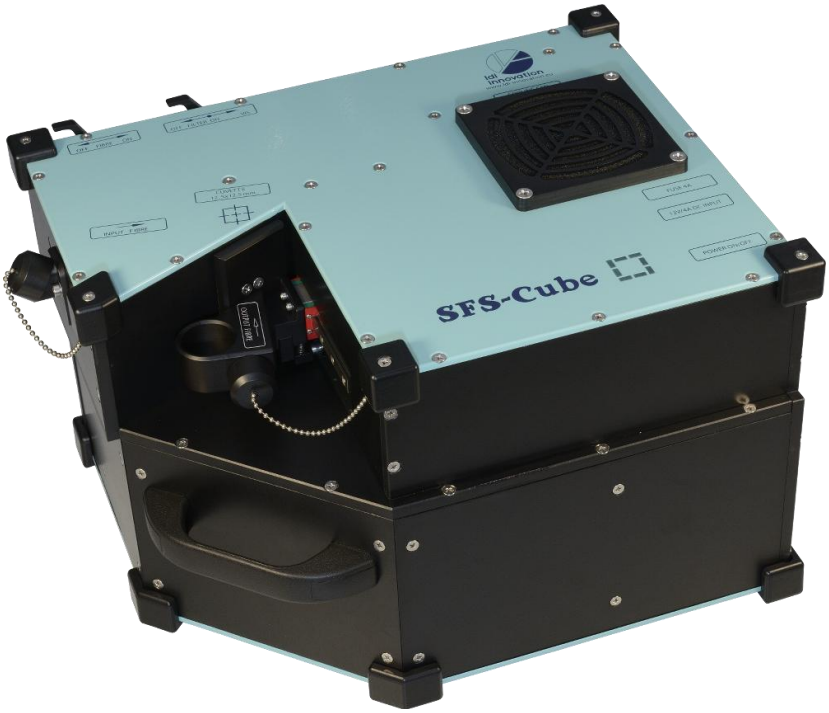
SFS CUBE DATASHEET



1. GENERAL DESCRIPTION

The optical system of SFS Cube is aimed to induce the fluorescence of the sample by monochromatic light and record the spectrum of fluorescence. The system consists of pulsed xenon arc lamp, two monochromator chambers, one for excitation and one for fluorescence registration, the fiber-optic Y-bundle attachment and the optoelectronic detector (PMT).

The additional optical channel is used to measure the light flux of the Xe-lamp at each excitation wavelength. This channel is named the Reference channel.

The excitation and registration/emission gratings are scanned to change the excitation wavelength step by step and to register the fluorescence spectra at each wavelength. The spectrum that is recorded by the photomultiplier tube contains the various scattering signals of the excitation light and the fluorescence of the sample.

2. TECHNICAL SPECIFICATION

SFS CUBE HARDWARE SPECS

Accuracy	Better than 10%
Response time	3 minutes
Light source	Pulsed Xenon lamp, 20 Watt
Spectral unit	Scanning excitation / emission monochromators
Spectral range	220 – 640 nm excitation; 220 – 670 nm emission
Detector type	Photo Multiplier Tube
Sample cell	standard cuvette or front-face fiber
Cell volume	~4 ml, 10mm x 10mm x 44mm internal dimension
PC connection	WiFi, may need special USB adapter
Control unit	Built-in processor controller
Remote control	WiFi
Device calibration	Automatic, only reference-channel measurement
Voltage	100-240V, 50-60Hz
Power consumption	30 W
Dimensions (HxLxW)	190 x 233 x 300 mm plus 2m fiber-optic Y-bundle attachment
Weight	7.7 kg

SAMPLE CONDITION:

Temperature
15 – 35°C
Volume
~4ml

SOFTWARE

Operating system
Windows 7/8/10
Data storage
Local file system

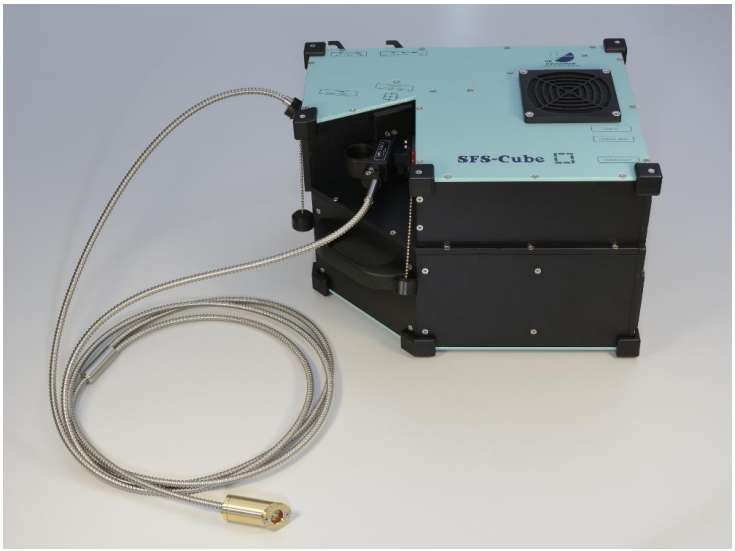


Fig 1. SFS Cube with installed fibre-optic bundles.