

## 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 [60FC](#) 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 [60FC](#) fiber collimators, 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.

### 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 centrally. 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 [receptacles](#). 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 [adapter rings](#) with outer diameter Ø 25 mm e.g. for use with standard kinematic mirror mount or with system mount Ø 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

Lens Type	Singlet optics (bi-convex)
	'fused silica'
Correction	No*
Numerical Aperture*	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 Ø 12 mm fiber collimators, with bore hole and thread for flushing nozzle

## RELATED PRODUCTS

### PURGE FIBER COLLIMATOR 60FC-T- XV

Special series with bore hole for purging

### PURGE FIBER COLLIMATOR 60FC-XV

Special series with bore hole for purging

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