60FC-4-M12-10-Di

Receptacle for fiber connectors type FCP8

FEATURES

The fiber collimator is designed for collimating radiation exiting from an optical fiber cable or used in reverse for coupling a beam into an optical fiber cable.

- Focal length 12 mm
- Optics type: Doublet optics, Monochromatic
- AR-Coating: 630 - 980 nm
- FCP8 type receptacle (APC):
- Front connector accepts attachment optics
- Compact Ø 12 mm housing

DESCRIPTION

The fiber collimators series 60FC is designed for collimating radiation exiting optical fiber cables with high pointing stability. They can also be used in reverse-mode as fiber incouplers. They are suitable for single-mode and polarization-maintaining fiber cables leading to collimated beams with a Gaussian intensity profile. Please note that for multimode collimation the intensity profile is not Gaussian and depends on certain fiber and radiation properties.

The features of the coupler type 60FC include:

Optics

The monochromat with focal length 12 mm is designed for collimating single wavelengths. It is AR-coated from 630 - 980 nm. It is corrected for spherical aberrations and designed in such a way that it leads to a diffraction-limited beam with an $M^2 < 1.05$. The focus position varies strongly with wavelength so that the collimator has to be recollimated after any changes to the wavelength. It is not suitable for UHV applications.

Adjustment of focus
The distance between fiber end-face and collimating optics is adjusted by means of an eccentric key. The lens does not rotate when adjusting the focus. The final focus setting is locked by means of two radially arranged clamping screws. Additionally attachment optics of series 60FC can be mounted to the front of the collimator.

Optimum lens performance
The angled polish of connectors of type APC is considered by a pre-angled mechanical coupling axis that compensates the beam deflection and you can use the lens centrically. This minimizes aberrations simply resulting from a non-ideal beam path through the lens.

Connector Type
The fiber coupler has a receptacle of type FCP8

Material
The fiber collimator type 60FC is made from nickel silver (standard)

Mounting
The collimator can be placed into a standard mirror mount using the corresponding adapters.

TECHNICAL DATA

60FC-4-M12-10-Di

Type	60FC
Order Code	60FC-4-M12-10-Di
Focal lengths	12 mm
AR coating	10
Wavelength range	630 - 980 nm
Lens type	Doublet optic
Correction	Monochromatic
Numerical Aperure	0.23
Clear aperture	4.5 mm
Connector type	FCP8
Outer diameter	Ø 12 mm
Tilt adjustment	No
Front fitting	Ø 8 mm
Housing Material	Nickel silever
Weight	
UHV compatible	No
Suitable for multimode	Yes

Note

DOWNLOADS

970920520561_kuz.pdf (Dimensional drawing)

Coating-1000-25.pdf (Coating curve)

ACCESSORIES

POLARIZATION ANALYZER SK010PA	Measurement tool for coupling into polarization-maintaining fiber cables
ATTACHMENT OPTICS SERIES 5	to attach in the front of collimators with system mount Ø 8 mm
9D-12	Screwdriver WS 1.2
60EX-5	Eccentric key with a stroke of ± 1.0 mm.

RELATED PRODUCTS

FIBER COLLIMATOR SERIES 60FC	for collimating radiation exiting an optical fiber or as an incoupler

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