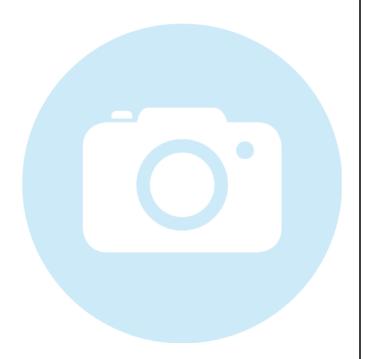
# **Vacuum Feed-Throughs V-KF50**

with two-fold fiber cable



### **FEATURES**

Vacuum flange type KF50 with two integrated fiber cables

- Based on small flange KF50 (stainless steel)
- Suitable for vacuums down to 10<sup>-7</sup> mbar
- Incorporated two single feed-throughs type <u>V-SF-PMC</u>, V-SF-SMC, or V-SF-MMC
- Different connector types
- Multi-mode fiber



## DESCRIPTION

The two-fold vacuum feed-throughs made by Schäfter+Kirchhoff are equipped with two identical or two different fiber cables. The fibers can be polarization-maintaining, single-mode or multimode fibers. The double vacuum feed-throughs are suitable for vacuums down to 10<sup>-7</sup> 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 two single feed-throughs type <u>V-SF-PMC</u>, <u>V-SF-SMC</u>, or

The feed-throughs incorporate two single feed-throughs type <u>V-SF-PMC</u>, <u>V-SF-SMC</u>, or <u>V-SF-MMC</u>.

#### End-to-end fiber cable

All vacuum feed-throughs are supplied with a non-exchangable, continous, 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 <u>Polarization Extinction Ratio (PER)</u> due to mating

#### Fiber cable

On the vacuum side, the fiber cables are equipped with  $\emptyset$  900  $\mu$ m buffer made of Hytrel, Nylon or Tefzel. The parts of the fiber cables outside the vacuum, have a  $\emptyset$  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 <u>amagnetic Titanium</u> (all fiber types, but connector type FC only).

Please refer to the individual <u>PMC fiber cable pages</u>, <u>SMC fiber cable pages</u>, and <u>MMC fiber cable pages</u> for all fiber options. The connector types are described in detail <u>here</u>.

#### How to order

For a specific feed-through please <u>contact</u> 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 two identical or two different fiber cables. An example configuration can be found <u>here</u>.

# **RELATED PRODUCTS**

FIBER CABLES PMC Polarization-maintaining fiber cables

FIBER CABLES SMC Single-mode fiber cables

FIBER CABLES MMC Multimode fiber cables

VACUUM FEED- with polarization-maintaining fiber cable

THROUGHS V-SF-PMC

VACUUM FEED- with single-mode fiber cable

THROUGHS V-SF-SMC

VACUUM FEED- with multimode fiber cable

THROUGHS V-SF-MMC

This is a printout of the page  $\underline{\text{https://sukhamburg.com/products/fiberoptics/fiberoable/feedthrough/series/kf50/2.html}$  from 4/26/2024

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