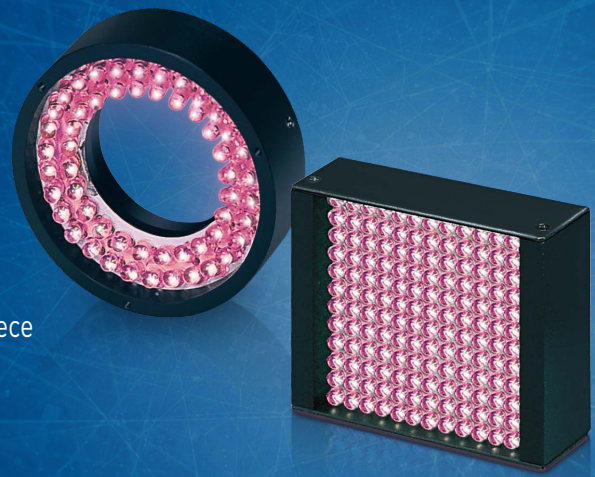


# Infrared Light [1200nm & 1450nm] Infrared series

This makes possible inspections that conventionally have been difficult, such as the detection of foreign substance in a workpiece and the visualization of water content.

24V DC Models Available

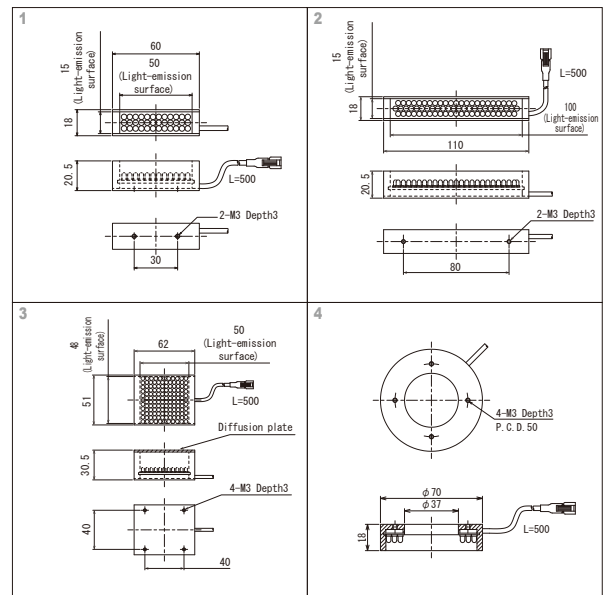
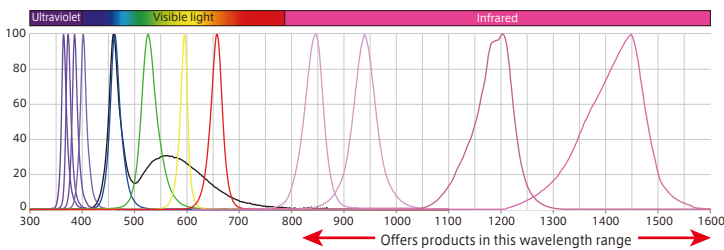


Model	Light Color	Power Consumption (W)	Input Voltage	Power Supply	Drawing
IDBA-C50/151R-1200	IR-1200	1.5	DC12V	ILP-30M2 (P.81) IDGB series (P.89) other, overdrive power supply, etc.	1
IDBA-C100/151R-1200	IR-1200	3.4			2
IDBA-C50/501R-1200S	IR-1200	6.8			3
IDR-F70/371R-1450	IR-1450	4			4
IDBA-C50/151R-1450	IR-1450	1.5			1
IDBA-C100/151R-1450	IR-1450	3.4			2
IDBA-C50/501R-1450S-C1	IR-1450	6.8			3

\*In addition to the above models, infrared models are also available in the same shapes as visible light versions.  
\*Input voltage is 12 V DC, but 24 V DC models are also available.

## Character depending on IR wavelength range

In comparison with ultraviolet light and visible light, infrared light has a high transmittance due to its very small scattering rate and penetrates liquid and ink. In addition, as its wavelength range is limited unlike halogen, light-sensitive workpieces are not affected by it. Due to use of InGaAs camera that has a high sensitivity in the wavelength range of 900 to 1700nm, the IR-1200 series / IR-1450 series can handle workpieces that cannot be inspected by means of visible light illumination.



## Effect

IR transmission enables recognition of the state and species discrimination in the liquid. In addition, IR light can transmit letters and printing, so it makes appearance inspection easy.

Water absorbs light with a 1,450nm wavelength and appears black. The 850nm and visible light penetrates it.



Dark brown bottles  
(left:vegetable oil, right:water)  
Body:borosilicate glass  
Cap:PP



IHM-108/114W  
(Visible light)



IFD-200/2001R-850  
(850nm)

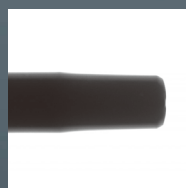


IDBA-C50/501R-1450S-C1  
(1450nm)

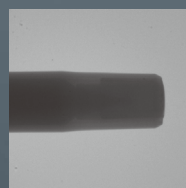
Visible light and 850nm infrared light cannot penetrate the cap and the pen tip is not visible. 1,450nm infrared light penetrates the cap as well and it is possible to inspect the pen tip.



Oily marker  
Body part:recycled resin  
Cap:PP



IHM-108/114W  
(Visible light)



IFD-200/2001R-850  
(850nm)



IDBA-C50/501R-1450S-C1  
(1450nm)

As visible light and 850nm infrared light do not penetrate the bottle, it is not possible to judge the presence of content. As 1,450nm infrared light penetrates the bottle and does not penetrate the content (liquid), it is easy to judge the presence and amount of the content.



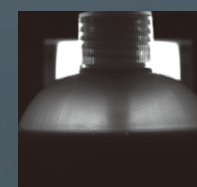
Handsoap  
Bottle:PE



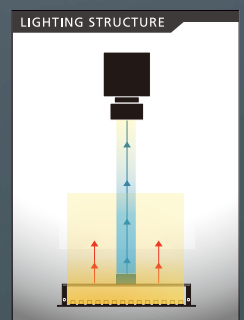
IHM-108/114W  
(Visible light)



IFD-200/2001R-850  
(850nm)



IDBA-C50/501R-1450S-C1  
(1450nm)



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