Fiber-Optic Beam Splitters Type FBS

Fiber-optic beam splitters split the radiation guided in a Single-mode fiber into two single-mode fibers.

Fiber-optic beam splitters from Schäfter+Kirchhoff have a splitting ratio up to 1:99 and are provided for wavelengths between 460 and 1500 nm. The bandwidth is within ±1% of the designed wavelength and insertion loss is approximately 1 dB at 460–700 nm and 0.5 dB at 700–1550 nm.

The fiber-optic beam splitters have 3 or 4 ports and are ideal for use in interferometric or other setups. They are available with Ø 3 mm cabling and Kevlar strain-relief or with a Ø 900 μm buffer only.

Th fiber-optic beam splitters are terminated with connectors of type FC-PC, FC-APC (or ST, SMA, E2000 or DIN-AVIO) or core-aligned (<0.5 μm).

Customized products, such as with a different number of output ports, are available on request.

Special Configurations of Fiber-Optic Beam Splitters FBS

Fiber-optic beam splitter FBS with vacuum feed-through.

Schäfter+Kirchhoff also offer fiber-optic beam splitters in direct combination with vacuum feed-throughs (for more details see page 56), that can be attached to any port, as required.

The feed-throughs are suitable for vacuums down to 10⁻⁷ mbar and are supplied with either a small flange KF16 (DIN 28403) (option: KF40/KF50) or a screw-type flange (M12 x 1 mm). The connectors may be of type FC-PC, FC-APC (or ST, SMA, E2000 or DIN-AVIO), although not all of these connectors are suitable for a vacuum.

Please contact Schäfter+Kirchhoff for detailed information.

Fiber-optic beam splitter FBS with casing feed-through CFT.

Fiber-optic beam splitters can also be equipped directly with casing feed-throughs at any port (for more details see page 57).

Inside the casing, the fiber cables are 900μm buffered and, outside the casing, the cable is 3mm in diameter and has Kevlar strain-relief. The connectors can be of type FC-PC, FC-APC (or ST, SMA, E2000 or DIN-AVIO).

Please contact Schäfter+Kirchhoff for detailed information.

Order Options for Fiber-Optic Beam Splitters FBS...

Order Code | FBS - 630 - X - 50/50 - APC/APC - 0 - 100/100
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Cable length in cm (in/ out) | Core Alignment | Fiber connection (in/ out): | Splittings ratio | Number ports: | Nominal wavelength | FSB = fiber optic beam splitter
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 | 0 = standard | APC = FC-APC (8°-angled polish) | | X = 4-Port | | 
 | c = Core Alignment (SMC only) | OPC = FC-PC (0°-polish) | For a connector made of Titanium (amagnetic, page 51) add Ti | Y = 3-Port | 

Following connector types are also available:

AVIO-APC = DIN AVIO (8°-angled polish)
AVIO = DIN AVIO (0°-polish)
E2000-APC = E2000 (8°-angled polish)
E2000 = E2000 (0°-polish)
ST = ST (0°-polish)
SMA = F-SMA (0°-polish)

Please contact Schäfter+Kirchhoff for other fiber-optic beam splitter requirements.