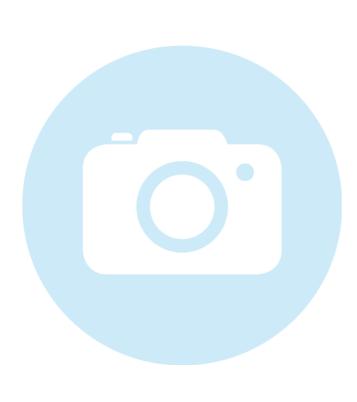
Vacuum Feed-Throughs V-KF50

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 <u>V-SF-PMC</u>, <u>V-SF-SMC</u>, or <u>V-SF-MMC</u>
- 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 <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 µm 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 <u>end caps</u> 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 four identical or four 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- THROUGHS V-SF-PMC	with polarization-maintaining fiber cable
VACUUM FEED- THROUGHS V-SF-SMC	with single-mode fiber cable
VACUUM FEED- THROUGHS V-SF-MMC	with multimode fiber cable

This is a printout of the page <u>https://sukhamburg.com/products/fiberoptics/fibercable/feedthrough/series/kf50/1.html</u> from 4/26/2024

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 www.sukhamburg.com

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