

■ Features

- Laser irradiation position can be observed by camera
(Please prepare a camera separately)
- | Easy alignment of tiny laser focusing points
- Any camera can be mounted because of C Mount
- Easy processing observation because of laser cut filter
- Coaxial observation irradiation unit appropriate for LD Irradiation Light Source SPOLD®

■ Applications

- Laser soldering
- Plastic welding
- Thermal processing

■ Outline

We have introduced a new line of coaxial-viewing models in the series of LD Irradiation Light Source SPOLD® irradiating units. Since the laser irradiation position can be observed with the camera, the tiny laser focusing points such as the welding portion of the catheter or the welding portion of the guide wire can be easily aligned.



■ General ratings

Parameter	Rating	Unit
Operating temperature *	+10 to +30	°C
Storage temperature *	-20 to +50	°C
Storage and operating humidity *	≤60	%
Place of use	Indoor at an altitude of ≤2000 m	—

* No condensation

Irradiation unit A15182-30-xxxA series

Specifications

● For LD irradiation light source L14140 series

Parameter		A15182-30-10SA	A15182-30-20SA	A15182-30-40SA	A15182-30-80SA	Unit
Corresponding LD Irradiation light source		LD irradiation light source L14140 series				—
Dimensions (W × H × D) *1		Approx. 76 × 134.5 × 38 (excluding mounting plates)				mm
Protective glass *2	Holder outer diameter *1	φ32				mm
	Holder thickness *1	5.5				mm
Weight		≤500				g
Fiber connector		SMA				—
CCD camera connector		C-mount				—
Optical property	Focusing magnification *3	Approx. 1 ×	Approx. 2 ×	Approx. 4 ×	Approx. 8 ×	—
	Working distance (WD) *4	44 ± 2	96.5 ± 2	98 ± 4	99 ± 8	mm
	Converging angle θ (full angle)	26	13	7	4	°
	Laser transmittance *5	≥85				%
CCD field of view	1/2 inch camera	Approx. 6.4 × 4.8	Approx. 12.8 × 9.6			mm
	1/3 inch camera	Approx. 4.8 × 3.6	Approx. 9.6 × 7.2			mm
	1/4 inch camera	Approx. 3.6 × 2.7	Approx. 7.2 × 5.4			mm

*1: For tolerances, refer to dimensional outline.

*2: Attach with M30 and P0.5 screws to the tip of lens barrel, φ25 mm and t1.0 mm protective glass built-in.

*3: Optical designing value: In case focusing lens unit is installed.

*4: Optical designing value: Distance from the tip of the protective glass holder, laser wavelength 915 nm.

*5: Irradiation unit output ratio to laser optical output at the end of the laser transmission optical fiber.

● For LD irradiation light source L13920 series

Parameter		A15182-30-10DA	A15182-30-20DA	A15182-30-40DA	A15182-30-80DA	Unit
Corresponding LD Irradiation light source		LD irradiation light source L13920 series				—
Dimensions (W × H × D) *1		Approx. 76 × 134.5 × 38 (excluding mounting plates)				mm
Protective glass *2	Holder outer diameter *1	φ32				mm
	Holder thickness *1	5.5				mm
Weight		≤500				g
Fiber connector		Equivalent to D80 connector receptacle				—
CCD camera connector		C-mount				—
Optical property	Focusing magnification *3	Approx. 1 ×	Approx. 2 ×	Approx. 4 ×	Approx. 8 ×	—
	Working distance (WD) *4	44 ± 2	96.5 ± 2	98 ± 4	99 ± 8	mm
	Converging angle θ (full angle)	24	12	6	3	°
	Laser transmittance *5	≥85				%
CCD field of view	1/2 inch camera	Approx. 6.4 × 4.8	Approx. 12.8 × 9.6			mm
	1/3 inch camera	Approx. 4.8 × 3.6	Approx. 9.6 × 7.2			mm
	1/4 inch camera	Approx. 3.6 × 2.7	Approx. 7.2 × 5.4			mm

*1: For tolerances, refer to dimensional outline.

*2: Attach with M30 and P0.5 screws to the tip of lens barrel, φ25 mm and t1.0 mm protective glass built-in.

*3: Optical designing value: In case focusing lens unit is installed.

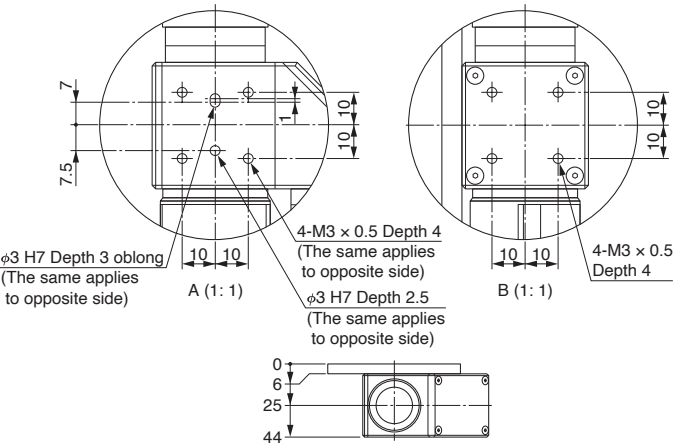
*4: Optical designing value: Distance from the tip of the protective glass holder, laser wavelength 940 nm.

*5: Irradiation unit output ratio to laser optical output at the end of the laser transmission optical fiber.

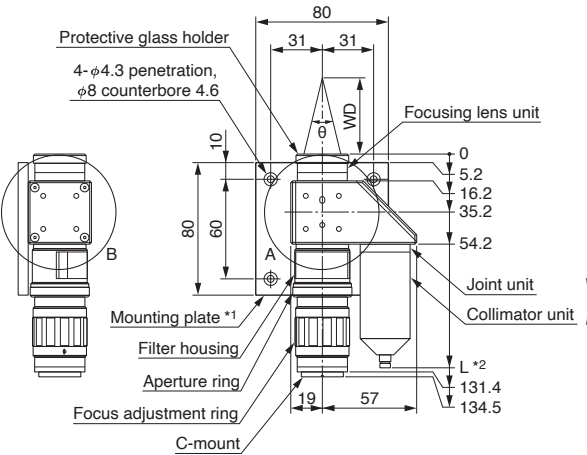
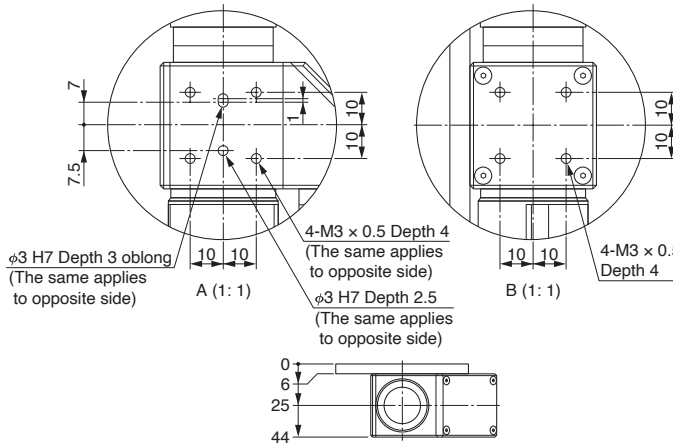
Irradiation unit A15182-30-xxxA series

Dimensional outline (Unit: mm)

A15182-30-xxSA



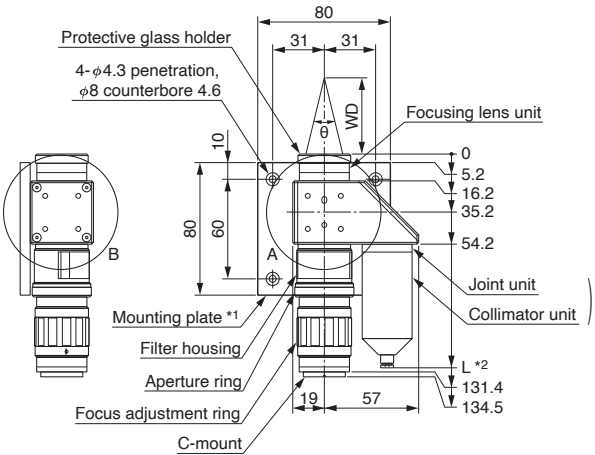
A15182-30-xxDA



* Unspecified tolerances shall be ± 0.1 mm.
*1: Fix the irradiation unit using the mounting hole or mounting plate of Part A.
The mounting plate can also be mounted on the opposite side.
*2: Refer to the following specification for L.

Type No.	Focusing magnification	L (mm)
A15182-30-10SA	1 x	129.0
A15182-30-20SA	2 x	129.0
A15182-30-40SA	4 x	110.0
A15182-30-80SA	8 x	96.0

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* Unspecified tolerances shall be ± 0.1 mm.
*1: Fix the irradiation unit using the mounting hole or mounting plate of Part A.
The mounting plate can also be mounted on the opposite side.
*2: Refer to the following specification for L.

Type No.	Focusing magnification	L (mm)
A15182-30-10DA	1 x	129.1
A15182-30-20DA	2 x	129.1
A15182-30-40DA	4 x	110.1
A15182-30-80DA	8 x	96.1

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