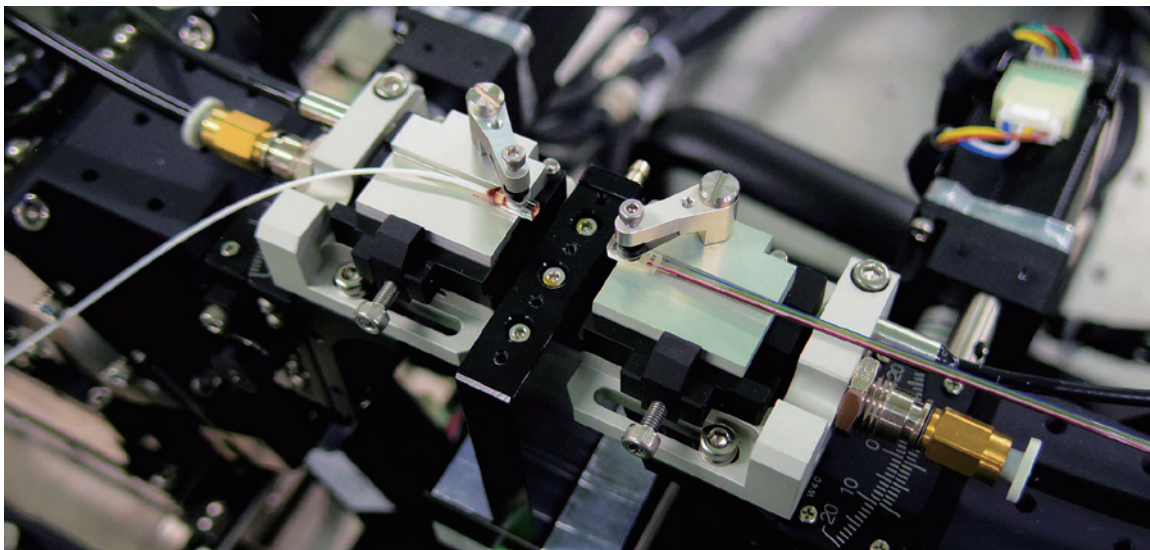


EW Selection Guide

Ver.1

The EW Series automatic alignment systems from Suruga Seiki provide flexible configuration to meet your specific needs. Use this guide to find the best-fit setup for your application.



Freeing up development resources from manual alignment!

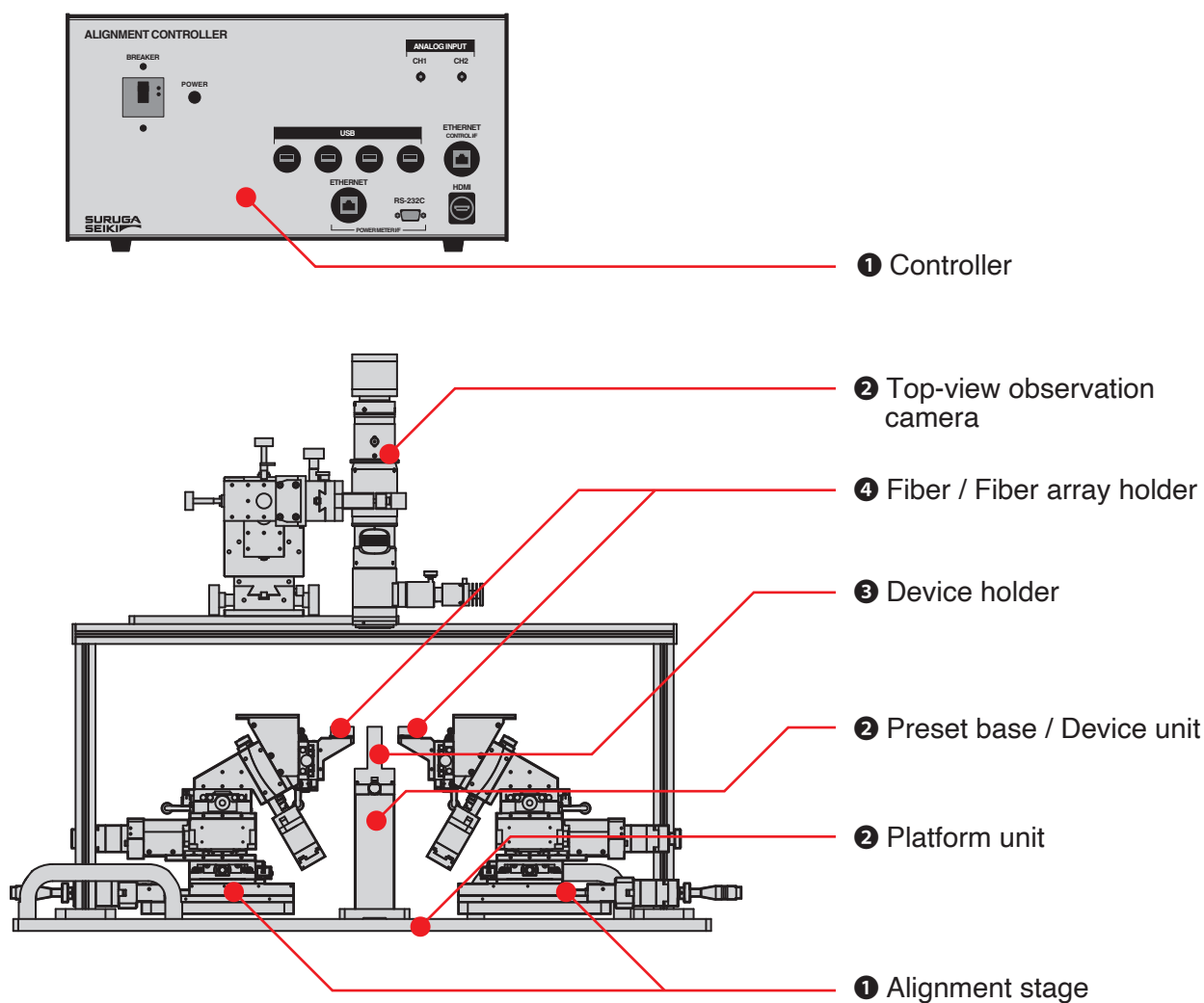
A new concept specifically designed for use in R&D departments

**SURUGA
SEIKI**

Overall Configuration of the EW Series

This selection guide allows users to choose the appropriate EW Series configuration based on their desired alignment method.

The most basic configuration is illustrated below.



※ 1~4 indicate the selection steps shown on the next page.

Selection Process Overview

Confirm your alignment method and complete five simple steps to select the optimal EW configuration.

Pre-Check

Confirm Alignment Style

Select the alignment style required for your application.

Step 1

Select the EW Base Unit

① Choose the Alignment Stage

Select the required number of axes based on your alignment style.

② Select an Alignment Stage with Contact Sensor

The contact sensor protects high-value devices during fiber array alignment.

* Available for 6-axis stages only.

Step 2

Complete the Basic Platform

① Select a Platform Unit

Choose a platform unit if required. If not selected, a preset base/device unit must be chosen.

② Add a Rear Observation Camera

A rear observation camera can be added to monitor height position.

③ Add an End-Face Observation Camera

An end-face observation camera can be added to monitor emitted light.

Step 3

Select a Device Holder (Waveguide / LD Fixture)

Choose a holder based on device size and shape. Vacuum-compatible device holders are also available.

Step 4

Select Fiber Array / Fiber Holder

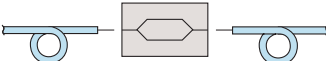
Choose a fiber array or fiber holder according to its shape and orientation.

Step 5

Select Optional Peripheral Equipment

While many optional accessories are available, this guide focuses on pneumatic control for contact sensors and grating-related peripherals.

Identify the desired alignment style within the red box and note the corresponding “Alignment Style Number.” Then proceed to the matching number in the table on the next page.

	Alignment Style	Alignment Style Number	Select Product
Waveguide Alignment	Fiber Array Alignment  Fiber Array ⁶ Waveguide Fiber Array ⁶	1	Two 6-Axis Alignment Stages 12-Axis Controller for 6-Axis Stages Platform unit for 6-Axis Alignment Stages
	Loopback Alignment  Fiber Array ⁶ Waveguide	2	One 6-Axis Alignment Stage 6-Axis Controller for 6-Axis Stage Platform unit for 6-Axis Alignment Stage
	Optical Fiber Alignment  Optical Fiber ³ Waveguide Optical Fiber ³	3	Two 3-Axis Alignment Stages 6-Axis Controller for 3-Axis Stages Platform unit for 3-Axis Alignment Stages
LD Rotational Alignment	 Chip-Type LD Lensed Fiber ³	4	One 3-Axis Alignment Stage 6-Axis Controller for 3-Axis Stage Platform unit for 3-Axis Alignment Stage

Note

3-axis stages are used for optical fiber alignment, while 6-axis stages are required for fiber array alignment.

EW base unit controllers are available for both configurations: a 6-axis driver controller for 3-axis stages, and either 6- or 12-axis driver controllers for 6-axis stages.

Breadboard units are also available for both stage types.

Step 1

Select the EW Base Unit

① Choose the Alignment Stage

Based on the Alignment Style Number, select your desired alignment direction from the alignment stages (red box). Check the Step 1 selection code and proceed to the next page.

Alignment Style Number	Alignment Stage (Fiber Orientation)	Reference Code	Select Product	Number of Control Axis	Controller
1	EW10-STL10 EW10-STR10 6-axis *2 unit	AB	EW50-XX	12 Axis	DA1000-H6N6 12-axis driver for 6-axis stages 
2 (※ 1)	Configurable for face-to-face alignment EW10-STL10 6-axis *1 unit	AL	EW50-L6-XX		
	EW10-STR10 6-axis *1 unit	AR	EW50-R6-XX		
	Loopback alignment only EW10-STL10 6-axis *1 unit	BL	EW30-L6-XX		
	EW10-STR10 6-axis *1 unit	BR	EW30-R6-XX	6 Axis	DA1000-H3N3 6-axis driver for 6-axis stage 
3	EW10-STL05 EW10-STR05 3-axis *2 unit	CB	EW30-XX		
4	EW10-STL05 3-axis *1 unit	CL	EW30-L3-XX		
	EW10-STR05 3-axis *1 unit	CR	EW30-R3-XX		

(※ 1)

If Alignment Style Number 2 is selected and only one axis is used for loopback alignment, choose BL or BR (EW30). If face-to-face alignment may be required, choose AB, AL, or AR (EW50). The controller is automatically selected according to the stage specifications.

Note

In the product number, “XX” indicates the regional model designation.

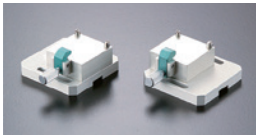
Step 1

Select the EW Base Unit

② Select an Alignment Stage with Contact Sensor

If AB, AL, AR, BL, or BR is selected, an optional alignment stage with a contact sensor can be chosen to protect high-value devices.

In this case, the controller will be changed to a dedicated model equipped with digital I/O.

	Step 1 Reference Code	Step 1 Select Code	Select Product	Combination Unit		
				Controller	Stage	Contact Sensor
Contact Sensor Selected	AB	AB-1 ☐	EW51-XX	DA1100-H6N6 12-axis driver for 6-axis stages & Digital I/O 	EW10-STL10 EW10-STR10 6-axis *2 unit	EW10CHL10 
	AL	AL-1 ☐	EW51-L6-XX		EW10-STL10 6-axis *1 unit	EW10CHL10 
	AR	AR-1 ☐	EW51-R6-XX		EW10-STR10 6-axis *1 unit	 EW10CHR10
	BL	BL-1 ☐	EW31-L6-XX	DA1100-H3N3 6-axis driver for 6-axis stage & Digital I/O 	EW10-STL10 6-axis *1 unit	EW10CHL10 
	BR	BR-1 ☐	EW31-R6-XX		EW10-STR10 6-axis *1 unit	 EW10CHR10
Contact Sensor Not Selected	AB	AB-2 ☐	E300-L/ E300-R			
	CB	CB-2 ☐				
	AL	AL-2 ☐	E300-L			
	BL	BL-2 ☐				
	CL	CL-2 ☐				
	AR	AR-2 ☐	E300-R			
	BR	BR-2 ☐				
	CR	CR-2 ☐				

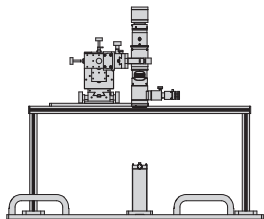
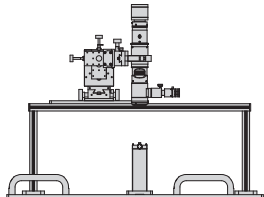
Note

If a contact sensor–equipped alignment stage is not selected, a preset base for securing the fiber holder will be automatically included.
(The preset base is included when the contact sensor option is selected.)

Step 2

Complete the Basic Platform

1 Select a Platform Unit

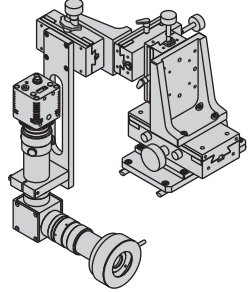
	Step 1 Select Code	Step 2 Select Code ①	Select Product	Image
Platform unit selected	AB-1 AL-1 AR-1 BL-1 BR-1 AB-2 AL-2 AR-2 BL-2 BR-2	/11 ☐	E800-206	 
	CB-2 CL-2 CR-2	/12 ☐	E800-160	
	AB-1 AL-1 AR-1 BL-1 BR-1 AB-2 AL-2 AR-2 BL-2 BR-2	/21 ☐	E1000-115 E410-B	
	CB-2 CL-2 CR-2	/22 ☐	E1000-69 E410-B	
Platform unit not selected	AB-1 AL-1 AR-1 BL-1 BR-1 AB-2 AL-2 AR-2 BL-2 BR-2	/21 ☐	E1000-115 E410-B	  If a breadboard unit is not selected, a device unit or preset base must be selected.
	CB-2 CL-2 CR-2	/22 ☐	E1000-69 E410-B	

Step 2

Complete the Basic Platform

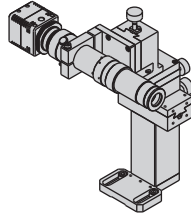
② Add a Rear Observation Camera

A rear observation camera can be added to monitor height position.

	Step 2 Select Code ②	Select Product	Image
Add	21 ☐	EVR60	
Not required	22 ☐		

③ Add an End-Face Observation Camera

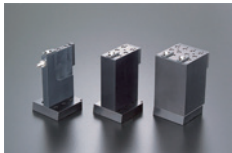
An end-face observation camera can be added to monitor emitted light.

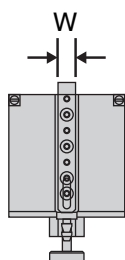
	Step 2 Select Code ③	Select Product	Image
Add	31 ☐	EW60-VS01	
Not required	32 ☐		

Step 3

Select a Device Holder

Select a device holder from the red box according to the size and shape of your device (waveguide / LD).

Holder type	W (mm)	Step 3 Select Code	Absorption area	Select Product	Note
Vacuuming + Mechanical clamp 	6	/060 	6×38mm	E400-6	If a vacuum-compatible device holder is selected, a vacuum pump must be purchased separately.  NITTO KOHKI - EV10A
	8	/080 	8×38mm	E400-8	
	10	/100 	10×38mm	E400-10	
	20	/200 	20×38mm	E400-20	
	30	/300 	30×38mm	E400-30	
	40	/400 	40×38mm	E400-40	
Mechanical clamp 	8	/08N 	8×38mm	E400-8N	
	10	/10N 	10×38mm	E400-10N	
	20	/20N 	20×38mm	E400-20N	



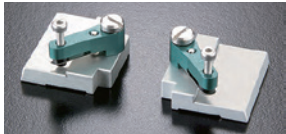
Note

Device must be larger than W.

Step 4

Select Fiber Array / Fiber Holder

Select a fiber array or fiber holder from the red box according to your specific requirements.

Preset type Fiber array holder			
Step 1 Select Code	AB-1 AB-2	AL-1 BL-1 AL-2 BL-2	AR-1 BR-1 AR-2 BR-2
Image			
Fiber array size			
t : 1-1.5mm W : 3-5mm L : 3mm	E340L-1-A/E340R-1-A /B41A ☐	E340L-1-A /L41A ☐	E340R-1-A /R41A ☐
t : 1-1.5mm W : 5-8mm L : 3mm	E340L-1-B/E340R-1-B /B41B ☐	E340L-1-B /L41B ☐	E340R-1-B /R41B ☐
t : 1-1.5mm W : 8-12mm L : 3mm	E340L-1-C/E340R-1-C /B41C ☐	E340L-1-C /L41C ☐	E340R-1-C /R41C ☐
t : 2-2.5mm W : 3-5mm L : 3mm	E340L-2-A/E340R-2-A /B42A ☐	E340L-2-A /L42A ☐	E340R-2-A /R42A ☐
t : 2-2.5mm W : 5-8mm L : 3mm	E340L-2-B/E340R-2-B /B42B ☐	E340L-2-B /L42B ☐	E340R-2-B /R42B ☐
t : 2-2.5mm W : 8-12mm L : 3mm	E340L-2-C/E340R-2-C /B42C ☐	E340L-2-C /L42C ☐	E340R-2-C /R42C ☐
t : 3-3.5mm W : 3-5mm L : 3mm	E340L-3-A/E340R-3-A /B43A ☐	E340L-3-A /L43A ☐	E340R-3-A /R43A ☐
t : 3-3.5mm W : 5-8mm L : 3mm	E340L-3-B/E340R-3-B /B43B ☐	E340L-3-B /L43B ☐	E340R-3-B /R43B ☐
t : 3-3.5mm W : 8-12mm L : 3mm	E340L-3-C/E340R-3-C /B43C ☐	E340L-3-C /L43C ☐	E340R-3-C /R43C ☐
Custom Size	Please scan the 2D code to contact us on the last page.		/0002 ☐

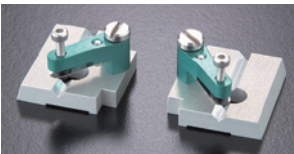
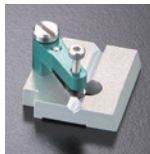
Step 4

Select Fiber Array / Fiber Holder

Preset type Fiber holder

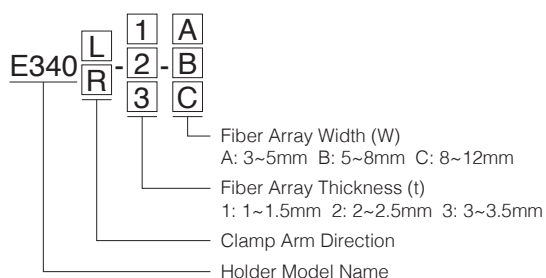
Step 1 Select Code	CB-2	CL-2	CR-2
Image			
Fiber spec			
Calad diameter=125μm Jaket diameter=250μm	E310-1L/E310-1R /101B ☐	E310-1L /101L ☐	E310-1R /101R ☐
Calad diameter=125μm Jaket diameter=900μm	E310-2L/E310-2R /102B ☐	E310-2L /102L ☐	E310-2R /102R ☐
Custom Size	Please scan the 2D code to contact us on the last page. /1002 ☐		

Preset type V-groove holder

Image			
Fiber spec d=diameter Specify the diameter within the following range when you order.			
Φ1 to 5mm (every0.1mm)	E330-d-L/E330-d-R /30dB ☐	E330-d-L /30dL ☐	E330-d-R /30dR ☐
Custom Size	Please scan the 2D code to contact us on the last page. /3002 ☐		

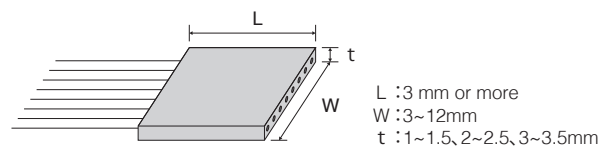
Note

Preset type Fiber Array holder Product Number



Fiber Array Size

Refer to the diagram below for fiber array dimensions.



*For detailed specifications, please contact us.

Step 5

Select Optional Peripheral Equipment

You can select from a wide range of optional accessories listed below.

① Pneumatic Control System for Contact Sensor

	Step 1 Select Code	Step 5 Select Code ①	Select Product	Image
Add	AB-1 AL-1 AR-1 BL-1 BR-1	/1 ☐	EW10-RG10	 • Regulator 1 pc. • Solenoid valve 1 pc. • Ari tube 1 set • Wiring parts 1 set
Not required	AB-1 AL-1 AR-1 BL-1 BR-1	/2 ☐		
Not Selectable	AB-2 AL-2 AR-2 BL-2 BR-2 CB-2 CL-2 CR-2			

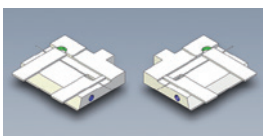
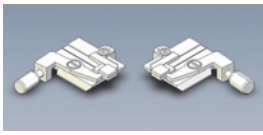
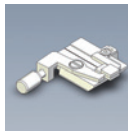
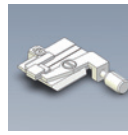
② Adapter for Grating Coupler

	Step 1 Select Code	Step 5 Select Code ②	Select Product	Image
Add	AB-1 AB-2	-1 ☐	E360-L / E360-R	
	AL-1 AL-2 BL-1 BL-2	-2 ☐	E360-L	
	AR-1 AR-2 BR-1 BR-2	-3 ☐	E360-R	
	CB-2	-4 ☐	E350-L / E350-R	
	CL-2	-5 ☐	E350-L	
	CR-2	-6 ☐	E350-R	
Not required		-0 ☐		

Step 5

Select Optional Peripheral Equipment

③ Fiber Array / Fiber Holder for Grating Coupler Adapter

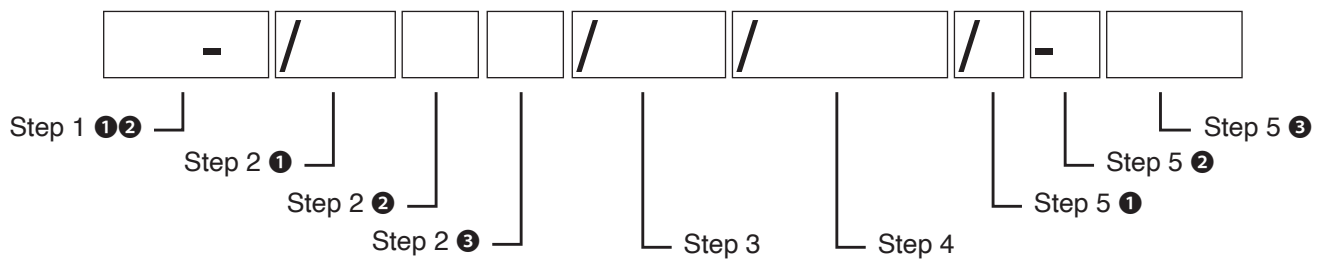
Fiber Array Holder			
Step 1 Select Code	AB-1 AB-2	AL-1 BL-1 AL-2 BL-2	AR-1 BR-1 AR-2 BR-2
Image			
Fiber array spec			
Fiber array thickness : 1-2.5mm (recommended) width : 2-5mm length : 4-25mm Rotation center height : 1mm from mounting surface	E380-1L / E380-1R AB1 ☐	E380-1L AL1 ☐	E380-1R AR1 ☐
Fiber array thickness : 2.5-3.5mm (recommended) width : 2-5mm length : 4-25mm Rotation center height : 1.5mm from mounting surface	E380-2L / E380-2R AB2 ☐	E380-2L AL2 ☐	E380-2R AR2 ☐
Custom Size	Please scan the 2D code to contact us on the last page.		A00 ☐
Fiber Holder			
Step 1 Select Code 2	CB-2	CL-2	CR-2
Image			
Fiber spec			
Clad diameter : 125μm Jacket diameter : 250μm Strip length : 7~10mm	E370-1L / E370-1R BB1 ☐	E370-1L BL1 ☐	E370-1R BR1 ☐
Clad diameter : 125μm Jacket diameter : 400μm Strip length : 7~10mm	E370-2L / E370-2R BB2 ☐	E370-2L BL2 ☐	E370-2R BR2 ☐
Clad diameter : 125μm Jacket diameter : 900μm Strip length : 7~10mm	E370-3L / E370-3R BB3 ☐	E370-3L BL3 ☐	E370-3R BR3 ☐
Custom Size	Please scan the 2D code to contact us on the last page.		B00 ☐

Grating Coupler Adapter Not Required 000 ☐

EW Series Automatic Alignment System – Selection Results

Enter the Select Code to generate the corresponding EW Series configuration.
Product specifications are available on our website.

AB-1/112232/200/B41A/1-1AB1



Step 1 Select the EW Base Unit

1 2 Choose the Alignment Stage

Select Code	EW Base Unit Select Product	Controller Select Product	Stage Select Product	Contact Sensor Select Product	Preset Base Select Product
AB-1	EW51-XX	DA1100-H6N6	EW10-STL10 EW10-STR10	EW10CHL10 EW10CHR10	-
AL-1	EW51-L6-XX	DA1100-H6N6	EW10-STL10	EW10CHL10	-
AR-1	EW51-R6-XX	DA1100-H6N6	EW10-STR10	EW10CHR10	-
BL-1	EW31-L6-XX	DA1100-H3N3	EW10-STL10	EW10CHL10	-
BR-1	EW31-R6-XX	DA1100-H3N3	EW10-STR10	EW10CHR10	-
AB-2	EW50-XX	DA1000-H6N6	EW10-STL10 EW10-STR10	-	E300-L E300-R
CB-2	EW30-XX	DA1000-H6	EW10-STL05 EW10-STR05	-	E300-L E300-R
AL-2	EW50-L6-XX	DA1000-H6N6	EW10-STL10	-	E300-L
BL-2	EW30-L6-XX	DA1000-H3N3	EW10-STL10	-	E300-L
CL-2	EW30-L3-XX	DA1000-H6	EW10-STL05	-	E300-L
AR-2	EW50-R6-XX	DA1000-H6N6	EW10-STR10	-	E300-R
BR-2	EW30-R6-XX	DA1000-H3N3	EW10-STR10	-	E300-R
CR-2	EW30-R3-XX	DA1000-H6	EW10-STR05	-	E300-R

Step 2 Complete the Basic Platform

1 Select a Platform Unit

Select Code	Platform Unit Select Product	Device Unit / Preset Base Select Product
/11	E800-206	-
/12	E800-160	-
/21	-	E1000-115 + E410-B
/22	-	E1000-69 + E410-B

2 Add a Rear Observation Camera

Select Code	Select Product
/21	EVR60
/22	-

3 Add an End-Face Observation Camera

Select Code	Select Product
/31	EW60-VS01
/32	-

EW Series Automatic Alignment System – Selection Results

Step 3 Select a Device Holder

Select Code	Select Product	Select Code	Select Product	Select Code	Select Product
/060	E400-6	/200	E400-20	/08N	E400-8N
/080	E400-8	/300	E400-30	/10N	E400-10N
/100	E400-10	/400	E400-40	/20N	E400-20N

Step 4 Select Fiber Array / Fiber Holder

Select Code	Fiber Array Holder Select Product	Select Code	Fiber Array Holder Select Product	Select Code	Fiber Array Holder Select Product
/B41A	E340L-1-A / E340R-1-A	/L41A	E340L-1-A	/R41A	E340R-1-A
/B41B	E340L-1-B / E340R-1-B	/L41B	E340L-1-B	/R41B	E340R-1-B
/B41C	E340L-1-C / E340R-1-C	/L41C	E340L-1-C	/R41C	E340R-1-C
/B42A	E340L-2-A / E340R-2-A	/L42A	E340L-2-A	/R42A	E340R-2-A
/B42B	E340L-2-B / E340R-2-B	/L42B	E340L-2-B	/R42B	E340R-2-B
/B42C	E340L-2-C / E340R-2-C	/L42C	E340L-2-C	/R42C	E340R-2-C
/B43A	E340L-3-A / E340R-3-A	/L43A	E340L-3-A	/R43A	E340R-3-A
/B43B	E340L-3-B / E340R-3-B	/L43B	E340L-3-B	/R43B	E340R-3-B
/B43C	E340L-3-C / E340R-3-C	/L43C	E340L-3-C	/R43C	E340R-3-C
Select Code	Fiber Holder Select Product	Select Code	V-groove Holder Select Product		
/101B	E310-1L/E310-1R	/30dB	E330-d-L/E330-d-R		
/101L	E310-1L	/30dL	E330-d-L		
/101R	E310-1R	/30dR	E330-d-R		
/102B	E310-2L/E310-2R				
/102L	E310-2L				
/102R	E310-2R				

Step 5 Select Optional Peripheral Equipment

① Add Pneumatic Control System

Select Code	Select Product
/1	EW10-RG10
/2	-

② Adapter for Grating Coupler

Select Code	Select Product
-1	E360-L / E360-R
-2	E360-L
-3	E360-R
-4	E350-L / E350-R
-5	E350-L
-6	E350-R
-0	-

③ Fiber Array / Fiber Holder for Grating Coupler Adapter

Select Code	Fiber Array Holder Select Product	Select Code	Fiber Holder Select Product
AB1	E380-1L / E380-1R	BB1	E370-1L / E370-1R
AL1	E380-1L	BL1	E370-1L
AR1	E380-1R	BR1	E370-1R
AB2	E380-2L / E380-2R	BB2	E370-2L / E370-2R
AL2	E380-2L	BL2	E370-2L
AR2	E380-2R	BR2	E370-2R
		BB3	E370-3L / E370-3R
		BL3	E370-3L
		BR3	E370-3R

Contact Us



To request a quotation based on your selection,
please access the inquiry page via the 2D code.

<https://eng.surugaseiki.com/contact/>

- Before purchasing equipment, we will submit equipment specifications. Please issue an order after confirming the contents of the specifications.
- Actual detailed specifications will be discussed after inquiry. Therefore, actual specifications may vary from the above.
- The warranty period is 12 months after the delivery and acceptance of the equipment.
- For other details, please check the terms of use. https://jpn.surugaseiki.com/dcms_media/other/terms-of-service_20220401.pdf
- AQ26-0008-001E *This catalog is the latest version as of February 2026. (valid until February 2029)

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**SURUGA SEIKI
CO., LTD**

Head Quarter 〒424-8566 505, Nanatsushinya, Shizuoka Shimizu-ku, Shizuoka

General Inquiries

info@suruga-g.co.jp

Contact

North America : kotani@misumiusa.com
Other : yotaro.ike@misumi.co.jp

Demo Location

North America
 • WeWork : 333 West San Carlos Street, Suite 600, San Jose, CA 95110
 • Spectra Services, Inc. : 6369 Dean Parkway, Ontario, NY 14519
 Europe
 • VLC Photonics : Camino de Vera s/n, Building 9B, Office 0.74 - UPV
 Japan
 • Suruga Seiki CO., LTD. : 505, Nanatsushinya, Shizuoka Shimizu-ku, Shizuoka