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Data Sheet

August 2, 2026

FUJIKURA

Fujikura 90S Core Alignment Fusion Splicer

Interface: USB 2.0 Mini-B; USB-A LED lamp; Mini-DIN ribbon stripper; Bluetooth 4.1 LE Data: 100 splice modes; 30 heat modes; 20,000 results; 100 images Use CT50 with Active Blade Management when available. Keep V-grooves clean. Charge BTR-15 within recharge temperature limits. Follow IATA rules for air shipping batteries. Confirm 90S vs 90S+ on the faceplate. 90S+ adds Active Fusion Control; do not assume AFC on base 90S. Fujikura 90S Core Alignment Fusion Splicer The Fujikura 90S is a single-fiber active core-alignment fusion splicer with faster automated wind-protector and heater response than the prior 70S+ generation. It uses advanced image processing for high-precision core alignment, Active Blade Management with CT50 cleavers (up to two simultaneously), universal sheath clamps for 250 um and 900 um loose-tube fiber, fiber retention clamps, and a touchscreen. Typical SM FAST splice time is about 7-9 seconds; AUTO about 14-16 seconds. Typical average splice loss is 0.02 dB G.652/G.657, 0.01 dB G.651, and 0.04 dB G.653/G.655. Battery capacity is about 300 splice and heat cycles. The later 90S+ adds Active Fusion Control (AFC) for poor-cleave fibers.



MODEL

Fujikura 90S

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

90S

LISTING

<https://aumictechlabs.com/products/90s-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fujikura 90S is a precision core-alignment fusion splicer engineered for single-fiber splicing in field and laboratory environments. It delivers average splice loss of 0.02 dB on single-mode fiber using active core alignment, with splice times ranging from 7 to 16 seconds depending on

mode and fiber type. The 90S integrates Active Fusion Control Technology (AFCT) for real-time arc power optimization based on cleave quality and fiber brightness analysis, paired with Active Blade Management Technology (ABMT) for wireless cleaver integration and blade wear monitoring.

Technical Specifications

Splicing Performance

Fiber alignment method: Active core alignment

Applicable fiber types: Single-mode and multi-mode optical fiber

Cladding diameter compatibility: 80 to 150 μm (including 125 μm standard)

Coating diameter range: 100 to 3,000 μm (including 250 μm , 400 μm , 900 μm , and 160 μm options)

Cleave length: 5 to 16 mm (standard); 5 to 10 mm (alternate); 5 to 13 mm (with FH-60-250 and FH-60-900 holders)

Average splice loss (SM): 0.02 dB (measured per ITU-T/IEC cut-back method on identical Fujikura fiber)

Splice time: 7–9 seconds (SM FAST mode); 11–16 seconds (SM AUTO and standard AUTO modes); 9–15 seconds (60 mm modes)

Heat time: Average 9 seconds standard; 13–15 seconds (60 mm mode)

Key Features

Active Fusion Control Technology (AFCT) Combines end-face analysis with real-time fusion monitoring. Evaluates cleave quality and fiber brightness during the fusion arc, then adjusts arc power automatically to optimize splice parameters.

Active Blade Management Technology (ABMT) Wireless communication with up to two Fujikura CT50 cleavers. Monitors cleave count and blade wear, commands blade rotation when worn, and displays remaining blade life with replacement advisories.

Hardware & Interface Automated wind protector with manual override capability

Universal automated sheath clamps for both 250 μm and 900 μm loose-tube fiber

Fiber retention clamps for enhanced stability

5.0-inch graphical touchscreen interface

Tool-less electrode replacement design

Compatibility & Integration The 90S accommodates single-mode and multi-mode fibers with cladding diameters from 80 to 150 μm and coating diameters up to 3,000 μm . Wireless integration with Fujikura CT50 cleavers enables automated blade management and real-time cleaver status feedback. Performance specifications are measured at room temperature with AC adapter power; environmental conditions, fiber characteristics, sleeve type, and battery condition affect actual heat and splice times.

Features & description

From manufacturer datasheet

Features

• Active core alignment; single fiber • Automated wind protector and heater • Active Blade Management (Bluetooth CT50; up to 2 cleavers) • Universal sheath clamps; fiber retention clamps • Typical SM FAST 7-9 s; heat slim 60 mm about 9-10 s • Typical loss 0.02 / 0.01 / 0.04 / 0.04 / 0.02 dB (G.652/651/653/655/657) • About 300 splice/heat cycles; about 5000 electrode life • About 5-inch TFT touchscreen • Tool-less electrode replacement • Related: 90S+ (adds AFC)

90S Characteristics / Specifications

PARAMETER	VALUE
Model	90S (FSM-90S class)
Manufacturer	Fujikura / AFL
Instrument Type	Active core-alignment fusion splicer
Applicable Fibers	SM and MM optical fiber
Fiber Count	Single
Cladding Diameter	80-150 um
Coating Diameter	max 3000 um (sheath clamp)
Cleave Length	5-16 mm (fiber-type dependent)
Typical Average Splice Loss	0.02 dB G.652; 0.01 dB G.651; 0.04 dB G.653; 0.04 dB G.655; 0.02 dB G.657
Splicing Time	SM FAST avg 7-9 s; AUTO avg 14-16 s
Heat Time	60 mm slim avg 9-10 s; 60 mm avg 13-15 s
Proof Test	about 2.0 N
Electrode Life	about 5000 splices
Dimensions	about 170 × 173 × 150 mm
Weight	about 2.8 kg with battery
Operating	-10 to 50 C; 0-95% RH non-condensing; max 5000 m
Storage	-40 to 80 C
Power	AC 100-240 V with ADC-20; battery BTR-15 about DC 14.4 V / 6380 mAh; about 300 cycles
Display	TFT about 5 inch touchscreen; magnification 200-320x
Interface	USB 2.0 Mini-B; USB-A LED lamp; Mini-DIN ribbon stripper; Bluetooth 4.1 LE
Data	100 splice modes; 30 heat modes; 20,000 results; 100 images Standard Operating Conditions Use CT50 with Active Blade Management when available. Keep V-grooves clean. Charge BTR-15 within recharge temperature limits. Follow IATA rules for air shipping batteries.

PARAMETER	VALUE
Related	90S+ (adds AFC)

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Typical Average Splice Loss	0.02 dB G.652; 0.01 dB G.651; 0.04 dB G.653; 0.04 dB G.655; 0.02 dB G.657
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Operational Notes

Confirm 90S vs 90S+ on the faceplate. 90S+ adds Active Fusion Control; do not assume AFC onabase 90S.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.