



## FSM-40F & 40PM Fusion Splicer

To keep up with the development of DWDM optical communication devices, Fujikura developed the FSM-40F for high strength splicing and the FSM-40PM for splicing of PM fibers. The FSM-40F splices dissimilar fiber combinations, especially Erbium-doped fiber to single-mode fiber using patented sweep arc functions. The FSM-40PM combines all the features of the FSM-40F with excellent PM capabilities. Designed for accuracy and increased productivity, the 40PM offers fully automatic splicing modes for PANDA® and 3M Tiger™ fibers.

### Features

- Sweep arc technology minimizes splice loss when splicing dissimilar fibers
- Multi-functional movable V-groove and Z-mechanism provides short cleave length splicing with various coating diameters for high tensile strength splicing and small packaging requirements
- Fiber holder system increases splicing results by reducing skill dependency
- PC Interface and power meter feedback function allows download of splice results and modification of parameters by connection of RS232C cable to PC



### Specifications

PARAMETER	VALUE
Applicable Fibers	SM, MM, DS (dispersion shifted), NZ-DSF (non-zero dispersion shifted), CS (cut-off shifted), ED (erbium-doped) fibers PM (polarization maintaining) PANDA, 3M Tiger™, Bowtie (FSM-40PM only)
Fiber Cleave Length	8 to 10mm with bare fiber clamping; 3 to 5mm with coating clamping (*Ny Jacketed (Si buffer) or loose tube fiber cannot be used)
Actual Splice Loss	Typical 0.02dB (bare fiber clamping) / 0.03dB (coating clamping) with identical SM fibers (ITU-T G.652) Typical 0.04dB (bare fiber clamping) / 0.05dB (coating clamping) with identical DS fibers (ITU-T G.653) Typical 0.01dB (bare fiber clamping) / 0.01dB (coating clamping) with identical MM fibers (ITU-T G.651) Typical 0.06dB (bare fiber clamping) / 0.07dB (coating clamping) with identical PANDA fibers and identical 3M Tiger™ fibers (FSM-40PM only)
Splicing Time	Typical 25 seconds with SM/MM fibers; Typical 40 seconds with DS/NZ-DS fibers Typical 50 seconds (bare fiber clamping) with PANDA fibers (FSM-40PM only) Typical 100 seconds (bare fiber clamping) with 3M Tiger™ fibers (FSM-40PM only)
Return Loss	>60dB
Cross Talk with Pm Fibers	Typical -40dB (0.6 degree) with PANDA; Typical -32dB (1.4 degree) with 3M Tiger™ (FSM-40PM only)
High Tensile Strength Splicing Performance	Typical 2.5 Gpa (30N) with coating clamping
In-line Proof Tester	Approximately 2N
Viewing Method	5" TFT color LCD monitor with 350X, 270X, 175X, or 135X magnification, external RCA jack for NTSC video signal
Splice Loss Storage	Last 1200 splices
Altitude Requirement	0 to 3500m above sea level
Operating and Storage Temperature	0 to 40°C, 0 to 95% relative humidity (operating); -40 to 80°C, non-dew (storage)
Power Supply	AC100 to 240V (50/60 Hz) with ADC-10 adapter
Dimensions (W x D x H)	FSM-40PM (311mm x 218mm x 133mm), FSM-40F (311mm x 218mm x 127mm)
Weight	FSM-40PM (6.1kg); FSM-40F (5.5kg)

## FSM-40F & 40PM Fusion Splicer

### Ordering Information

DESCRIPTION	PART #
<b>FSM-40F Factory Fusion Splicer (machine only)</b> The FSM-40F fusion splicer comes with FH-40-250 fiber holders (pair), FH-40-900 fiber holders (pair), Clamp-40F-125 (pair), Clamp-40F-250 (pair), Clamp-40F-900 (pair), spare electrodes (pair), ADC-10 AC adapter/battery charger, AC cord, operation manual, and transit case.	S012006
<b>FSM-40PM Factory Fusion Splicer (machine only)</b> The FSM-40PM fusion splicer comes with FH-40-250 fiber holders (pair), FH-40-400 fiber holders (pair), FH-40-900 fiber holders (pair), Clamp-40PM-125 (pair), Clamp-40PM-250 (pair), Clamp-40PM-400 (pair), Clamp-40PM-900 (pair), spare electrodes (pair), ADC-10 AC adapter/battery charger, AC cord, operation manual, and transit case.	S012010
FMS-40F Factory Fusion Splice Kit	S012784
FMS-40PM Factory Fusion Splice Kit	S012788

\* Each kit includes a HJS-02 Hot Jacket Stripper, CT-04B-S8 Cleaver, SPA-HJS-030 Spacer for HJS-02, and an AC adapter for HJS-02 in addition to all the items listed above.

### Accessories Recommended for the 40F & 40PM

DESCRIPTION	PART #
<b>High Strength Accessories</b>	
Ultrasonic Cleaner (USC-01A)	S012732
HTS-12 High Tensile Stripper (40F/PM) includes 250µm blades (400µm available)	S012094
AFL PowerStrip High Tensile Stripper	S012808
HTC-20 High Strength Cleaver	S013288
AFL PowerCleave High Strength Cleaver	S009972
<b>Strippers</b>	
HJS-02 Hot Jacket Stripper	S010340
HJS-02-80 Hot Jacket Stripper (80µm cladding)	S013264
JS-02-900 (900µm)	S010908
<b>Cleaver</b>	
CT-04B-S8 (8mm cleave length)	S010904
<b>Fiber Clamps (Pairs)</b>	
Clamp-40F-80 (80-93µm coating or cladding)	S012030
Clamp-40F-125 (118-139µm coating or cladding)	S012034
Clamp-40F-250 (240-289µm coating or cladding)	S012038
Clamp-40F-400 (390-489µm coating)	S012042
Clamp-40F-600 (590-689µm coating)	S013296
Clamp-40F-900 (890-1000µm coating)	S012046
Clamp-40PM-80 (80-93µm coating or cladding)	S012050
Clamp-40PM-125 (118-139µm coating or cladding)	S012054
Clamp-40PM-250 (240-289µm coating or cladding)	S012058
Clamp-40PM-400 (390-489µm coating)	S012062
Clamp-40PM-600 (590-689µm coating)	S013300
Clamp-40PM-900 (890-1000µm coating)	S012066

DESCRIPTION	PART #
<b>Fiber Holders (Pairs)</b>	
FH-40-100 Fiber Holders (40F & 40PM) (94-117µm coating)	S012568
FH-40-150 Fiber Holders (40F & 40PM) (140-169µm coating)	S012572
FH-40-250 Fiber Holders (40F & 40PM) (240-289µm coating)	S012018
FH-40-400 Fiber Holders (40F & 40PM) (390-489µm coating)	S012022
FH-40-600 Fiber Holders (40F & 40PM) (590-689µm coating)	S012816
FH-40-900 Fiber Holders (40F & 40PM) (890-1000µm coating)	S012026
FH-40-900LT Fiber Holders (40F & 40PM) (Loose Jacketing 900µm)	S013584
<b>Spacers</b>	
SPA-40-CLV040 Spacer	S012078
SPA-40-CLV050 Spacer	S012082
SPA-HJS-030 Spacer for HJS-02 (allows 3, 4, or 5mm cleaving on 250 and 400µm fiber)	S012086
SPA-40-JS030 spacer for JS-02-900 (allows 3, 4, or 5mm cleaving on 900µm fiber)	S012090
<b>Power and Cords</b>	
ADC-10 AC Adapter (40F and 40PM)	S012548
ADC-02 AC Adapter for HJS-02	S010496
AC Power Cord (40F & 40PM) To be used with the ADC-10	S012552
<b>Miscellaneous</b>	
Electrodes: (FSM-20, 30, 40, all core alignment units)	S000041
40F and 40PM Allen Wrench (for fiber clamps) 1.3mm	S010512
40F and 40PM CO-01 External Controller Box	S012070
40F and 40PM Heater Fiber Guide Wire (each)	S012532
40F and 40PM Heater Transfer Base Assembly	S012544
40F and 40PM HP Coupling Adapter	S012180
40F and 40PM ILX Coupling Adapter	S012184
40F and 40PM Fiber Holder Adapter	S012188
One year extended warranty (splicers) for FSM-40F	S012996
Two year extended warranty (splicers) for FSM-40F	S013000