

*LED Illuminators
DC7 Series*

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**INNOVATIVE
SOLUTIONS
PROVIDER**

DC7 SERIES

High-Density Modular LED Illuminators for Diffuse Machine Vision Applications

Modular Diffuse Matrix: High-density LED modules based on 100mm increments provide exceptional light homogeneity for short-distance inspection tasks.

Uniform Current Regulation: Integrated MCCD technology maintains constant current across the matrix, ensuring stable light output regardless of voltage fluctuations.

Advanced Thermal Management: HTTM technology efficiently transfers heat to the frame, maximizing LED lifespan and maintaining high operational reliability.

Fast Industrial Integration: Standard M8 3-pin connectors and high-speed drivers facilitate rapid installation and synchronization with PLC or camera triggers.

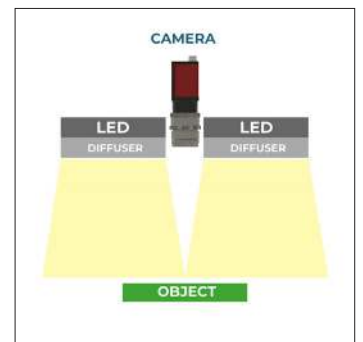
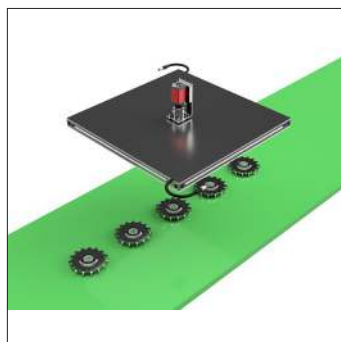
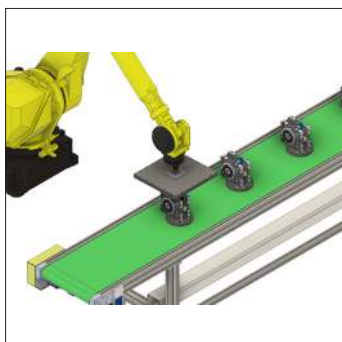
Key Features

- Modular construction using 100mm units for custom geometries.
- High-density LED matrix for superior diffuse light homogeneity.
- Integrated MCCD driver for constant current and voltage immunity.
- Compact low-profile frame optimized for OEM machine builders.
- Central aperture option for coaxial camera and optics mounting.
- HTTM technology for efficient thermal dissipation and durability.
- Standard industrial M8 3-pin connector for rapid connectivity.
- Reliability tested for 48 hours with provided test certification.
- Protective glass shield against dust and environmental contaminants.
- Made in Italy design under ISO9001 quality standards.



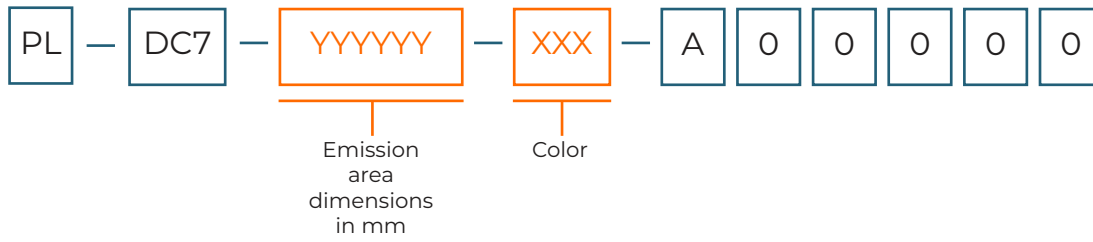
Applications

- Robot-guided pick and place systems.
- High-speed diffuse surface inspection.
- Automated pharmaceutical packaging verification.
- Food and beverage label inspection.
- Short-distance uniform lighting requirements.



Composition of the product identification code

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



Emission area

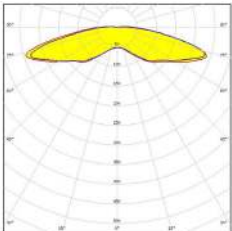
Highlighted models are from normal production - Others are on request and may have longer production times

Active light area (mm)					
300 x 300 (050050)	500 x 500 (050050)				

Color - LED type

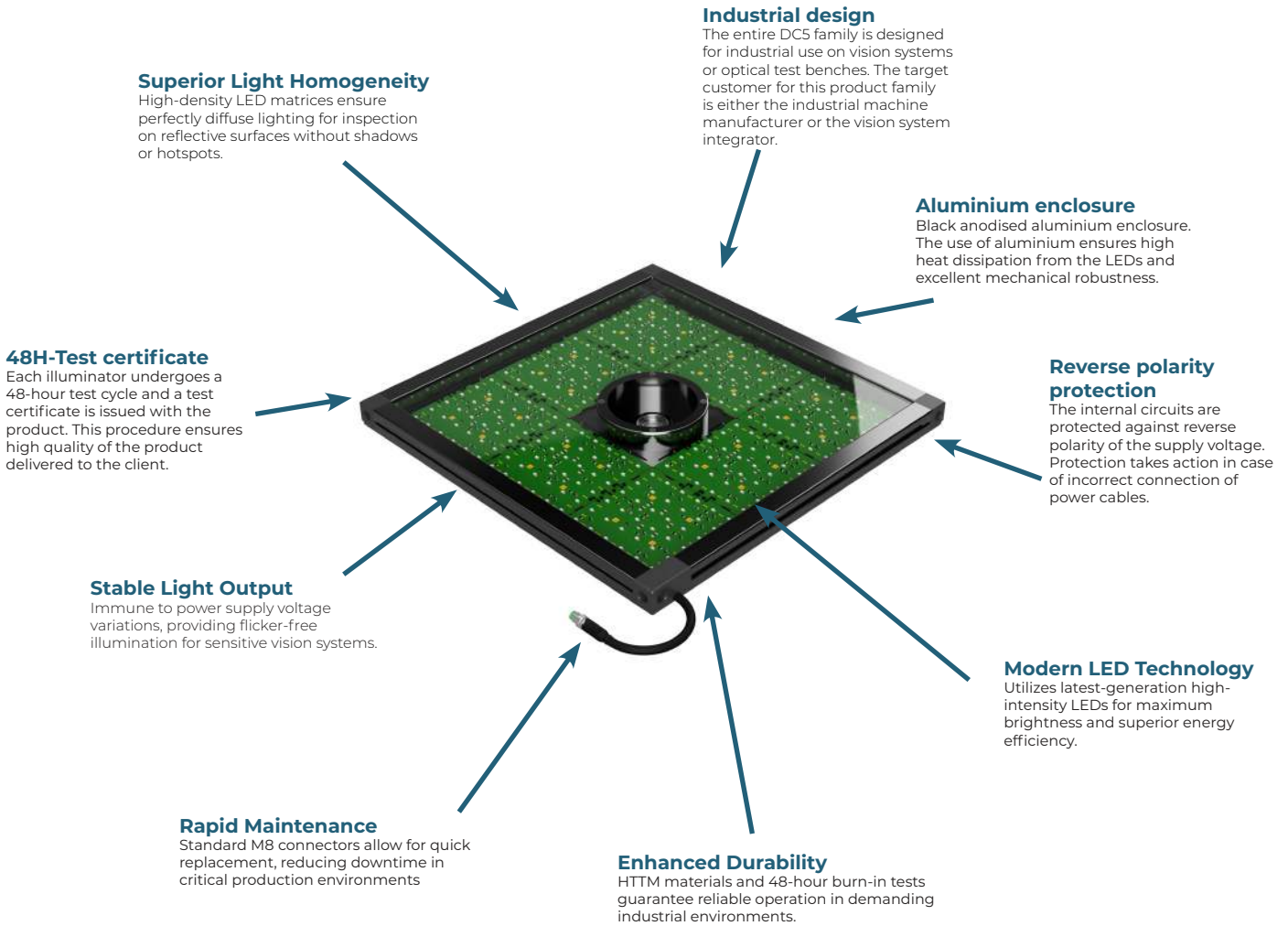
WHI : Neutral White
 BLU : Standard Blue 465 nm
 RED : Standard Red 630 nm

LED emission



Typical LED output

Why choose a RODER DC7 series illuminator ?



Main features common to the DC7 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

The DC7 series is a professional range of modular LED illuminators specifically engineered for applications requiring high-density diffuse lighting and a compact footprint.

Designed for OEMs and system integrators, these illuminators feature a modular architecture based on 100mm increments, allowing for flexible configurations to suit unique machine geometries.

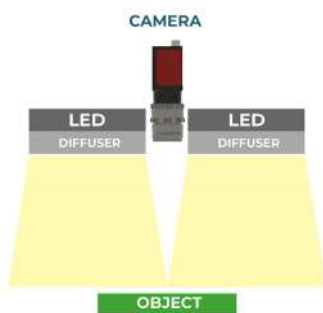
The series utilizes high-density LED matrices to provide exceptional light homogeneity, making it ideal for inspecting reflective surfaces or complex parts at short distances.

At the core of the DC7 series is the Multi Constant Current Driver (MCCD) technology, which ensures uniform intensity across the entire light source by regulating current independently of voltage fluctuations. Thermal stability is maintained through High Transmission Thermal Material (HTTM), which effectively dissipates heat to ensure long-term reliability.

With integrated protection glass, reverse polarity shielding, and standard M8 connectivity, the DC7 series offers a robust, low-profile solution.

Manufactured in Italy under ISO9001 standards, these illuminators support high-speed synchronization and PWM control, providing a high performance-to-price ratio for modern automated vision systems.

Typical configuration



Direct illumination

The DC7 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.

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CONTATTI



RODER SRL
Via Aldo Moro 15/A
10080 Oglianico (TO) - Italia



+39 0124 34301



info@roder.it
info@innovacheck.com

www.roder.it

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