

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^{-7} mbar
- Incorporated two single feed-throughs type [V-SF-PMC](#), [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^{-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 two single feed-throughs 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 two identical or two different fiber cables. An example configuration can be found [here](#).

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 <https://sukhamburg.com/products/fiberoptics/fibercable/feedthrough/series/kf50/2.html>
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

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. [\[more\]](#)