

## Vacuum Feed-Throughs V-SF

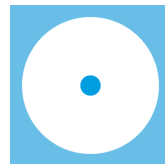
with single-mode fiber cable



### FEATURES

Vacuum flange type SF with integrated fiber cable

- Screw-type flange M12 x 0.75 mm (nickel silver)
- Suitable for vacuums down to  $10^{-7}$  mbar
- Integrated single-mode fiber cable SMC
- Fiber cables with cut-off wavelengths 360 nm - 1550 nm
- Different connector types



## DESCRIPTION

The fiber cables with vacuum feed-through made by Schäfter+Kirchhoff are equipped with single-mode fiber cables for wavelengths from 360 to 1550 nm. The feed-throughs are suitable for vacuums down to  $10^{-7}$  mbar and are supplied with a screw-type flange with thread type M12 x 0.75 mm (nickel silver). It is sealed by a Viton O-ring sealing. Maximum temperature range is -10 °C - 70 °C.

### End-to-end fiber cable

All vacuum feed-throughs are supplied with a non-exchangable, continuous, end-to-end fiber cable. That means there is no additional fiber connection (mating) at the vacuum flange.

The benefit is no additional coupling losses due to mating (especially important for transmitting short wavelengths)

### Single-mode fiber cable

On the vacuum side, the fiber cables are equipped with Ø 900 µm buffer made of Hytrel or Nylon. The part of the fiber cable outside the vacuum, has a Ø 3 mm cable with Kevlar strain-relief with bend protection both at the fiber connector and the flange.

The single-mode fiber cables can be equipped with [end caps](#) for reducing the power density at the fiber end-faces.

As an option the connector can be made of [amagnetic Titanium](#) (connector type FC only).

The connector outside the vacuum can be [core-aligned](#) as an option.

Please refer to the individual [SMC fiber cable pages](#) for all fiber options. The connector types are described in detail [here](#).

### How to order

For a specific feed-through please [contact](#) Schäfter+Kirchhoff. We additionally need information on:

- Fiber type
- Cable length inside / outside the vacuum
- Connector type inside / outside the vacuum

An example configuration can be found [here](#).

## DOWNLOADS



[130810090601.pdf \(Dimensional drawing\)](#)

## ACCESSORIES

### POLARIZATION ANALYZER SK010PA

Measurement tool for coupling into polarization-maintaining fiber cables

## RELATED PRODUCTS

### FIBER CABLES SMC

Single-mode fiber cables

### FIBER COLLIMATOR SERIES 60FC

for collimating radiation exiting an optical fiber or as an incoupler

### LASER BEAM COUPLERS SERIES 60SMS

for coupling into single-mode and polarization-maintaining fiber cables

This is a printout of the page <https://sukhamburg.com/products/fiberoptics/fibercable/feedthrough/series/sf-sm.html>  
from 5/7/2024

## CONTACT

**For more information please contact:**

**Schäfter + Kirchhoff GmbH**

**Kieler Str. 212**

**22525 Hamburg**

**Germany**

**Tel: +49 40 85 39 97-0**

**Fax: +49 40 85 39 97-79**

**[info@sukhamburg.de](mailto:info@sukhamburg.de)**

**[www.sukhamburg.com](http://www.sukhamburg.com)**

## LEGAL NOTICE

**Copyright 2020 Schäfter+Kirchhoff GmbH. All rights reserved.**

Text, image, graphic, sound, video and animation files and their arrangement on Schäfter+Kirchhoff GmbH webpages are protected by copyright and other protective laws. The content may not be copied for commercial use or reproduced, modified or used on other websites. [\[more\]](#)