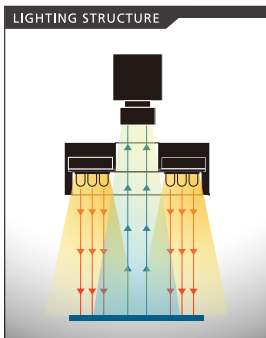


Flat Direct Irradiate Ring Illumination [IDR-F33/16 Series]

Ultra-thin ring illumination specialized for telecentric lenses (especially $\phi 16$ type)

※Recommended WD: 40mm and 65mm

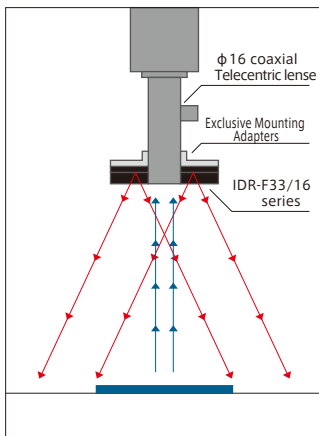
- Applications**
- Semiconductor/Electronic components industry etc.
 - ➔ Inspection of characters on chip components/ Electronic parts ,etc.
 - Automotive parts/ on-board/ machinery parts industry etc.
 - ➔ Recognition of characters and bar codes on plastic/ resin parts etc.
 - FPD/Liquid crystal glass industry etc.
 - ➔ Alignment mark recognizing/positioning



Product Lineup Two types: red and white.

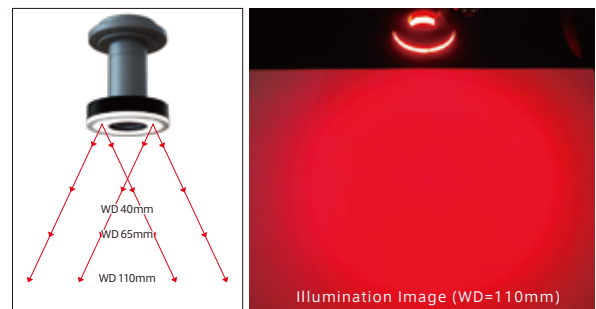
Compact & Lightweight Design

With its slim design featuring a top thickness of only 8mm (including a 2mm internal diffusion plate), it significantly reduces the required installation space. The design is compatible with a barrel diameter of $\phi 16$ telecentric lenses.

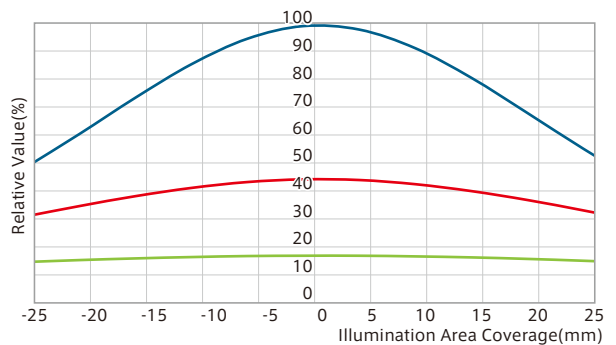


Wide-Range & High-Output Illumination

A wide area can be imaged by flat illumination from the top.



Uniform illumination is possible within a wide range of 40mm to 110mm for telecentric lens field of view.



— WD=40
— WD=65
— WD=110

Line illumination products

- IDBB-LSRF
- IDBC-LSR
- IDBB-LSRH
- IDBB-LSRA
- IDBB-LSRS
- IDBC-LSRC
- IDBB-LSRC
- IDBC-RE
- IDBB-RE
- IDBA-RK
- IQDH-RE
- IMAR-D_8ch
- IDR-LA-8ch
- IDRA-T-8ch
- IMAR-D
- IMAR-CT D
- IHR-LE
- IHRB · IHRA
- IDR-F
- IDR-F33/16
- IDR
- IDR-LA
- IDRA-T
- IFR · IPR
- IDBA-HM
- IDBA-HMS
- IDBA-HMS-IR
- IDBA-FD
- IDBA-LEH2
- IDBA-LEH
- IDBA-LE
- IDBA-SE
- IDBA-SL
- IDBA
- IDBA-Q
- IFLA · IFLB
- IDHM
- IHMA
- IHMA-V
- IFPA
- IFD
- IFD-IR
- IHMA-40D
- IFPA-D
- IPOC
- IFHA
- IDDB-KH · IDDA-KH
- IDUB
- IDD
- IDD-CB
- IQD · IQDH
- IQDA-CB
- IFVA · IFVB
- IFVA-ST
- IFV
- IV-14 · IV-30
- IHV-20 · IHVE-21

Bar illumination products

- Transmitted/area illumination products
- Special illumination products
- Coaxial illumination products
- Dome illumination products
- Infrared
- Infrared
- IMAR-RGB
- IDDA-KH-RGB
- RGB Full-color
- ISU
- ISS

Controller products

- Introduction of Customization
- High-speed/High-resolution/stereo/3D products
- ISC-24
- Image capture evaluation kit products
- Kit products
- IDMU
- ILP
- ILC
- ILV
- ILS
- IPPA_G · IRPA_G
- IPSA · IPPA
- IDGC
- IDPA
- IDCA
- IMC
- IWDV-24
- IWDV(S)-48
- ISC
- IJS
- IJS-30M2-TP/SS
- ILS-40M2-PI/SS
- SAG
- SLLUB
- LLUB
- IFIC

Imaging Example

High contrast imaging is possible by combining this ring illumination with a coaxial spot light.

Applications: Alignment mark, QR code, Inspection of Character/Electronic Component/Semiconductor, etc.

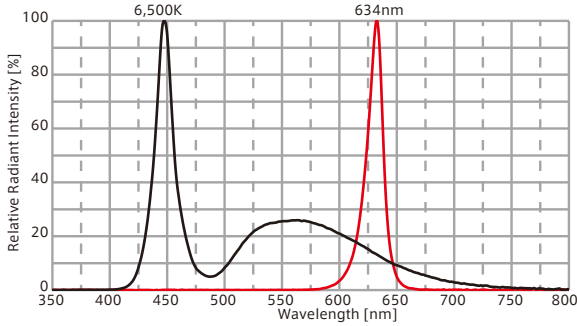
Imaging conditions: ×1 WD=65mm



Imaging conditions: ×2 WD=40mm



Optical Spectrum (Ref. Value)



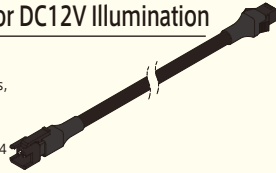
Model	Color	Power Consumption(W)	Input Voltage	SAG(※)	Applicable Controller	Drawing
IDR-F33/16RS	R	2	DC12V	A8	IDMU Series (P.193), ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive Controllers, etc.	1
IDR-F33/16WS	W			D3		

※SAG: The maximum instantaneous upper limit output voltage setting value in the controller for the corresponding illumination when used in combination with the Overdrive controller.

Singal Type Extension Cable For DC12V Illumination

I-CB-S Series

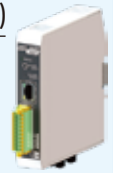
When used for moving parts such as robots, please use the I-CB-S_R-C02 series, which manufactured with robust robot cable with high flexibility. For DC24V model, please use the I-CB-S_-24V series or I-CB-S_R-24-C02 series



Recommended Digital Controller(PWM Control)

IDMU Series

Output control: 1,000 Levels
Compact PWM controller with DC24V input voltage, ideal for installation inside panels
Expandable up to 40 channels by linking units
Equipped with programming and camera trigger output functions, making it versatile.



Adapter for IDR-F33/16

IHL-33/16-5

This is a design that fits the barrel diameter of φ16 telecentric lenses. It can be used to fix both the IDR-F33/16 series and φ16 telecentric lenses. (Figure 2)



Polarizing Plate for IDR-F33/16

IKR-F-PL Series

This is a polarizing plate that attaches to the front of IDR-F33/16. By attaching a PL filter to the camera lens side as well, it is possible to cancel out object glare and surface reflections.



Model	Applicable Illumination
IKR-F33/16-PL	IDR-F33/16

