FITEL® FUSION SPLICERS

FURUKAWA ELECTRIC GROUP

FITEL® S179 Fusion Splicer

Hand-Held, Core Alignment Fusion Splicer



Features and Benefits

- Exceptional performance for fast and consistent fiber splicing
- Enhanced ease of use and portability
- High-speed splicing and heating[1]
- Ruggedized body design
- Easy, intuitive operation
- Compatible with Splice-On-Connectors (SOC)
- State-of-the-art communication methods
- Quick and easy maintenance

Overview

The FITEL S179 Hand-Held, Core Alignment Fusion Splicer offers powerful performance, delivering fast and reliable optical fiber splicing even under harsh environmental conditions. By combining speed, precision, durability, portability and state-of-the-art communication methods in one unit, this fusion splicing machine opens the door to an entirely new range of applications. The FITEL S179 Fusion Splicer is highly effective for use in data centers, long-haul operations, Metro, LAN, and FTTx fiber, including ultra bend-insensitive fibers as well as large area effective fibers.

Applications

- Fiber sensors
- Manufacture of optical components
- FTTx
- LAN
- Backbone
- Enterprise
- Long-haul
- Data Centers

Product Description

Designed with users in mind, the FITEL S179 Fusion Splicer delivers rapid splicing and heating ability with consistent results, splice after splice. A large-capacity battery system helps save time by allowing 200 splicing cycles (splicing/heating) in one charge.[1] While a 4.3-inch wide LCD screen with touch panel offers easy and intuitive operation, a proportionately wide splicing chamber makes optical fiber easy to load. For improved visibility in low-light conditions, 3+1 LED lights illuminate the entire splicing chamber. A detachable, left-side V-groove makes cleaning and maintenance a breeze.

The S179 Fusion Splicer is also designed to meet the rigors of use in the field. While a substantially lower profile and lighter weight enhance portability, this splicer's canopy design and ruggedized body provide resistance to shock, water and dust exposure. A powerful, high propulsion motor (8N) helps ensure stable splicing for the most rigid indoor and drop cables. Internal battery charging, embedded Near Field Communication (NFC) and Smartphone readiness combine with other features to make the S179 one of the most powerful and user-friendly fusion splicing machines available today.

[1] In semi-auto splicing mode and regular heating mode

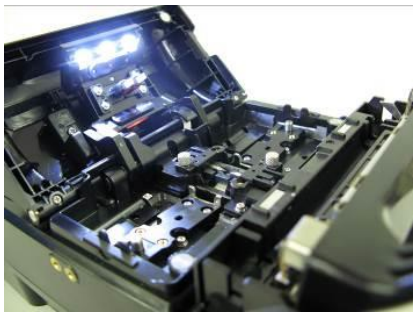
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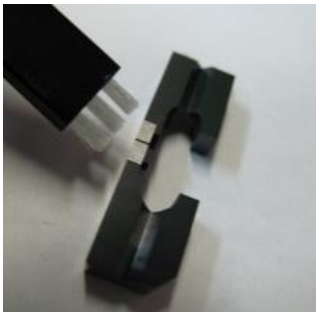
New Features

- **Touch Screen:** 4.3-inch wide LCD screen
- **Illumination lamp:** 3 upper + 1 lower LED
- **Detachable V-groove:** Easy maintenance and lens cleaning
- **NFC:** Lock and unlock splicer via smartphone (only for Android phone ver. 4.1 or after)
- **WiFi Networking:** Communication between splicer and smartphone
- **High speed:** 6 sec of splicing time and 9 sec of heating time



Touch Screen


Illumination lamp: 3+1 LED



Detachable V-groove and Easy Cleaning



NFC: Lock and Unlock

Under Tough Environments

- **Shock Resistant:** Equivalent to IK07 rating Mechanical impact[2]
- **Drop Resistant:** 76 cm drop tests from 5 different angles[3]
  120 cm drop tests with hard carrying case[3]
- **Water Resistant:** Equivalent to IPX2 rating drip proof[4]
- **Dust Resistant:** Equivalent to IP5X rating dust proof[5]


Shock Resistant


Drop Resistant


Water Resistant



Dust Resistant

[2] IK07 rating Mechanical impact means that the machine protects against 2 jour impact, it is equivalent to 500g force from 40cm. This does not guarantee that the machine will always be undamaged under these conditions.

[3] Standard operations could be carried out after conducting the above tests. These tests were performed at the Furukawa Electric Co., Ltd. laboratories with no significant damage resulting. This does not guarantee that the machine will always be undamaged under these conditions.

[4] IPX2 rating drip proof means that the machine can be exposed to 3 mm/min drips for 10 minutes with 15 degree tilt and still function.

[5] IP5X rating dust proof means that the machine can be exposed to dust particles with a diameter of 0.1 µm to 25 µm and still function.

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Product Specifications

Applicable Fibers	SM (ITU-T G.652, G.657A1 and G.657A2), MM (ITU-T G.651), DSF (ITU-T G.653), Cut-off Shifted Fiber (ITU-T G.654, Large Area type), NZD (ITU-T G.655), BIF/UBIF (Bend Insensitive Fiber ITU-T G.657B3)
Cladding Diameter	80 - 150 µm
Coating Diameter	100 - 3000 µm
Fiber Cleave Length	5 - 16 mm
Average Splice Loss	SM:0.02dB, MM:0.01dB, DSF:0.04dB, NZD:0.04dB
Splice Time	6 seconds (Semi-auto mode)
Heat Time[6]	9 (60mm, Tyco SMOUV1120-01, coating diameter 250-900µm, Power mode) 13 (60mm, FITEL S921, coating diameter 250µm, Power mode) 15 (60mm, FITEL S921, coating diameter 900µm, Power mode)
Splice Programs	Max. 300
Automatic Splicing Selection	Available
Heat Programs	Max. 100
Automatic Heating Start	Available
Applicable Sleeves	20/40/60 mm
Fiber Holder	Tight Holder (loose tube applicable) or Removable Fiber Holder System
Tension Test	1.96 N
Splice Return Loss	70 dB or more
Attenuation Splice Function	Intentional high splice loss of 0.1dB to 15dB(0.1dB step) can be made for an inline fixed attenuator
Fiber Image Magnification	104X, 278X, 556X
Splice Result Strage	20,000
Image Capture Capacity	Last 100 images to be automatically captured + up to 100 images to be stored permanently
Dimension	139W x 209D x 114H mm (not including shock absorber) 179W x 246D x 131H mm (including shock absorber)
Weight	1.7 kg (without battery), 2.0 kg (with battery)
Monitor	4.3” wide color LCD monitor with touch screen
Propulsion (motor)	8 N (designed value)
Data Output	USB ver. 2.0 mini B x 1 port, Standard A x 1 port
Battery Capacity[7]	Typical 200 splice/heat cycles, 90sec/cycle
Altitude	5000 m
Wind Protection	15 m/s
Operating Temperature	-10 to + 50 °C (without excessive humidity)
Storage Temperature	-40 to +60 °C (without excessive humidity)
Humidity	0 to + 95% RH (non-condensing)
Power Source	AC Input 100 to 240V (50/60Hz), DC Input 11 to 24 V

[6] The heating time may vary depending on the type of sleeve. In addition, the first heating time after turning the power on can be longer than the standard heating time.
[7] The number of splicing and heating cycles the machine can perform with a fully charged battery at 20 ℃ in semi-auto splicing mode and regular heating mode. The number of cycles may vary depending on the battery status and operating conditions.



Standard Package

Standard Package

Item	P/N	Quantity
FITEL S179 Fusion Splicer	S179A	1
Built-in Battery Pack	S947A	1
Hard Carrying Case	HCC-05	1
Spare Electrodes	ELR-01	1
AC Adapter	S979A	1
AC Power Cord	-	1
Cooling Tray	CTX-03	1
Cleaning Brush	VGC-01	1
Electrode Sharpener	D5111	1
Tool Case	TCC-01	1
LCD ant-reflective sheet	ARS-01	1
Instruction Manual	UMC-02	1
Quick Reference Guide	FTS-B526	1



Accessories



Tight Holders



Fiber Holders
for Loose Tube Fiber



Fiber holder Holders



SOC Holders

Optional Components

Item	P/N	Quantity
USB Cable	USB-01	1
Battery Charger	S980A	1
Soft Carrying Case	SCC-01	1
Angled Stand	AGS-02	1
Working Belt	WBT-01	1
Car Cigarette Cable	CDC-04	1
Heater Clamp Base for SOC	HBS-01	1
Tight Holder		
16 mm Cleave Length	S712T-016	1 pair
10 mm Cleave Length	S712T-010	1 pair
Universal	S712T-UN	1 pair
Fiber Holder		
160 µm coated fiber	S712S-160	1 pair
250 µm coated fiber	S712S-250	1 pair
500 µm coated fiber	S712S-500	1 pair
900 µm coated fiber	S712S-900	1 pair
Fiber Holder Loose Tube Fiber (Left side)		
Loose Tube Fiber (Left side)	S712S-LT-L	1
Loose Tube Fiber (Right side)	S712S-LT-R	1
SOC Holder		
Seiko Giken FC/SC ferrule (9mm)	S712C-SGS9-L	1
Seiko Giken FC/SC ferrule (5mm)	S712C-SGS5-L	1
Seiko Giken LC ferrule (9mm)	S712C-SGL9-L	1
Seiko Giken LC ferrule (5mm)	S712C-SGL5-L	1
Seiko Giken TOUCH Plus SC (9mm)	S712C-SGS9C-R	1
Diamond E2000™/E3000™ ferrule	S712C-DM25-L	1
Seiko Giken Cordage (5mm)	S712C-SGC5-R	1
Seiko Giken Cordage (9mm)	S712C-SGC9-R	1
Diamond Cordage (5mm)	S712C-DMC5-R	1
WiFi dongle	WFD-01	1

Ordering Number Form S179A-(X1)-(X2)

Category	Coad	Description
Fiber holder type	1	16 mm Tight Holder
	2	10 mm Tight Holder
	3	Fiber Holder System
	4	Universal Tight Holder
WiFi dongle	0	W/O WiFi dongle
	1	W/ WiFi dongle

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