FITEL
FUSION SPLICERS

FURUKAWA
ELECTRIC GROUP

S185EVROF

Designed for novelty fibers and beyond



Three electrode Ring of Fire™ arc-discharging and STA²D™



Dual Mirror System-simultaneous view of both fiber ends



World's first Composite Image Technology - both fiber images overlapped for precise alignment

- Best-in-class, compact and portable solution for hollow-core and multi-core fibers
- STA²D - sequential asymmetric arc-discharge fine tuned for all types of hollow-core fiber and small cladding fibers
- Composite Image Technology overlays both end view fiber images into one picture ensuring precise match
- Highly accurate rotational alignment (0.1 degree)
- Side view mode for traditional fibers

The FITEL S185EVROF combines the cutting-edge features of ROF (Ring of Fire) and EDV (End View) into a single, unprecedented device. The End View System enhances user control, by offering detailed images of fiber cross-sections, making it particularly effective for intricate internal structures such as multi-core and hollow-core fibers.

The proven three-electrode arc discharge system, known for achieving low loss on multi-core fibers, is now reinforced by allowing end-users to view fiber cross-sections before splicing. HCF and MCF are especially sensitive fibers, with excessive heat potentially compromising their structure. The three-electrode discharge ensures uniform heating, while our STA²D (Sequential Triangular Asymmetric Arc Discharging) system effectively heats the delicate structure of hollow-core fibers, preserving the internal microstructure.

Integrating these three systems results in precision splicing performance and industry-leading low loss.

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Specification

Description	S185EVROF
Applicable fibers*1	SM, MM, DS, NZDS, High-Index, EDF, LDF, PMF, MCF, HCF
Cladding diameter	Splice: 80*2 to 800 µm End view: 125 to 500 µm
Coating diameter	160 to 1300 µm (In Fiber holder) 160 to 900 µm (Coating clamp splice)
Fiber cleave length	3 mm (Coating clamp splice) 8 to 10 mm (Cladding clamp splice)
Typical splice loss*3	SM (ITU-T G652): 0.014 dB
Typical extinction ratio*3	PANDA: 40 dB*4 (Angle offset: 0.6 degree)
Return loss	>60 dB
Typical splice time*5	15 s (SM by cladding clamp splice) 50 s (PANDA by cladding clamp splice)
Tension strength	1.96 N (+0% to +20%)
Applicable protection sleeve length	10 to 60 mm
Typical heat time	35 s (S922: 40 mm sleeve)
Splice programs	Max. 200
Heater programs	Max. 100
Splice data storage	Max. 1000 including 4 images before and after splice
Fiber image magnification on LCD	104 X, 278 X or 556 X (Side view) 64 X (End view)
Dimension	210 W x 180 D x 165 H mm
Weight (without Battery)	4.9 kg
Monitor	4.3" wide color LCD with touch panel
Data output	USB ver. 2.0 type A: 1 port USB ver. 2.0 mini B: 1 port
Operating temperature	0 to 40°C
Storage temperature	-40 to 60°C
Humidity	0 to 90% (Non-condensing)
Power source	AC input 100 to 240 V (50/60 Hz)

*1 Fibers should be applied to ITU-T standard. In case of other fibers, depending on the type of fiber, the optimization of splice program may be needed or the splice result may not be satisfied.
*2 Coating clamp splice (Coating Diameter >125 µm)
*3 These are references. Depending on the environment and condition, the number vary.
*4 Extinction ratio 40 dB is measured in the condition that the initial extinction ratio is more than 50 dB and there is the splice with 0.6 degree of rotation offset.
*5 This value is references. Depending on the type of fiber and condition of fiber on splicer, the number can vary.

Standard package

Item	P/N	Quantity	
		-00	-01
S185EVROF Main body	S185EVROF-X-A-0001	1	1
Hard Carrying Case	HCC-12	–	1
AC Adapter	MDS-150AAS24BD	1	1
AC Cable Code	–	1	1
Z Stage Lock	ZL-01	1 pair	1 pair
Spare Electrode	ELR-07	1 set	1 set
Change Tool for Vertical Electrode	–	1	1
Rear LED Cover for Small Diameter	–	1 pair	1 pair
Electrode Sharpener	D5111	1	1
Cleaning Brush	VGC-01	1	1
User Manual	–	1	1



Standard Package



Hard Carrying Case

Optional components

Item	P/N	Quantity
160 µm Coating Fiber Holder	S713S-160	1 pair
250 µm Coating Fiber Holder	S713S-250	1 pair
300 µm Coating Fiber Holder	S713S-300	1 pair
400 µm Coating Fiber Holder	S713S-400	1 pair
500 µm Coating Fiber Holder	S713S-500	1 pair
550 µm Coating Fiber Holder	S713S-550	1 pair
650 µm Coating Fiber Holder	S713S-650	1 pair
900 µm Coating Fiber Holder	S713S-900	1 pair
1300 µm Coating Fiber Holder	S713S-1300	1 pair
550 µm Coating BW Fiber Holder	S713B-550	1 pair
1000 µm Coating BW Fiber Holder	S713B-1000	1 pair
Fiber Holder for Loose Tube	S713S-250LT	1 pair
Customized Fiber Holder*6	S713X-XXX	1 pair
USB Cable	USB-01	1
Wi-Fi Dongle	WFD-01	1

*6 Available Suitable size Fiber holder depending on the coating diameter of splicing fiber.



Fiber Holder

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