

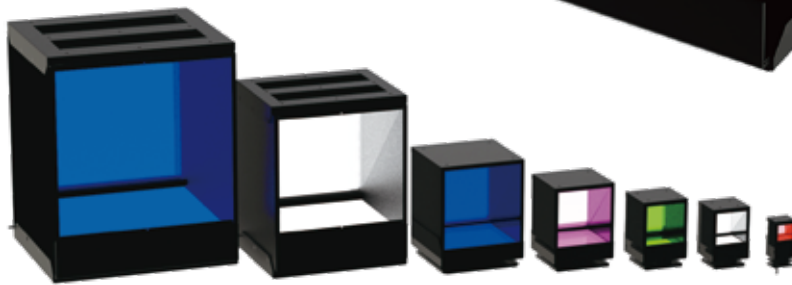
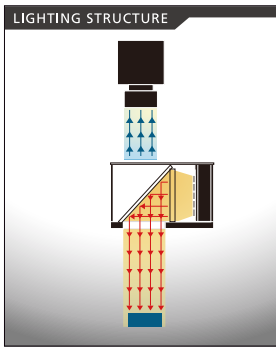
NEW

Coaxial Illumination Products [IFVA·IFVB Series]

Coaxial illumination with high-intensity, high-uniformity, and a compact body
Ideal for high-precision inspection applications

25V DC Models Available Design Registered

- Applications**
- Semiconductor/Electronic components industry etc.
 - ➔ Pattern inspection of PCBs & Marking inspection of wafers
 - Food/Pharmaceutical/Packaging industry etc.
 - ➔ Inspection of engraving on glossy surfaces/ Surface scratch etc.

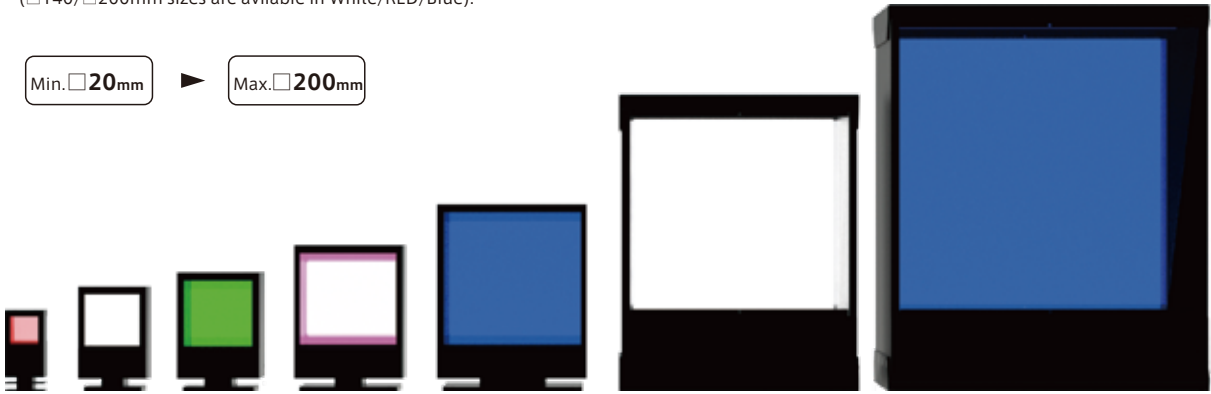


Standard Size Lineup Standard release in □20/□40/□50/□70/□100/□140/□200mm 7 sizes

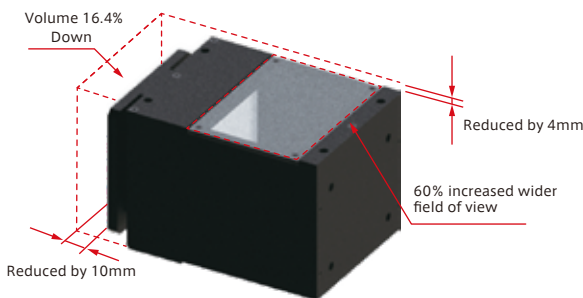
Wide Range of Sizes & Color Variations

Available in 7 Sizes/5 colors , ranging from a Min. aperture size of 20mm to a Max. aperture size of 200mm with White/RED/Blue/Green/Infrared for standard.
(□140/□200mm sizes are available in White/RED/Blue).

Min. □20mm Max. □200mm



Compact Housing with a Wide View Imaging Window.



Comparing the IFVA-50W with the previous model the following improvements have been made:

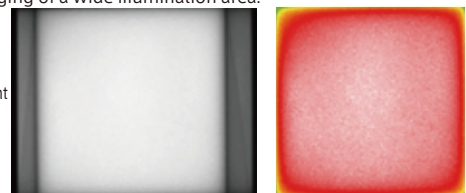
- ① 16.4% size down compact housing.
- ② 60% increased camera-side aperture for a wider field of view.
- ③ Eliminated camera-side protrusions, allowing flat installation
- ④ Utilized an all-aluminum housing and implemented a unique heat sink design for significantly improved heat dissipation

※ Please note that the housing casing can become very hot. Please handle with caution.

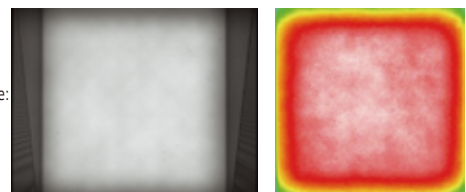
Further Improved Irradiation Uniformity

IFVA: With uniform irradiation even to the peripheral areas, it enables imaging of a wide illumination area.

Narrow-angle light distribution type: IFVA-50W



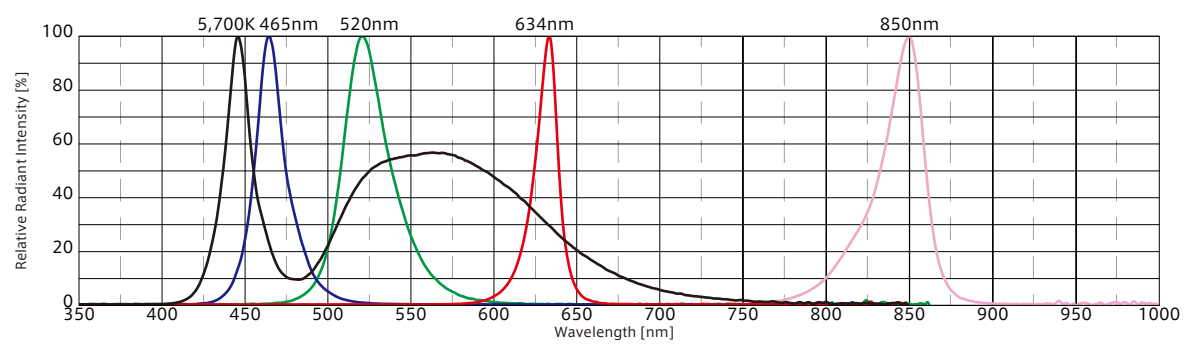
Diffuse light type: IFV-C50DW



- 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
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- IDRA-T
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- 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-IR
- IHMA-40D
- IFPA-D
- IPOC
- IFHA
- IDDB-KH · IDDA-KH
- IDUB
- IDD
- IDD-CB
- IQD · IQDH
- IQDA-CB
- IFVA · IFVB
- IFVA-ST
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- IHV-20 · IHVE-21
- IHVA-SP · IHSL-SP
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- ILS-40M2-PI/SS
- SAG
- SLUB
- LLUB
- IFIC

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 - IDBA-HMS-IR
 - IDBA-FD
 - IDBA-LEH2
 - IDBA-LEH
 - IDBA-LE
 - IDBA-SE
 - IDBA-SL
 - IDBA
 - IDBA-Q
 - IFLA · IFLB
- Bar illumination products
 - IDHM
 - IHMA
 - IHMA-V
 - IFPA
 - IFD
 - IFD-IR
 - IHMA-40D
 - IFPA-D
 - IPQC
 - IFHA
- Transmitted/area illumination products
 - IDDB-KH · IDDA-KH
 - IDUB
 - IDD
 - IDD-CB
 - IQD · IQDH
 - IQDA-CB
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 - ILS-40M2-PI/SS
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Optical Spectrum (Ref.Value)



Luminance Comparison with Overdrive

Adoption of Overdrive Controller results in steady-state ratio increase of 250% or more.



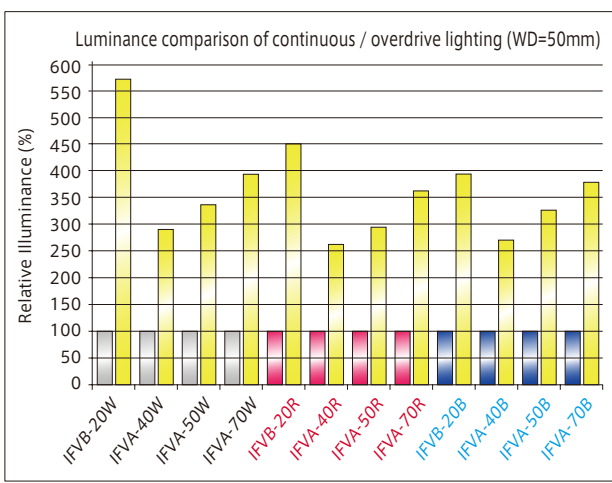
IJS series etc.
Overdrive controllers



Continuous lighting

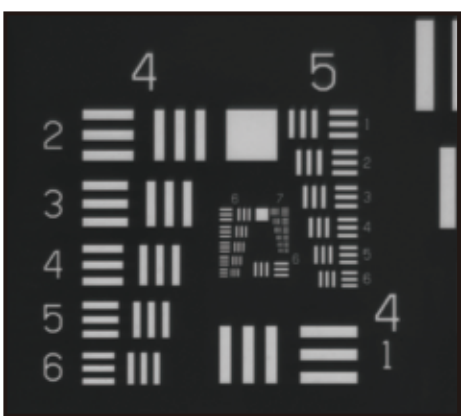


Overdrive lighting

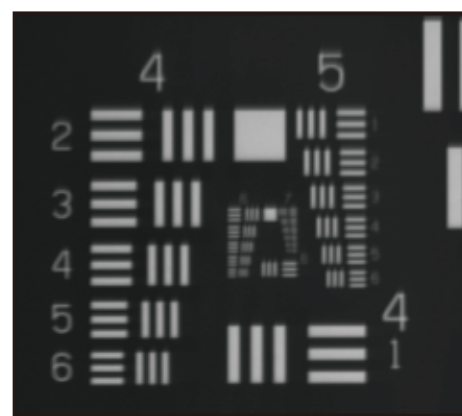


Sharpness UP

The IFVB-20 series is a pseudo-coaxial illumination with an ultra-thin half-mirror, designed to accommodate imaging with high-resolution cameras and high-magnification lenses. It suppresses ghosting and enables high-definition image capture.



High-definition imaging type:
IFVB-20W



Diffuse light type:
IFV-C50DW

Imaging Example

- Printed circuit board (PCB)



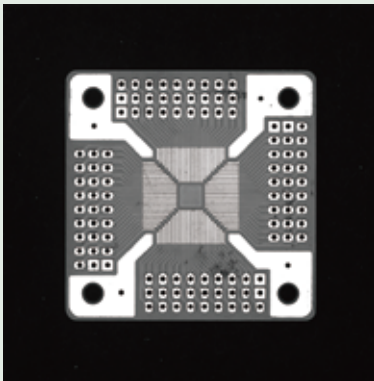
Narrow-angle light distribution type :IFVA-50W
Shutter speed 1/10,000
Output:100%



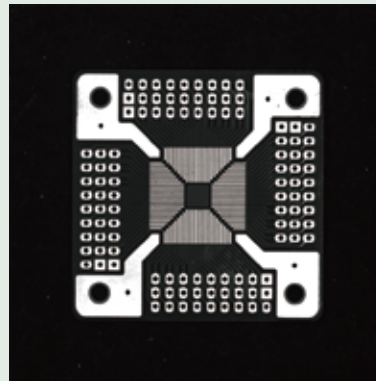
Diffuse light type:IFV-C50DW
Shutter speed 1/10,000
Output:100%

Among the pseudo-coaxial illumination, compared to the diffusing type IFV-C series, the Narrow-angle light distribution type IFVA series allows for brighter viewing.

- Printed circuit board (PCB)



IFVA-140WHV



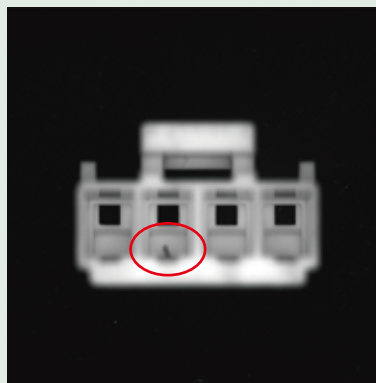
IDBA-HM200W
(installed in a "V" shape with two units)

The IFVA Series allows for highly uniform illumination over a wide range, making it possible to distinguish circuit patterns under solder resist as well.

- Connector



Without polarizing plate unattached



With polarizing plate attached

By using the IFVA series , it becomes possible to inspect narrow entrance areas such as connector insertion points and deep holes. Additionally, the use of polarizing plates/ filters can enhance the detection of defects that are difficult to identify.

- Alignment Mark



IFVA-50W

- Button-type Battery



IFVA-50W

- Line illumination products
 - IDBB-LSRF
 - IDBC-LSR
 - IDBA-LSRH
 - IDBB-LSRA
 - IDBB-LSRS
 - IDBC-LSRC
 - IDBB-LSRC
 - IDBC-RE
 - IDBB-RE
 - IDBA-RK
 - IQDH-RE
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 - IDR-LA-8ch
 - IDRA-T-8ch
 - IMAR-D
 - IMAR-CT D
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- Ring illumination products
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 - IDBA-LE
 - IDBA-SE
 - IDBA-SL
 - IDBA
 - IDBA-Q
 - IFLA · IFLB
 - IDHM
 - IHMA
 - IHMA-V
 - IFPA
 - IFD-IR
 - IHMA-40D
 - IFPA-D
 - IPQC
 - IFHA
 - IDDB-KH · IDDA-KH
 - IDUB
 - IDD
 - IDD-CB
 - IQD · IQDH
 - IQDA-CB
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 - IJS-30M2-TP/SS
 - ILS-40M2-PI/SS
- Other illumination products
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 - SLLUB
 - LLUB
 - IFIC

Model	Color	Power Consumption(W)	Input Voltage	SAG (※)	Applicable Controller	Drawing						
IFVB-20□	R	4.2	DC12V	FF	IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive Controllers, etc.	1						
	W	4.2		FF								
	B	4.2		FF								
	G	4		FF								
IFVA-20IR-850	IR(850)	2.4		FF		IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive Controllers, etc.	2					
IFVA-40□	R	10.5		AA								
	W	10.5		98								
	B	10.5		98								
	G	9		8F								
IFVA-50□	IR(850)	7		FF			IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive Controllers, etc.	3				
	R	14		B9								
	W	14		A7								
	B	14	A7									
IFVA-70□	G	12	A0	IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive Controllers, etc.	4							
	IR(850)	11	FF									
	R	24	D9									
	W	24	B9									
IFVA-100□HV	B	24	B9		IDMU-24 series (P.193) ILP-60M2-24 (P.197) IDGC-24 series (P.209) etc.	5						
	G	18	C2									
	IR(850)	17	FF									
	R	32	-									
IFVA-140□HV	W	32	DC24V			-	IDMU-24 series (P.193) ILP-60M2-24 (P.197) IDGC-24 series (P.209) etc.	6				
	B	32										
	G	27										
	IR(850)	24										
IFVA-200□HV	R	45		DC24V				-	IDMU-24 series (P.193) ILP-60M2-24 (P.197) IDGC-24 series (P.209) etc.	7		
	W	45										
	B	45										
IFVA-200□HV	R	65								DC24V	-	IDMU-24 series (P.193) ILP-60M2-24 (P.197) IDGC-24 series (P.209) etc.
	W	70										
	B	70										

★The emission color (W=White,R=Red,B=Blue,G=Green,IR-850=IR) is indicated by □ in the model table.

★DC24V products are also available. Please feel free to contact us for more information.

※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.

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. I-CB-S_-24 series and I-CB-S_R-24-C02 series are compatible for DC24V model.



Recommended Digital Controller(PWM Control)

IDMU Series

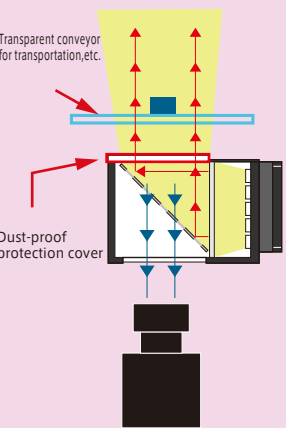
Output control: 1,000 Levels
Compact PWM controller with DC24V input voltage, ideal for installation inside panels
Expandable up to 40 channels by linking units
Equipped with programming and camera trigger output functions, making it versatile.



Protection Cover for IFVA

IKFVA-PRC series

Transparent conveyor for transportation, etc.



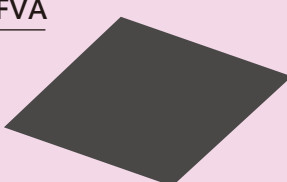
Dust-proof protection cover

It is a transparent cover designed to protect the illumination side aperture of the IFVA. It is used as a dust prevention and object protection measure when the illumination is located at the bottom during bottom surface inspection, etc.

Model	Applicable Illumination
IKFVA-20-PRC	IFVB-20□
IKFVA-40-PRC	IFVA-40□
IKFVA-50-PRC	IFVA-50□
IKFVA-70-PRC	IFVA-70□
IKFVA-100-PRC	IFVA-100□HV
IKFVA-140-PRC	IFVA-140□HV
IKFVA-200-PRC	IFVA-200□HV

Polarizing Plate for IFVA

IKFVA-PL series




Model	Applicable Illumination
IKFVA-20-PL	IFVB-20□
IKFVA-40-PL	IFVA-40□
IKFVA-50-PL	IFVA-50□
IKFVA-70-PL	IFVA-70□
IKFVA-100-PL	IFVA-100□HV
IKFVA-140-PL	IFVA-140□HV
IKFVA-200-PL	IFVA-200□HV

IKFVA-PL is a built-in type polarizing plate for the IFVA. By attaching a PL filter to the camera lens side as well, it is possible to eliminate workpiece glare and surface reflections.

Polarizing filter (with locking screw)

IMPL series



Model	Lens filter diameter
IMPL-M255	M25.5 x P0.5
IMPL-M270	M27.0 x P0.5
IMPL-M305	M30.5 x P0.5

It is a type of polarizing filter that is attached to the front end of a camera lens. Please use it in conjunction with the polarizing plate on the illumination side.

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 - IDBB-RE
 - IDBA-RK
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 - IDBA-Q
 - IFLA · IFLB
 - IDHM
 - IHMA
 - IHMA-V
 - IFPA
 - IFD
 - IFD-IR
 - IHM-40D
 - IFPA-D
 - IPQC
 - IFHA
 - IDDB-KH · IDDA-KH
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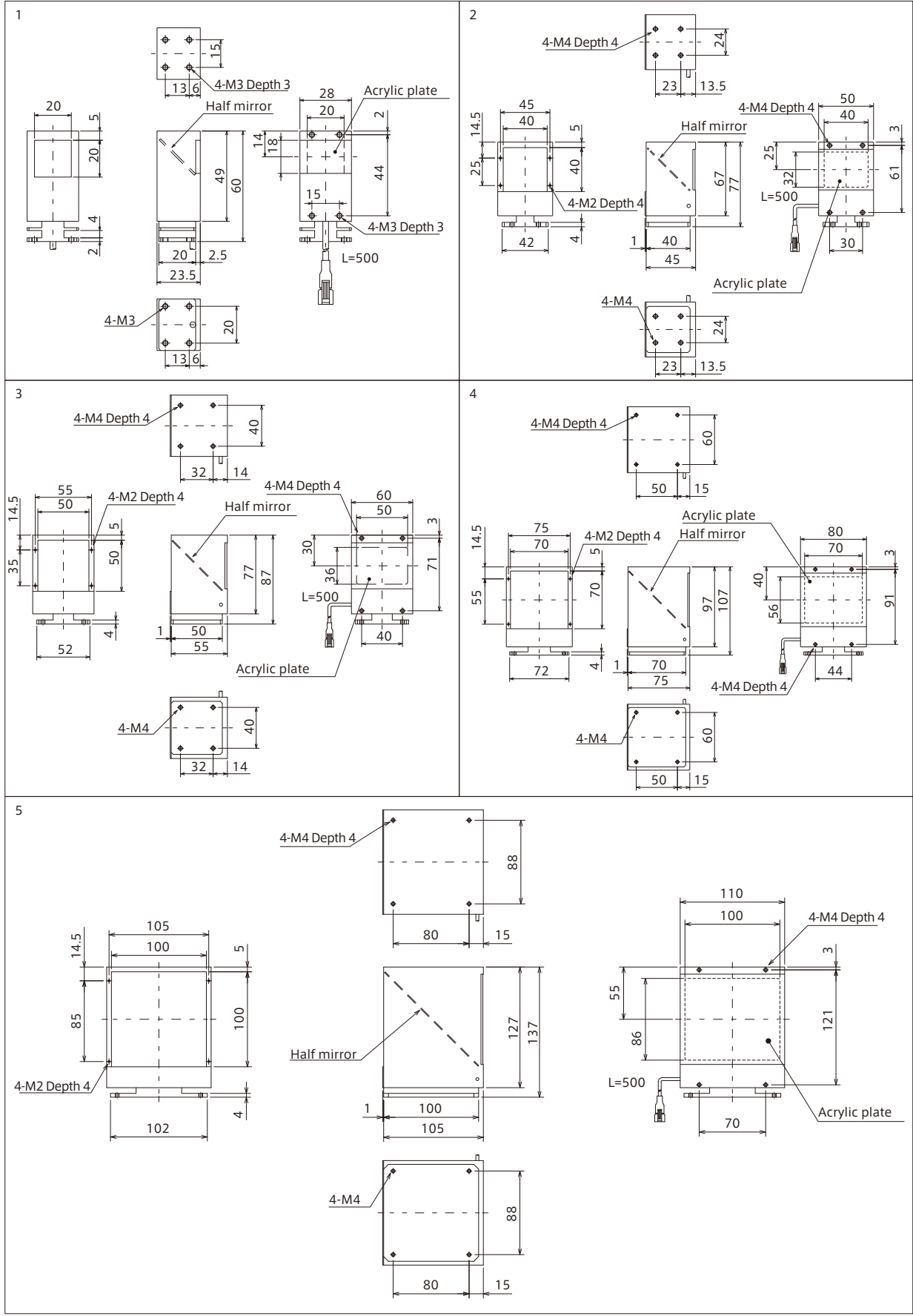
Dome illumination products

Coaxial illumination products

Special illumination products

Kit products

Controller products



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Bar illumination products

Coaxial illumination products

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- IHMA-V
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- IFD
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- ILS-40M2-PI/SS
- SAG
- SLLUB
- LLUB
- IFIC

