

**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.

**FURUKAWA  
ELECTRIC**

## Specification

Description	S185EVROF	
Applicable fibers*1	SM, MM, DS, NZDS, High-Index, EDF, LDF, PMF, MCF, HCF	
Cladding diameter	Splice: 80 <sup>+2</sup> to 800 $\mu$ m    End view: 125 to 500 $\mu$ m	
Coating diameter	160 to 1300 $\mu$ m (In Fiber holder)	160 to 900 $\mu$ m (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  $\mu$ m)  
 \*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 $\mu$ m Coating Fiber Holder	S713S-160	1 pair
250 $\mu$ m Coating Fiber Holder	S713S-250	1 pair
300 $\mu$ m Coating Fiber Holder	S713S-300	1 pair
400 $\mu$ m Coating Fiber Holder	S713S-400	1 pair
500 $\mu$ m Coating Fiber Holder	S713S-500	1 pair
550 $\mu$ m Coating Fiber Holder	S713S-550	1 pair
650 $\mu$ m Coating Fiber Holder	S713S-650	1 pair
900 $\mu$ m Coating Fiber Holder	S713S-900	1 pair
1300 $\mu$ m Coating Fiber Holder	S713S-1300	1 pair
550 $\mu$ m Coating BW Fiber Holder	S713B-550	1 pair
1000 $\mu$ m 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



Fiber Holder

## FURUKAWA ELECTRIC CO., LTD.

Please understand that contents of this catalog may change without notice.

### Export Control Regulations

The products and/or technical information presented in this publication may be subject to the application of the Foreign Exchange and Foreign Trade Act and other related laws and regulations in Japan. In addition, the Export Administration Regulations (EAR) of the United States may be applicable. In cases where exporting or reexporting the products and/or technical information presented in this publication, customers are requested to follow the necessary procedures at their own responsibility and cost. Please contact the Ministry of Economy, Trade and Industry of Japan or the Department of Commerce of the United States for details about procedures.

JE-255 2503 TR 100 D