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Data Sheet

August 2, 2026

FUJIKURA

Fujikura FSM-100P+ Polarization Maintaining Fusion Splicer

The Fujikura FSM-100P+ is a precision fusion splicer engineered for polarization-maintaining and specialty optical fibers in demanding laboratory, manufacturing, and research environments. It delivers dual-method splice loss estimation via Cold Splice Image (CSI) and Warm Splice Image (WSI) technologies, ensuring signal integrity across fiber types where polarization state preservation is critical. Telecommunication fibers: SMF (ITU-T G652), NZDSF (ITU-T G655), MMF (ITU-T G651), EDF, DCF Specialty fibers: Heat-sensitive fibers, non-circular geometries, photonic crystal structures Interrelation Profile Alignment (IPA) 2: Advanced algorithm supporting octagonal fibers, elliptical cores, and multicore fibers with optical fiber rotation capability



MODEL

Fujikura FSM-100P+

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

FSM-100P+

LISTING

<https://aumictechlabs.com/products/fsm-100p-4/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fujikura FSM-100P+ is a precision fusion splicer engineered for polarization-maintaining and specialty optical fibers in demanding laboratory, manufacturing, and research environments. It delivers dual-method splice loss estimation via Cold Splice Image (CSI) and Warm Splice Image (WSI) technologies, ensuring signal integrity across fiber types where polarization state

preservation is critical. Technical Specifications Fiber Dimensions: Cladding diameter: 80 μm to 1200 μm Coating diameter: 100 μm to 2000 μm Cleave length: 3 mm to 26 mm Fiber Compatibility: Telecommunication fibers: SMF (ITU-T G652), NZDSF (ITU-T G655), MMF (ITU-T G651), EDF, DCF Polarization-maintaining fibers: PANDA and equivalent PMF types Large diameter fibers (LDF): Conventional silica construction Specialty fibers: Heat-sensitive fibers, non-circular geometries, photonic crystal structures Key Features Interrelation Profile Alignment (IPA) 2: Advanced algorithm supporting octagonal fibers, elliptical cores, and multicore fibers with optical fiber rotation capability Core Alignment (PAS): Direct optical core positioning for precise alignment Power Meter Feedback: GPIB-enabled alignment integration with external power meters Plasma Zone Control: Electrode positioning for LDF, heat-sensitive, and small-diameter fiber splicing Sweep Arc Technology: Extended movement capability for fiber positioning during splice processing Typical Applications Fiber laser systems, optical component manufacturing, sensor development, photonic research, and telecommunications infrastructure requiring polarization-state fidelity. Compatibility & Integration The FSM-100P+ handles cladding diameters spanning 80–1200 μm and coating diameters up to 2000 μm , accommodating standard telecom fibers through highly specialized non-circular and holey structures. GPIB communication enables external instrument feedback for alignment optimization.

Features & description

From manufacturer datasheet

Features

- ARCMaster FSM-100P specialty / PM splicer
- Cladding diameter about 60-500 μm ; coating to about 2000 μm
- PM fiber splicing capability
- Split V-groove and movable electrode arc control
- Dual 4.1-inch color LCD monitors
- Sweep Arc processing (about ± 5 mm)
- Cold and warm splice-loss estimation
- USB and IEEE-488 interfaces (series)

FSM100P Characteristics / Specifications

PARAMETER	VALUE
Model	FSM-100P
Manufacturer	Fujikura
Series	FSM-100 ARCMaster
Instrument Type	Specialty / polarization-maintaining fusion splicer
Applicable Fibers	SMF (G.652), NZDSF (G.655), MMF (G.651), EDF, DCF, LDF, other specialty; PANDA and other PMF
Fiber Count	Single
Cladding Diameter	60 um to 500 um
Coating Diameter	100 um to 2000 um
Cleave Length	Coating clamp about 3-8 mm (std 4 mm); Glass clamp about 8-13 mm (std 9 mm)
Typical Splice Loss	0.03 dB SMF; 0.05 dB NZDSF/LDF; 0.02 dB MMF; 0.06 dB PMF
Splice Time	15 s SMF/MMF; 25 s NZDSF/LDF; 30-50 s PANDA PMF; 70-300 s non-PANDA PMF
Typical Polarization Crosstalk	about -40 dB / 0.6 deg PANDA; -32 dB / 1.6 deg non-PANDA
EndView	not on FSM-100P (P+ only)
Electrode Swinging	not on FSM-100P (P+/M+ only)
Sweep Range	about +/-5 mm
Return Loss	greater than 60 dB
Electrode Life	about 2500 arcs (SMF, 1 mm gap)
Proof Test	1.96 to 2.45 N
Programs	about 300 splice / 100 heater
Storage	2000 splice results; 100 images
Display	Dual 4.1-inch color LCD; magnification 35-300 changeable
Dimensions	about 311 × 232 × 160 mm
Weight	about 8.0 kg
Power	AC 100-240 V with ADC-15

PARAMETER	VALUE
Operating	0-95% RH; 0 to 40 C Family Context

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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Family Context

FSM-100M: specialty/LDF to 500 um, no PM
 FSM-100P: PM to 500 um cladding, no EndView
 FSM-100M+ / 100P+: to 1200 um; electrode swing; sweep +/-18 mm; P+ adds EndView

Standard Operating Conditions

Use specialty cleavers and holders matched to cladding/coating. Select Fast PANDA or IPA mode for the PM fiber type. Confirm unit is FSM-100P not P+.

Operational Notes

ARCMaster is the Fujikura marketing name for the FSM-100 series plasma-zone control capability. Do not quote P+ EndView or 1200 um cladding forabase FSM-100P.

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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<https://aumictechlabs.com>

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.