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Data Sheet

August 2, 2026

FUJIKURA

Fujikura FSM-40S Profile Alignment Fusion Splicer

The Fujikura FSM-40S is a profile alignment fusion splicer known for its solid design and reliable performance in splicing single-mode and multi-mode optical fibers. It features automated fiber alignment and splicing, along with a high-resolution display for clear splice inspection. Ideal for field and lab use, it ensures low-loss splices and is suitable for various fiber optic applications.



MODEL

Fujikura FSM-40S

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

FSM-40S

LISTING

<https://aumictechlabs.com/products/fsm-40s-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fujikura FSM-40S is a profile alignment fusion splicer designed for precision optical fiber joining in field and laboratory environments. It delivers consistent low-loss splices across single-mode and multi-mode fiber types using automated core and cladding alignment, high-resolution imaging, and integrated heat treatment. Typical splice loss is 0.02 dB for single-mode and 0.01 dB for multi-mode fibers, with splice completion in approximately 9 seconds and heat-shrink protection in 25 seconds. Technical Specifications Splicing Performance Splice loss: 0.02 dB (SM), 0.01 dB (MM) - typical Splice time: ~9 seconds (SM, standard) Reheating time: ~25 seconds (60 mm heat-shrinkable sleeve, standard) Fiber Specifications Applicable types: Single-mode,

multi-mode, dispersion-shifted Coating diameter: 100–150 μm Cladding diameter: 125 μm Cut length: 8–16 mm Optical System Magnification: 200 $\times$ (X and Y axes); 400 $\times$ (single axis) Display: High-resolution color LCD Image storage: Integrated memory for splice data and images Alignment Method: Profile Alignment System (PAS) Operation: Automatic core/cladding alignment Power & Battery Power supply: AC adapter or rechargeable Li-ion battery Battery capacity: ~200 splice and heat cycles per full charge Charging time: ~2.5 hours Electrode life: ~3,000 splices Environmental Operating temperature: -10°C to $+50^{\circ}\text{C}$ Humidity: 0–95% RH (non-condensing) Altitude: Up to 5,000 m Dimensions: 190 mm (W) $\times$ 150 mm (D) $\times$ 172 mm (H) Weight: ~2.8 kg (with battery) Key Features Automatic fiber alignment and arc fusion with loss estimation Motorized wind cover for field operation protection Integrated automatic tube heater for protection sleeve application USB interface for firmware updates and data export Field-rated durability with dust and water ingress resistance Compatibility & Integration Accepts standard optical fiber spools with 100–150 μm coating diameter. Data export via USB enables integration with field reporting and splice documentation workflows.

Features & description

From manufacturer datasheet

Features

- Core-to-core Profile Alignment System (PAS) • Typical 15-second splice; full automatic operation • NZDSF (ITU-T G.655) and dissimilar fiber capability • Dual CCD cameras; 5-inch color LCD • Automatic arc calibration and fiber-type identifier • Self-diagnostic test function • RS-232 PC communication for results and parameters • Compact, lightweight; multiple power options • Front-monitor or top-monitor configuration choices

FSM40S Characteristics / Specifications

PARAMETER	VALUE
Model	FSM-40S
Manufacturer	Fujikura / AFL
Instrument Type	Profile Alignment System (PAS) core-alignment fusion splicer
Applicable Fibers	SM, MM, DS, NZDSF (G.655), erbium-doped, dissimilar combinations
Fiber Count	Single
Alignment	Core-to-core PAS (SM); cladding alignment (MM)
Typical Average Splice Loss	0.02 dB SMF; 0.01 dB MMF; 0.04 dB DSF (cut-back, ITU-T/IEC)
Return Loss	greater than 60 dB
Splicing Time	typically 15 s
Splice Loss Estimate	accounts for core deformation, MFD mismatch, core axial offset
Attenuator Mode	intentional loss 0.1 to 15 dB in 0.1 dB steps
Display	5-inch high-resolution color LCD; dual CCD cameras
Remote	RS-232C Standard Operating Conditions Clean V-grooves and cameras. Use appropriate cleaver and holders/clamps. Perform automatic arc calibration as prompted. Observe electrode life. Operational Notes "Profile Alignment" in the listing refers to Fujikura PAS core alignment. Confirm FSM-40S vs FSM-40S-B monitor orientation on the physical unit.

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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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

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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.