



## Vacuum Fiber Optic Patchcords For Ultra-High Vacuum Applications



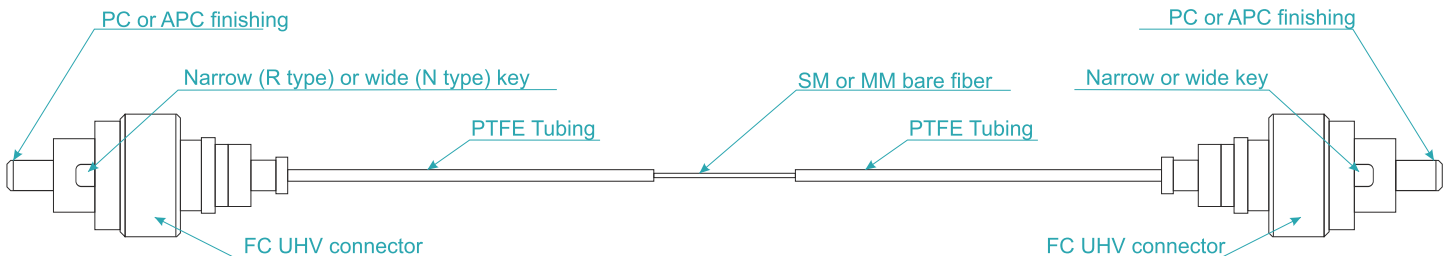
- Excellent optical parameters
- UHV compatible patchcords/adapters
- Precise optical length on request
- UHV FO feedthrough on request
- In SM and MM version

SQS Vláknová optika a.s. is producer of FO patchcords/jumpers suitable for UHV environment and can be used in Vacuum up to  $10^{-10}$  mbar (or better) Process of assembling UHV patchcords needs UHV compatible process of gluing as well as UHV connectors and bare fiber protected by loose tube. All mentioned patchcords can be mated in UHV OFC adapters which are also part of our offer as well as UHV compatible fiber optic feedthroughs with pigtail or adapter interface.

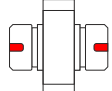
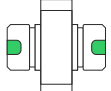
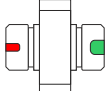
### FO Patchcords - Parameters

	SM	MM
Wavelengths	1310 / 1550 nm	850 / 1310 nm
Insertion loss IL (max/typ):	0,3 / 0,22 dB	0,3 / 0,2 dB
Return loss (UPC) IL (min/typ):	> 55 / > 50 dB	> 25 dB / > 40 dB
Return loss (APC) IL (min/typ):	> 68 / > 60 dB	NA
Repeatability - 500 matings:	+/- 0,1 dB	+/- 0,1 dB
Core/cladding/coating	9/125/155 polyimide (G.652D)	50/125/155 polyimide (OM2)
Connector	FC/PC or APC (N or R type)	FC/PC (N or R type)
Connector - material	Stainless steel (304L/1,4307)	Stainless steel (304L/1,4307)
Ferrule - material	Zirconia ferrule	Zirconia ferrule
Fiber protection	Polyimide or PTFE or steel tube	Polyimide or PTFE or steel tube
Operating temperature	-40 +85 °C (180°C on request)	-40 +85 °C (180°C request)

### UHV patchcord with loose tube protection behind connectors



### The Adapter Design

Adapter Interface for conn.	FC/PC or FC/APC	narrow - narrow key	wide - wide key	narrow - wide key
Key Hole	N type ( 2,15 - 2,20 mm ) or R type ( 2,05 - 2,10 mm )			
Material - body	Stainless steel ( 1,4301 )			
Material - sleeve	Zirconia sleeve			
Flange	Full flange (rectangle)			
Laser marking of flange	On request			

FC/PC and APC UHV Connectors



FC/PC UHV Connectors with FC UHV Adapter



UHV FO feedthrough with 19 channels

