

Automatic Rotating Fiber Holder

FHRA/FHRAW



The rotary fiber holder is used to rotate and adjust the polarization plane of polarization-maintaining fiber. This fiber holder is attached to the holder mounting part of the alignment unit and requires the FHRA-BP (sold separately).

In addition, the fiber retention part is removable with magnets for smooth fiber attachment and removal.



- A magnetizing bolt is built into the plastic holder, and the magnetic force of the fiber holder's magnet gently clamps the polarization-maintaining fiber.
- The fiber retention part can be removed by a magnet.
- By using the auto-rotating fiber holder fixing plate (FHRA-BP), this fiber holder can be incorporated into the DAU-8100A series alignment unit.

Guide

- ▶ We have two types of fiber holders: the FHRAW series with a suction function at the tip and the FHRA series without a suction function.
- We also have three jacket diameters of 250 μm , 400 μm , and 900 μm . All cladding diameters are specified at 125 μm .
- ▶ The FHRAW series comes with a vacuum suction tube (2 m).
- ▶ Rotating fiber holders (FHRM series) are also available.



Attention

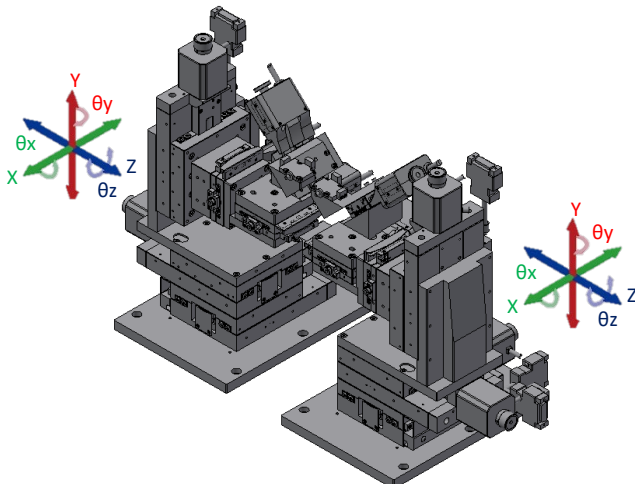
- ▶ When removing the fiber retention unit, please do so at the 0 degree position.
- In addition, a vacuum pump is required to use the suction mechanism. Please contact our sales department for information on vacuum pump peripheral equipment.

Motorized 12-axis Optical Fiber Alignment Stage Unit (DAU-8100A)-0

Catalog Code

W2092

Composition : DAU-8100A-L+DAU-8100A-R



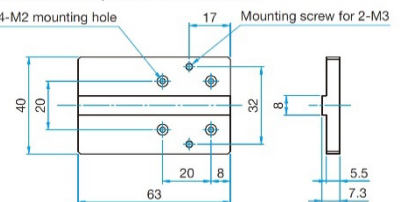
Automatic Rotating Fiber Holder Fixing Plate:



FHRA-BP

Hexagonal socket head cap screw M2×6...4 screws

Counterbore for 4-M2 mounting hole



Specifications

Primary material: Aluminum
Finish: Black Anodized

Part Number

FHRA-BP

FHRA/FHRAW-E2410

■ **Automatic rotating fiber holder (without suction function, magnetic clamp) : FHRA**

Specifications				
Part Number	FHRA-125/250L	FHRA-125/400L	FHRA-125/900L	
(Opposite Model)	FHRA-125/250R	FHRA-125/400R	FHRA-125/900R	
Mechanical Specifications	Travel [°]	280 (with CW/CCW limits)		
	Fiber optic jacket diameter [μm]	250	400	900
	Fiber optic cladding diameter [μm]	125		
	Traverse mechanism	Spur gear (1 : 3)		
	Fixed type	Magnetic clamp		
	Travel guide	Lapping		
	Material	Aluminum		
	Finish	Black anodized		
Accuracy Specifications	Weight [kg]	0.4		
	MAX Speed [°/sec]	10		
	Minimum resolution (Full) [°/pulse]	0.24		
Sensor	Minimum resolution (Half) [°/pulse]	0.12		
	Limit Sensor	Touch sensor (NORMAL OPEN)		
	Origin Sensor	None		

■ **Automatic rotating fiber holder (with suction function, vacuum suction + magnetic clamp) : FHRAW**

Specifications				
Part Number	FHRAW-125/250L	FHRAW-125/400L	FHRAW-125/900L	
(Opposite Model)	FHRAW-125/250R	FHRAW-125/400R	FHRAW-125/900R	
Mechanical Specifications	Travel [°]	280 (with CW/CCW limits)		
	Fiber optic jacket diameter [μm]	250	400	900
	Fiber optic cladding diameter [μm]	125		
	Traverse mechanism	Spur gear (1 : 3)		
	Fixed type	Vacuum suction + magnetic clamp		
	Travel guide	Lapping		
	Material	Aluminum		
	Finish	Black anodized		
	Weight [kg]	0.4		
Accuracy Specifications	MAX Speed[°/sec]	10		
	Minimum resolution (Full) [°/pulse]	0.24		
	Minimum resolution (Half) [°/pulse]	0.12		
Sensor	Limit Sensor	Touch sensor (NORMAL OPEN)		
	Origin Sensor	None		

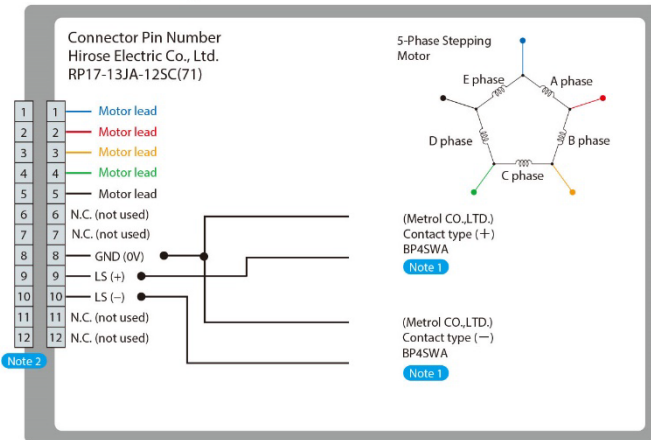
Common Specifications

Automatic Rotating Fiber Holder : FHRA/FHRAW

Motor / Sensor /Air fitting Specifications		
Motor	Type	5-phase stepping motor 0.75A/phase
	Motor Part Number	PK523HPB-C12 (Oriental Motor Co., Ltd.)
	Motor Step Angle	0.72°
Sensor	Part Number	BP4SWA (Metrol Co., Ltd.)
	Supply voltage	DC5~24V±10%
	Current consumption	40mA or less(20mA or less per sensor)
	Control output	Contact type
	Output logic	NORMAL OPEN
Air fitting	Fitting part number	LC-0425-M3(Nihon Pisco Co., Ltd.) Applicable tube inner diameter: φ2.5 *No adsorption function, not available for magnetic clamp type FHRA series

Compatible Driver / Controller		
Control System	Compatible Driver	SG-5M, SG-5MA, MC-S0514ZU, SG-514MSC, MC-S7514PCL
	Compatible Controller	GSC-01, GSC-02A, SHOT-302GS, SHOT-304GS, SHOT-702H, HIT-MV/HIT-SA, PGC-04-U, HSC-103, SHRC-203

■ Connection Diagram



■ Recommended Peripherals

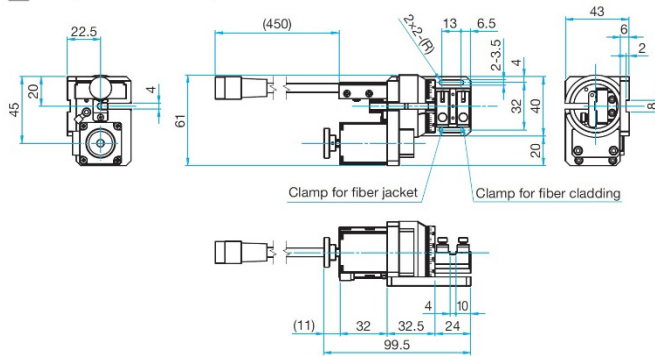
Vacuum Pump **DA-20D** (ULVAC, Inc.)
Silicon Tubes

Note 1 With a move command in the "+" direction, the holder moves in the CW direction viewed from the front (anti-motor side).
No home sensor or proximity home sensor is provided. A limit sensor is used as the home sensor.

Note 2 Compatible cable connector:
Hirose Electric Co., Ltd. RP17-13PA-12PC/RP17-PC-122

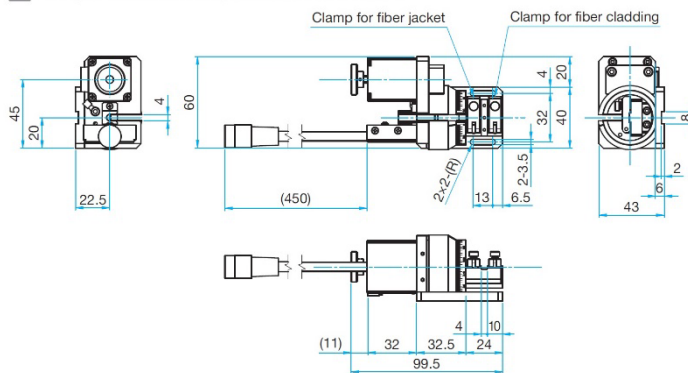
FHRA-125/L**

Hexagonal socket head cap screw M3x10...2 screws



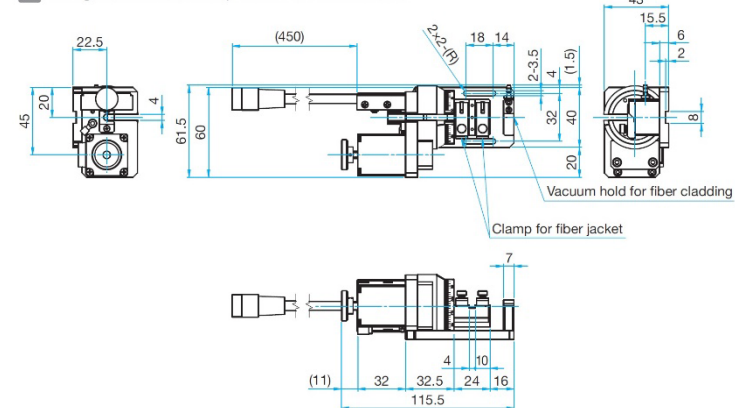
FHRA-125/R**

Hexagonal socket head cap screw M3x10...2 screws



FHRAW-125/L**

Hexagonal socket head cap screw M3x10...2 screws



FHRAW-125/R**

Hexagonal socket head cap screw M3x10...2 screws

