

Fiber-optic Switch (FOS)

FOS-2-Inline



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The fiber-optic switches (FOS) from Avantes are the ideal accessory to facilitate automatic shuttering of a spectrometer or to correct for light source drift. Automatic shuttering can be achieved with the FOS-1-Inline while light source drift correction requires the FOS-2-Inline. Both FOS designs can either be used automatically or operated electronically via a TTL pulse from an external source or AvaSpec spectrometer.

The FOS is coupled in the optical path between two SMA terminated fibers and features it two or four COL-UV/VIS collimating lenses (UV/VIS/NIR) and a filter holder for filters that are up to 5 mm thick. TTL signals can be provided by an external device or by an AvaSpec spectrometer connected through a cable (IC-DB26-2), ordered separately.

AvaSoft-Full spectroscopy software supports light source drift correction for a setup where one of the FOS-2-inline channels is connected to a reference measurement (such as a white tile, cuvette with blank) and the other channel is connected to the actual measurement. This provides for periodic switching to the reference channel and this updated reference data is used to correct the data measured at the sample channel.

A PS-24V/1.25A 24 volt DC power adapter is required for either of the FOS-series fiber-optic switches.

Technical Data

	FOS-1-inline	FOS-2-inline
Wavelength range	200-2500 nm	
Fiber connection	2 SMA-905 connectors, incl. 2 COL-UV/VIS collimating lenses	4 SMA-905 connectors, incl. 4 COL-UV/VIS collimating lenses
Filter slit	Max. 5 mm wide	
Shutter frequency	Max. 40 Hz	
Shutter delay	10 ms	
Shutter attenuation	60 dB	
Material	Black anodized aluminum	
Dimensions	130 x 65 x 65 mm	
Lifetime shutter	1.000.000 cycles (typical)	

Ordering Information

FOS-1-Inline	• In-line Fiber-optic Switch, one optical path, incl. 2 COL-UV/VIS
IC-DB26-2	• Interface cable AvaSpec-USB2 platform to FOS-1-inline, 2 m
FOS-2-Inline	• In-line Fiber-optic Switch, 2 optical path, incl. 4 COL-UV/VIS
IC-DB26-FOS2-2	• Interface Y-cable AvaSpec-USB2 platform to FOS-2 and AvaLight-S, 2 m
PS-24V/1.25A	• Power supply 100-240VAC/24VDC, 1.25A, necessary for FOS

Three years
limited warranty on all
Avantes spectrometers,
light sources and accessories