

NEW

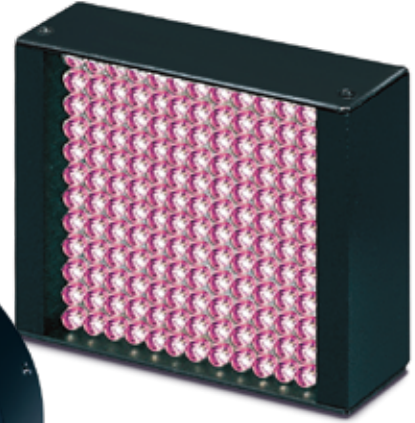
Short-Wave Infrared Illumination [Infrared Series 2]

Detection of foreign matters inside the object and visualization of moisture, enabling inspection that was previously difficult (1,050~1,650nm)

24V DC Models Available

- Applications**
- Beverage bottles/Plastic molding industry etc.
 - Inspection of foreign substance in objects / Visualization of moisture etc.

Expanded Non-Destructive Inspection Capabilities for Content Volume Inspection / Packaging Transparency



Standard Size Lineup

Such as Direct Bar Illumination (IDBA-C Series), Direct Ring Illumination (IDR Series), Flat Direct Ring Illumination (IDR-F Series) & Low-Angle Direct Ring Illumination (IDR-LA Series), Coaxial Spot Illumination (IHVE Series) and various other options to meet specific requirements.

Imaging Example

With infrared transparency, our illuminations enable recognition of objects in liquid environments. They also facilitate easy inspection by allowing the transmission of characters and patterns.

Moisture absorbs infrared light at a wavelength of 1,450nm, causing it to appear black or opaque. However, it transmits both infrared light at 850nm and visible light.



Brown bottle (Left: vegetable oil, Right: water)
Body: Borosilicate glass
Cap: Polypropylene



IHM-108/114AW (Visible Light)



IFD-200/200IR-850 (850nm)



IDBA-C50/50IR-1450S-C1 (1,450nm)

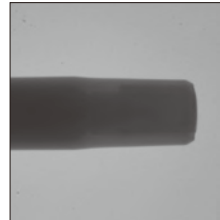
Visible light and 850nm infrared light cannot penetrate the cap and the tip of pen is not visible. 1450nm infrared light penetrates even the cap and allows inspection of the tip of the pen.



Permanent marker
Body: Recycled resin
Cap: Polypropylene



IHM-108/114AW (Visible Light)



IFD-200/200IR-850 (850nm)



IDBA-C50/50IR-1450S-C1 (1,450nm)

Visible light and 850nm infrared light can not penetrate the bottle, so the contents inside cannot be detected. 1450nm infrared light penetrates the bottle and does not penetrate the content (liquid), so it is easy to detect the presence and amount of the contents.



Handsoap
Bottle: Polyethylene



IHM-108/114AW (Visible Light)



IFD-200/200IR-850 (850nm)

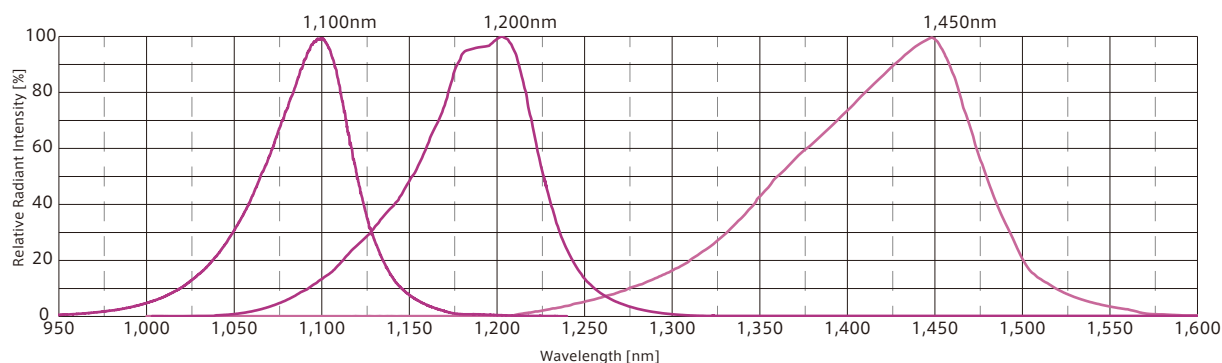


IDBA-C50/50IR-1450S-C1 (1,450nm)

- Line illumination products
- Ring illumination products
- Bar illumination products
- Transmitted/area illumination products
- Dome illumination products
- Coaxial illumination products
- Special illumination products
- Kit products
- Controller products
- Other illumination products

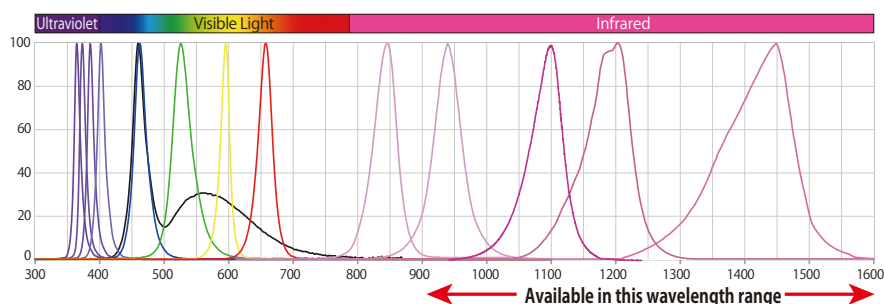
- Line illumination products
 - IDBB-LSRF
 - IDBC-LSR
 - IDBB-LSRH
 - IDBB-LSRA
 - IDBB-LSRS
 - IDBC-LSRC
 - IDBB-LSRC
 - IDBC-RE
 - IDBB-RE
 - IDBA-RK
 - IQDH-RE
 - IMAR-D_8ch
 - IDR-LA-8ch
 - IDRA-T-8ch
 - IMAR-D
 - IMAR-CT-D
 - IHR-LE
 - IHRB · IHRA
 - IDR-F
 - IDR-F33/16
 - IDR
 - IDR-LA
 - IDRA-T
 - IFR · IPR
 - IDBA-HM
- Ring illumination products
 - 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
 - IPQC
 - 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
 - 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
 - IPQC
 - 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
- Special illumination products
 - IHVA-SP · IHSL-SP
 - IBF
 - IHV-FX
 - RBOX
 - IDBB-CH
 - IDHRA
 - UV-CAN
 - Infrared
 - Infrared
 - IMAR-RGB
 - IDDA-KH-RGB
 - RGB Full-color
 - ISU
 - ISS
 - Introduction of Customization
- IR products
 - High speed synchronous imaging camera products
 - ISC-24
 - Image capture evaluation kit products
 - IDMU
 - ILP
 - ILC
 - ILV
 - ILS
- Controller products
 - IPPA_G · IRPA_G
 - IPSA · IPPA
 - IDGC
 - IDPA
 - IDCA
 - IMC
 - IWDV-24
 - IWDV(S)-48
 - ISC
 - IJS
 - IJS
 - IJS-30M2-TP/SS
 - ILS-40M2-PI/SS
 - SAG
 - SLLUB
 - LLUB
 - IFIC

Optical Spectrum (Ref.Value)



Infrared Wavelength Band Characteristics

In comparison with ultraviolet light and visible light, infrared light has a high transmittance due to its very small scattering rate so it penetrates liquid and ink. In addition, because its wavelength range is limited, unlike halogen, photosensitive objects are not affected by it. The IR-1200 series and IR-1450 series can handle objects that cannot be inspected with visible lighting by using them with an InGaAs camera that has a high sensitivity in the wavelength range of 900 to 1700nm.



Model	Color	Power Consumption(W)	Input Voltage	Applicable Controller	Drawing
IDBA-C50/15IR-1200	IR (1200)	1.5	DC12V	IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive Controllers, etc	1
IDBA-C100/15IR-1200	IR (1200)	3.4			2
IDBA-C50/50IR-1200S	IR (1200)	6.8			3
IDR-F70/37IR-1450	IR (1450)	4			4
IDBA-C50/15IR-1450	IR (1450)	1.5			1
IDBA-C100/15IR-1450	IR (1450)	3.4			2
IDBA-C50/50IR-1450S-C1	IR (1450)	6.8			3

*The other wavelengths, DC24V products and customize sizes are also available aside from the ones listed above.

Model	Color	Input current	Applicable Controller	Drawing
IHVE-21IR-1100	IR (1100)	700mA	ILC Series (P.199)	5

