60FC-4-S6-49-XV

UV Fiber collimator with bore hole for flushing



FEATURES

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

- Focal length 6 mm
- Optics type: Singlet lens 'fused silica'
- AR-Coating: 250 420 nm
- Bore hole for flushing purposes
- Inclined coupling axis, FC-APC connection
- Front connector accepts attachment optics
- Compact Ø 12 mm housing

DESCRIPTION

These fiber collimators are a specially modified version of the series <u>60FC</u> fiber collimators. They additionally have a radially arranged bore hole for flushing purposes. The possibility of flushing these fiber collimators makes them suitable for UV applications. (Reference: Marciniak et al., arXiv:1704.05879)

Optics for the UV

Unlike the standard series 60FC fiber collimators this series is offered with fused silica lenses which are suitable for wavelengths starting from 250 nm. Since these are plano convex lenses, they are diffraction-limited for fibers with an $NA_e^2 < 0.04$ only. All lenses are AR-coated.

Adjustment of focus

Such as with the standard series <u>60FC</u> fiber collimators, the distance between fiber endface 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.

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

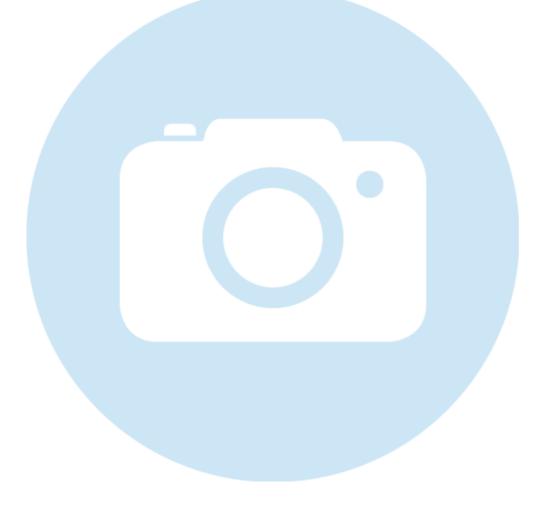
The fiber collimator can be equipped with FC PC or FC APC <u>receptacles</u>. the fiber receptacle has an additional grub screw to increase pointing stability.

Material

The fiber collimators are available in nickel silver.

Mounting

There are special <u>adapter rings</u> with outer diameter \emptyset 25 mm e.g. for use with standard kinematic mirror mount or with system mount \emptyset 19.5 mm with a bore hole matching the bore hole of the fiber collimator. A thread allows for connecting a flush nozzle.



TECHNICAL DATA

60FC-4-S6-49-XV

Series	60FC-XV
Order Code	60FC-4-S6-49-XV
Focal length	6 mm
AR coating	49
Wavelength range	250 - 420 nm



DATA SHEET

Lens Type		Singlet optics (bi-convex)
		'fused silica'
Correction		No*
Numerical Apertu	re*	0.4
Clear aperture		4.8 mm
Connector type		FC-APC
Outer Diameter		Ø 25 mm
Length		31 mm
Tilt adjustment		No
Front fitting		Ø 8 mm
Housing material		Nickel silver
Weight		22 g
UHV compatible		No
Suitable for multimode Yes		
*	Diffraction limited up to an effective numerical aperture NA 0.04 only	

DOWNLOADS



970920520600.pdf (Dimensional drawing)



Adjustment_60FC.pdf (Manual)

ACCESSORIES

ADAPTERS FOR 60FC-...-XV for \emptyset 12 mm fiber collimators, with bore hole and thread for flushing nozzle

RELATED PRODUCTS

 PURGE FIBER
 Special series with bore hole for purging

 COLLIMATOR 60FC-T XV

PURGE FIBER COLLIMATOR 60FC-XV Special series with bore hole for purging



DATA SHEET

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