

FITEL[®] S179 Fusion Splicer

Hand-Held, Core Alignment



Features and Benefits

- Fast and consistent fiber splicing for exceptional performance
- NEW design features enhanced ease of use, maintenance, speed and shock resistance (see page 2)
- Large capacity, internal battery charging system allows 200 splicing cycles (splicing/heating) in one charge¹
- Wide splicing chamber for easy fiber loading
- Lower profile, lighter weight design enhances portability
- Powerful, high-propulsion motor (8N) for stable splicing
- Compatible with Splice-On-Connectors (SOC)

Overview

The powerful FITEL S179 Hand-Held, Core Alignment Fusion Splicer delivers fast and reliable optical fiber splicing even under harsh environmental conditions. Offering a wide range of capabilities, this fusion splicing machine opens the door to an entirely new range of applications.

Applications

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

Product Description

Designed with end users and rugged field use in mind, the FITEL S179 Fusion Splicer delivers rapid splicing and heating for consistent results, splice after splice. Suitable for use with ultra-bend insensitive and large area effective fibers, this fusion splicing machine is an excellent choice for a variety of deployments including data centers, Metro and FTTx.

A broad range of new features that enhance communication, ease of use, portability and field durability combine to make the S179 Fusion Splicer one of the most powerful and user-friendly fusion splicing machines available today.

¹In semi-auto splicing mode and regular heating mode

NEW Features

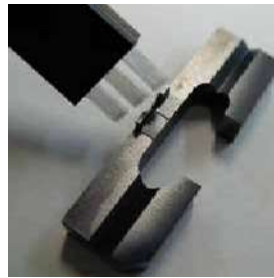
- **Touch Screen:** 4.3-inch wide LCD screen with touch panel for easy, intuitive operation
- **Illumination Lamp:** 3 upper + 1 lower LED lights illuminate the entire splicing chamber
- **Detachable V-Groove:** Easy maintenance and lens cleaning
- **Near Field Communication (NFC):** Lock and unlock splicer via smartphone (only for Android phones, ver. 4.1 or later)
- **Wi-Fi Networking:** Communication between splicer and smartphone
- **High Speed:** 6 seconds of splicing time and 9 seconds of heating time



ILLUMINATION LAMP:
3+ 1 LED LIGHTS



DETACHABLE V- GROOVE
FOR EASY CLEANING



NFC:
LOCK AND UNLOCK

Under Tough Environments

- **Shock Resistant:** Equivalent to IK07 rating Mechanical impact²
- **Drop Resistant:** 76 cm drop tests from 5 different angles³
120 cm drop tests with hard carrying case³
- **Water Resistant:** Equivalent to IPX2 rating drip proof⁴
- **Dust Resistant:** Equivalent to IP5X rating dust proof⁵



SHOCK RESISTANT



DROP RESISTANT



WATER RESISTANT



DUST RESISTANT

² IK07 rating Mechanical Impact means that the machine protects against 2 joule impact, it is equivalent to 500g force from 40cm. This rating 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 result 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.

FITEL® S179 Fusion Splicer

| 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:0.02 dB, MM:0.01 dB, DSF:0.04 dB, NZD:0.04 dB |
| Splice Time | 6 seconds (Semi-auto mode) 9 seconds (Regular mode) |
| Heat Time ⁶ | 9 (60 mm, Tyco SMOUV1120-01, coating diameter 250-900 µm, Power mode) 13 (60 mm, FITEL S921, coating diameter 250 µm, Power mode) 15 (60 mm, FITEL S921, coating diameter 900 µm, 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 0.1 dB to 15 dB (0.1 dB step) can be made for an inline fixed attenuator |
| Fiber Image Magnification | 104X, 278X, 556X |
| Splice Result Storage | 20,000 |
| Image Capture Capacity | Last 100 images to be automatically captured + up to 100 images to be stored permanently |
| Dimension | 139 W x 209 D x 114 H mm (not including shock absorber) 179 W x 246 D x 131 H mm (including shock absorber) |
| Weight | 1.7 kg (without battery), 2.0 kg (with battery) |
| Monitor | 4.3-inch 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, 90 second/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 240 V (50/60Hz), DC Input 11 to 24 V |

⁶The 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.

⁷The number of splicing and heating cycles the machine can perform with a fully charged battery at 20 °C 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



Accessories

For additional information please contact your sales representative.

You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.

Fusion Splicer Customer Service, Training and Service Center

Toll Free: 866-452-9516
 Phone: 678-783-1090
 Fax: 678-783-1093
 Email: splicers@ofsoptics.com



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Delivery list

| Item | P/N | Quantity |
|---|----------|----------|
| FITELE S179 Fusion Splicer | S179A | 1 |
| Built-in Battery Pack | S947A | 1 |
| Hard Carrying Case | HCC-05 | 1 |
| Spare Electrodes | ELR-01 | 1 |
| AC Adapter without power cord | S979A | 1 |
| Left & right 250µm fiber holder | | 1 |
| Left & right 500µm fiber holder (valid for 600/900µm fiber) | | 1 |
| Cooling Tray | CTX-03 | 1 |
| Cleaning Brush | VGC-01 | 1 |
| Electrode Sharpener | D5111 | 1 |
| Tool Case | TCC-01 | 1 |
| LCD anti-reflective sheet | ARS-01 | 1 |
| Instruction Manual | UMC-02 | 1 |
| Quick Reference Guide | FTS-B526 | 1 |

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 | S712-T-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) | S712S-LT-L | 1 pair |
| Loose Tube Fiber (Right side) | S712S-LT-R | 1 pair |

For DIAMOND SOC holders and equipment, see separate DIAMOND SOC Data-sheet