

## Vacuum Feed-Throughs V-KF50

with single fiber cable



### FEATURES

Vacuum flange type KF50 with an integrated fiber cable

- Based on small flange KF50 (stainless steel)
- Suitable for vacuums down to  $10^{-7}$  mbar
- Incorporated a feed-through of type [V-SF-PMC](#), [V-SF-SMC](#), or [V-SF-MMC](#)
- Different connector types

- Multi-mode fiber



## DESCRIPTION

The vacuum feed-throughs made by Schäfter+Kirchhoff are equipped with a single fiber cable. The fiber can be a polarization-maintaining, single-mode or a multimode fiber. The vacuum feed-throughs are suitable for vacuums down to  $10^{-7}$  mbar and are supplied with a small flange KF50 (DIN 28403 and ISO 2861, stainless steel). Maximum temperature range is -10 °C - 70 °C.

The feed-throughs incorporate one feed-through of type [V-SF-PMC](#), [V-SF-SMC](#), or [V-SF-MMC](#).

### End-to-end fiber cable

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

Benefits:

- No additional coupling losses due to mating (especially important for transmitting short wavelengths)
- No reduction in [Polarization Extinction Ratio \(PER\)](#) due to mating

#### Fiber cable

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

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

For single-mode fiber cables, the connector away from the vacuum can be core-aligned as an option.

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

Please refer to the individual [PMC fiber cable pages](#), [SMC fiber cable pages](#), and [MMC 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 types
- Cable lengths inside / outside the vacuum
- Connector types inside / outside the vacuum

The feed-through can be equipped either with four identical or four different fiber cables. An example configuration can be found [here](#).

## RELATED PRODUCTS

<b>FIBER CABLES PMC</b>	Polarization-maintaining fiber cables
<b>FIBER CABLES SMC</b>	Single-mode fiber cables
<b>FIBER CABLES MMC</b>	Multimode fiber cables
<b>VACUUM FEED-THROUGHS V-SF-PMC</b>	with polarization-maintaining fiber cable
<b>VACUUM FEED-THROUGHS V-SF-SMC</b>	with single-mode fiber cable
<b>VACUUM FEED-THROUGHS V-SF-MMC</b>	with multimode fiber cable

This is a printout of the page <https://sukhamburg.com/products/fiberoptics/fibercable/feedthrough/series/kf50/1.html>  
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