feature reverse polarity protection and 48-hour certified testing, guaranteeing reliability in industrial use.

Practical Industrial Connectivity: A 3-pin quick-disconnect connector, fixing mask, and RCCR© driver provide easy installation and consistent chromatic stability.

Key Features

- Easy installation and very competitive price
- Compact enclosure, suitable for OEMs and SIs for machine integration
- 24 VDC power supply via industrial-standard 3-pin M8 cable
- Cable with connector, easy assembly and disassembly for maintenance
- LED matrix with built-in lens
- Highly directional and homogeneous light beam
- High brightness and long operating life thanks to latest-generation LEDs

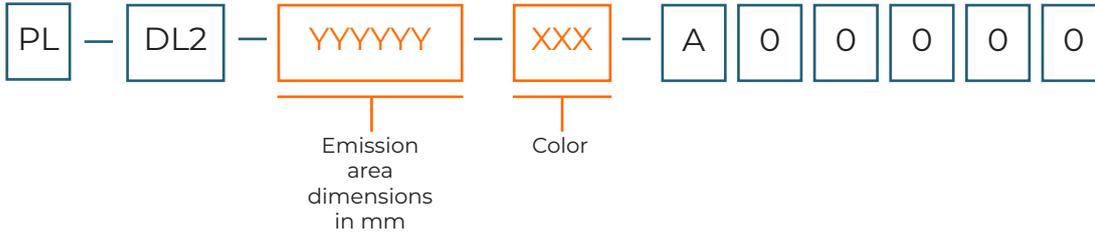


Applications

- Machine Vision applications
- ROBOT guide
- Pick and Place
- Logistic applications
- Video recording
- Ultra-Fast imaging
- Barcode reader
- Optical inspection

Composition of the product identification code

The code in orange are to be filled in according to the desired configuration



Emission area

Highlighted models are from normal production - Others are on request and may have longer production times

Active light area (mm)					
25 x 100 (025100)	25 x 200 (025200)	25 x 300 (025300)	25 x 400 (025400)	25 x 500 (025500)	25 x 600 (025600)
25 x 700 (025700)	25 x 800 (025800)	50 x 50 (050050)	50 x 100 (050100)	50 x 200 (050200)	50 x 300 (050300)
100 x 100 (100100)	100 x 200 (100200)	100 x 300 (100300)	200 x 700 (020070)		

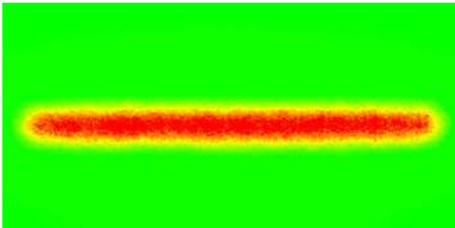
Color - LED type

WHI : Neutral White

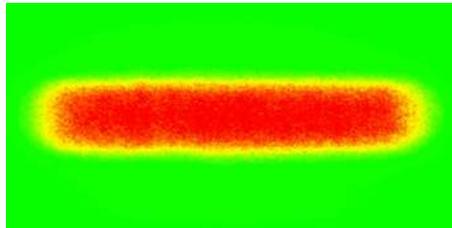
BLU : Standard Blue 465 nm

RED : Standard Red 630 nm

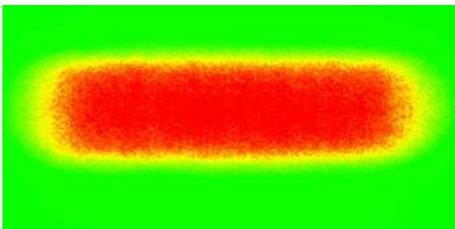
LED emission



Reference 24 x 400 - 80 mm distance

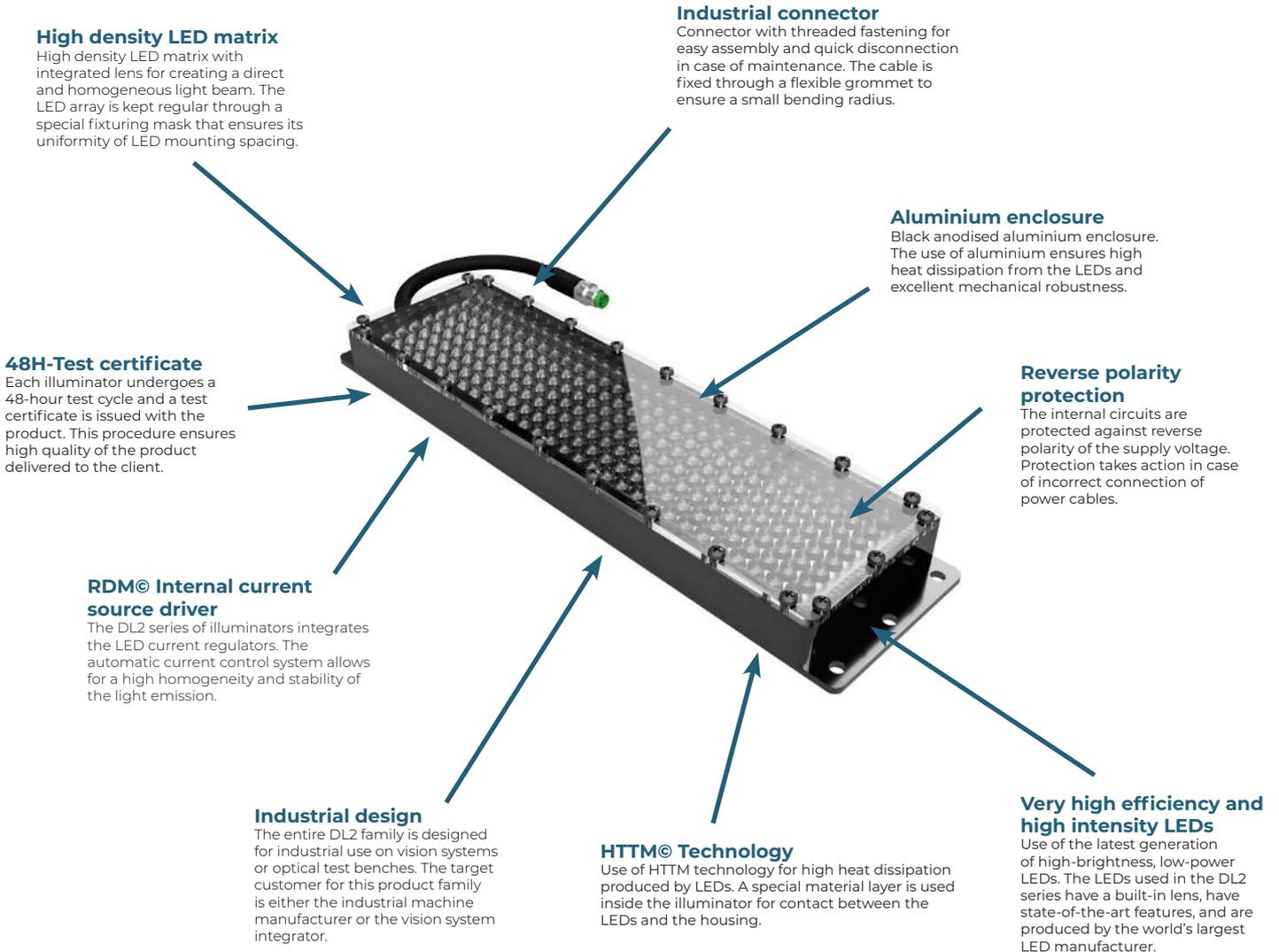


Reference 24 x 400 - 180 mm distance



Reference 24 x 400 - 260 mm distance

Why choose a RODER DL2 series illuminator ?



Main features common to the DL2 family

Features	Value
Supply voltage	24 Vdc +/- 5%
IP rating	IP40
Temperature range	0° - 50° C
Electrical connection	M8 3-pin connector with threaded ring nut
Certifications	CE

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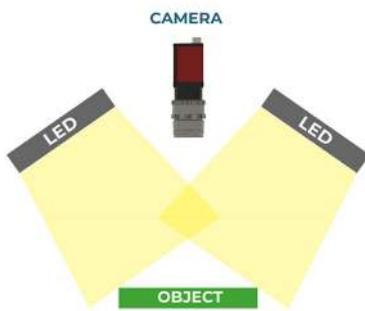
The DL2 series illuminators are designed to be easily integrated into various vision systems and to offer a low-cost, highly customizable lighting solution.

High brightness in a small space : the DL2 series consists of a matrix of high-density, high-brightness LEDs. The DL2 series illuminators are used in confined spaces, where direct, high-intensity illumination is required. The DL2 series is designed for system integrators and OEMs who need to integrate the illuminator into a machine or custom devices.

RMD® Technology : The DL2 series of illuminators integrates the RMD® technology (RODER Multi Driver). The automatic current control system allows for a high homogeneity and stability of the light emission

HTTM® Technology : use of HTTM® technology (High Thermal Transmission Material) to dissipate the heat generated by LEDs. Proper heat dissipation enables the light sources and control electronics to maintain optimum working conditions. A special material layer is used inside the illuminator for contact between the LEDs and the housing. In this way, the temperature of the LEDs is kept constant, the brightness is stable over time, and the LED has a longer service life.

Typical configuration



Direct illumination

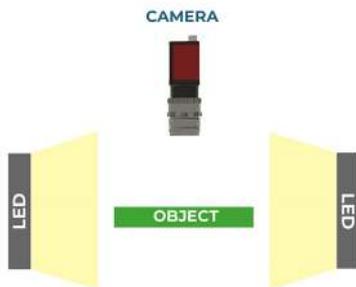
The DL2 series of illuminators can be used for direct illumination of the object to be inspected. The angle of incidence of the light can be chosen according to the characteristics of the object, the degree of detail to be highlighted or the type of inspection to be carried out.



Low cost backlight

The DL2 series of illuminators can be used to make very economical backlights. By placing a diffuser glass, it is possible to realise economical backlights with high luminosity.

Note:
The diffuser must be positioned at the optimal distance from the illuminator to ensure optimal uniformity. The diffuser is not available as a standard product.



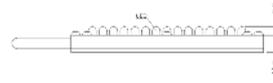
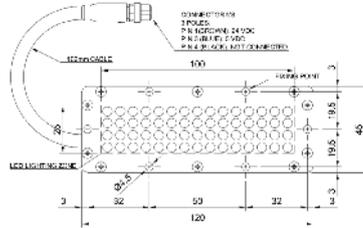
Direct illumination

The DL2 series of illuminators can be used for low-angle lighting systems. Installing the illuminators in low-angle mode makes it possible to highlight defects or features that would not be visible or hardly noticeable in other lighting modes

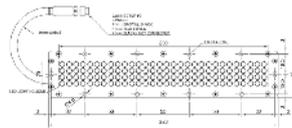
DL2 series - standard models



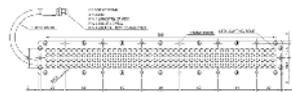
DL2 25 x 100



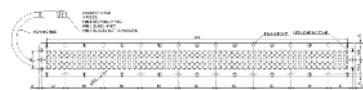
DL2 25 x 200



DL2 25 x 300



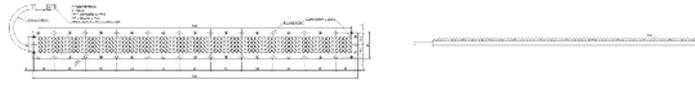
DL2 25 x 400



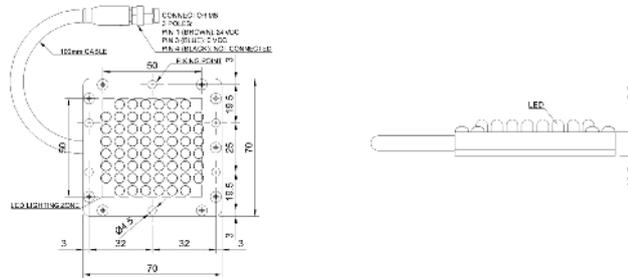
DL2 series - standard models



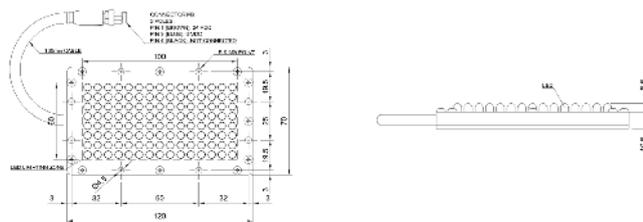
DL2 25 x 500



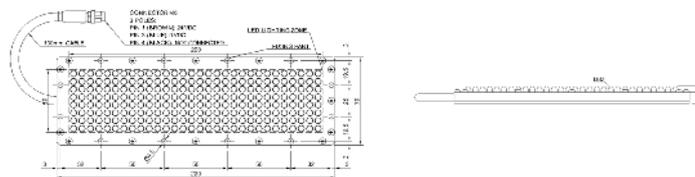
DL2 50 x 50



DL2 50 x 100



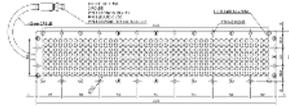
DL2 50 x 200



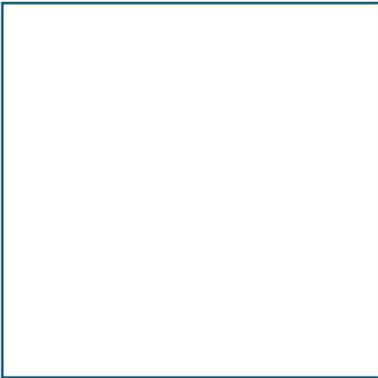
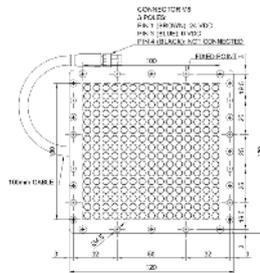
DL2 series - standard models



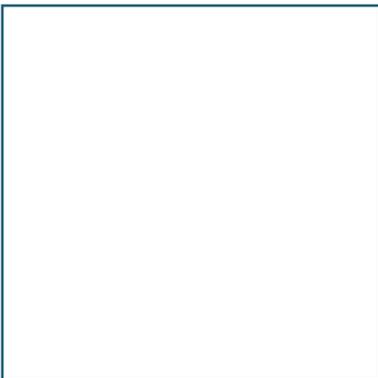
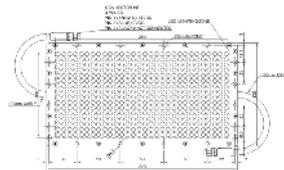
DL2 50 x 300



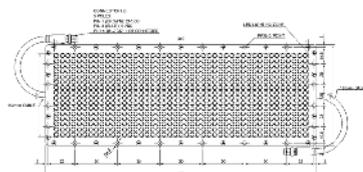
DL2 100 x 100



DL2 100 x 200



DL2 100 x 300



Standardized and catalogue-coded products - special models available upon request

Item Code	Product Code	Light emitting area	Color	Consumption	N. LEDs
10-07-65	PL-DL2-025100-RED-A00000	25 x 100	RED	0.12A @24vdc	60
10-07-66	PL-DL2-025100-WHI-A00000	25 x 100	WHITE	0.12A @24vdc	60
10-07-73	PL-DL2-025100-BLU-A00000	25 x 100	BLUE	0.12A @24vdc	60
10-07-67	PL-DL2-025200-RED-A00000	25 x 200	RED	0.24A @24vdc	120
10-07-68	PL-DL2-025200-WHI-A00000	25 x 200	WHITE	0.24A @24vdc	120
10-07-78	PL-DL2-025200-BLU-A00000	25 x 200	BLUE	0.24A @24vdc	120
10-07-80	PL-DL2-025300-RED-A00000	25 x 300	RED	0.36A @24vdc	180
10-07-84	PL-DL2-025300-WHI-A00000	25 x 300	WHITE	0.36A @24vdc	180
10-07-83	PL-DL2-025300-BLU-A00000	25 x 300	BLUE	0.36A @24vdc	180
10-07-86	PL-DL2-025400-RED-A00000	25 x 400	RED	0.48A @24vdc	240
10-07-90	PL-DL2-025400-WHI-A00000	25 x 400	WHITE	0.48A @24vdc	240
10-07-89	PL-DL2-025400-BLU-A00000	25 x 400	BLUE	0.48A @24vdc	240
10-07-92	PL-DL2-025500-RED-A00000	25 x 500	RED	0.60A @24vdc	300
10-07-96	PL-DL2-025500-WHI-A00000	25 x 500	WHITE	0.60A @24vdc	300
10-07-95	PL-DL2-025500-BLU-A00000	25 x 500	BLUE	0.60A @24vdc	300
10-07-69	PL-DL2-050050-RED-A00000	50 x 50	RED	0.12A @24vdc	60
10-07-70	PL-DL2-050050-WHI-A00000	50 x 50	WHITE	0.12A @24vdc	60
10-08-30	PL-DL2-050050-BLU-A00000	50 x 50	BLUE	0.12A @24vdc	60
10-08-32	PL-DL2-050100-RED-A00000	50 x 100	RED	0.24A @24vdc	120
10-08-36	PL-DL2-050100-WHI-A00000	50 x 100	WHITE	0.24A @24vdc	120
10-08-35	PL-DL2-050100-BLU-A00000	50 x 100	BLUE	0.24A @24vdc	120
10-08-38	PL-DL2-050200-RED-A00000	50 x 200	RED	0.48A @24vdc	240
10-08-42	PL-DL2-050200-WHI-A00000	50 x 200	WHITE	0.48A @24vdc	240
10-08-41	PL-DL2-050200-BLU-A00000	50 x 200	BLUE	0.48A @24vdc	240
10-08-44	PL-DL2-050300-RED-A00000	50 x 300	RED	0.72A @24vdc	360
10-08-48	PL-DL2-050300-WHI-A00000	50 x 300	WHITE	0.72A @24vdc	360
10-08-47	PL-DL2-050300-BLU-A00000	50 x 300	BLUE	0.72A @24vdc	360
10-08-50	PL-DL2-100100-RED-A00000	100 x 100	RED	0.48A @24vdc	240
10-08-54	PL-DL2-100100-WHI-A00000	100 x 100	WHITE	0.48A @24vdc	240
10-08-53	PL-DL2-100100-BLU-A00000	100 x 100	BLUE	0.48A @24vdc	240
10-08-56	PL-DL2-100200-RED-A00000	100 x 200	RED	0.96A @24vdc	480
10-08-60	PL-DL2-100200-WHI-A00000	100 x 200	WHITE	0.96A @24vdc	480
10-08-59	PL-DL2-100200-BLU-A00000	100 x 200	BLUE	0.96A @24vdc	480
10-08-62	PL-DL2-100300-RED-A00000	100 x 300	RED	1.44A @24vdc	720
10-08-66	PL-DL2-100300-WHI-A00000	100 x 300	WHITE	1.44A @24vdc	720
10-08-65	PL-DL2-100300-BLU-A00000	100 x 300	BLUE	1.44A @24vdc	720

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