

OPTICAL FUSION SPLICER CFS-100

Precision Core Alignment Fusion Splicer



For professional splicing of all common fiber types

The core alignment, 3-axis controlled fusion splicer CFS-100 is the perfect companion for small and large splicing projects. The lightweight and flexible precision splicer allows splicing of G.651 fibers with a splice loss below 0.01 dB and of G.652 fibers below 0.02 dB (typical). Equipped with detachable universal retention clamps, SOC clamps and internal thermometer and barometer, the CFS-100 can be used anywhere. Fast five seconds start up time and an average of nine seconds per splice as well as the automatic heating furnace for shrink sleeves speed up the workflow and leads to more splices per time.

Intelligent systems support the user at work

The CFS-100 supports the user in troubleshooting and quality estimation by detecting the cleave break angle, the core axis offset, the cleanliness of the fiber and the splice loss. Create your own limit values and define them in profiles. Before each splicing process, an analysis of the splicability of the fibers and a fiber cleaning via cleaning arc is carried out. If the prospect of a satisfactory splice result is not good enough, the device cancels the process to save time-consuming rework. Re-ARC allows the subsequent improvement of the splice result.

If desired, splicing and shrinkage can be defined in detail in different profiles. If the user doesn't want to set them up manually, a fully automatic detection of the fiber type can also be carried out and the device determines the required parameters itself.

Designed for the harshest operating conditions

The sturdy housing is equipped with rubber buffers and a windscreen. The splice area has LED lighting for working in the most adverse environments. The bright, 5" LCD touch display has two modes of operation, which allows working in two positions from the front and back of the device. The replaceable 4400 mAh battery and the electrodes can be changed in seconds.

KEY BENEFITS:

- ★ 6 motors-core alignment for precise splicing results
- ★ Support for SMF (G.652), MMF (G.651), DSF (G.653), NZ-DSF (G.655), BIF (G.657) and EDF fibers
- ★ Universal 4 in 1 fiber retention clamps for bare fibers, pigtails, patch cords and FTTH indoor fiber splices
- ★ Splice time $\varnothing \leq 9$ s, heating time ≤ 25 s, adjustable
- ★ Automatic end surface inspection, automatic arc adjustment, loss estimation, temperature and pressure compensation
- ★ Automatic shrink oven for protection sleeves up to 60 mm
- ★ Compact and lightweight: 1,85 kg including battery
- ★ LED lighting of the splice area, connection of an external work light possible



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SPECIFICATIONS

Alignment method	Core alignment (3-axis-controlled)	
Number of simultaneously splicable fibers	1	
Supported fiber categories	Singlemode Multimode	
Fiber types and loss values	TU-T G.651 (MM) ITU-T G.652 (SM) ITU-T G.653 (SM DSF) ITU-T G.655 (SM NZ-DSF) ITU-T G.657 (SM BIF) EDF	≤ 0.01 dB (typical) ≤ 0.02 dB (typical) ≤ 0.04 dB (typical) ≤ 0.04 dB (typical) ≤ 0.02 dB (typical) ≤ 0.04 dB (typical)
Ø Cladding supported	~ 80 - 150 µm	
Ø Coating supported	~ 100 - 1000 µm	
Supported cleave length	8 - 16 mm	
Splice time	∅ ≤ 9 s (depending on mode and fiber orientation)	
Tensile test force	Approx. 2.0 N	
Splicing processes per electrode	≥ 5000 splicing operations	
Splice modes	Automatic and manual control	
Heating time shrink oven	≤ 25 s, adjustable	
Supported Length of shrinkable protection sleeve	≤ 60 mm	
Boot time	≤ 5 s	
Number of possible splice profiles	240	
Number of possible heating profiles	30	
Splice result	Splice display and loss estimation	
Memory	5000 splices (CSV), 100 screenshots	
Data transmission	Micro-USB cable	
Supported languages	EN, DE, FR, ES, IT, PT, RU, PL, RO, FI, ZH	
Display	5.0" colored touch-LCD	
Electrode lighting	LED	
Power supply for external lamp	10 - 12V DC	
Battery time	≥ 200 splice and shrink operations	
Battery	Li-Ion 10.8 V DC, 48 Wh, 4400 mAh, exchangeable	
AC Adapter	Input: AC 100 – 240 V, 50/60 Hz, Max. 1,5 A Output: 15 V DC, 4,3 A	
Charging time (up to 100%)	≤ 4 hours	
Operating temperature	- 20°C - + 55°C	
Storage temperature	- 40°C - + 70°C	
Humidity	≤ 95% (non-condensing)	
Possible operating altitude	Up to 5000 m	
Wind speed	Up to 15 m/s	
Dimensions	147 x 138 x 135 mm (L x B x H)	
Weight	1.85 kg (incl. battery)	
Tripod socket	1/4"	
Manual (EN, DE)	included	



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SCOPE OF DELIVERY

- CFS-100 splicer
- pair of electrodes (pre-installed)
- pair of universal fiber retention clamps (4 in 1)
- SOC retention clamp
- SOC shrink oven retention clamp
- Li-Ion battery
- Fiber cleaver OFC-30
- cooling tray for shrink oven
- power adapter + power cord
- micro-USB cable (for data transfer)
- carrying case
- carrying strap for carrying case
- quick start guide
- manual
- calibration certificate
- Maintenance tools

Order information	Article No.
Optical Fusion Splicer High precision core alignment fusion splicer	NP-CFS100
Power Adapter & Power Cord Contains power supply and matching power supply cable (EU)	NP-CFS100_PWRKIT
1 pair of spare electrodes	NP-CFS100_ELEC
Li-Ion replaceable battery Li-Ion 10.8 V DC, 48 Wh, 4400 mAh rechargeable battery with integrated charge level indicator	NP-CFS100_BATTPCK

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