

# Refocusing Objectives for Mid-IR Fiber Cables

**MID-IR Refocusing Objectives (FORO)** are designed to refocus the beam from the IR-fiber or into the fiber. The housing of the objective easily connects to fiber optic cables either with FC/PC or with SMA connectors and enables the alignment of the lens position along the Z-axis.

Mid-IR Refocusing Objectives are available with anti-reflection (AR) coating for two spectral ranges:

**3-5 $\mu$ m** – for chalcogenide fiber cables.

**8-12 $\mu$ m** – for polycrystalline fiber cables.

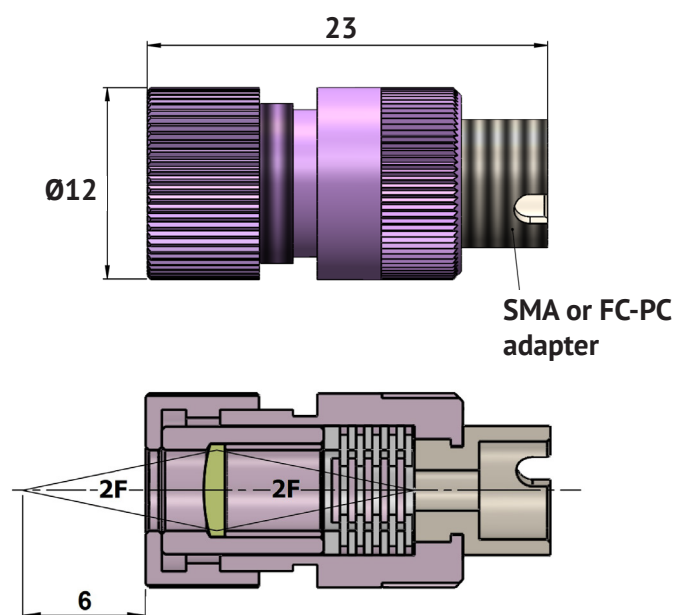
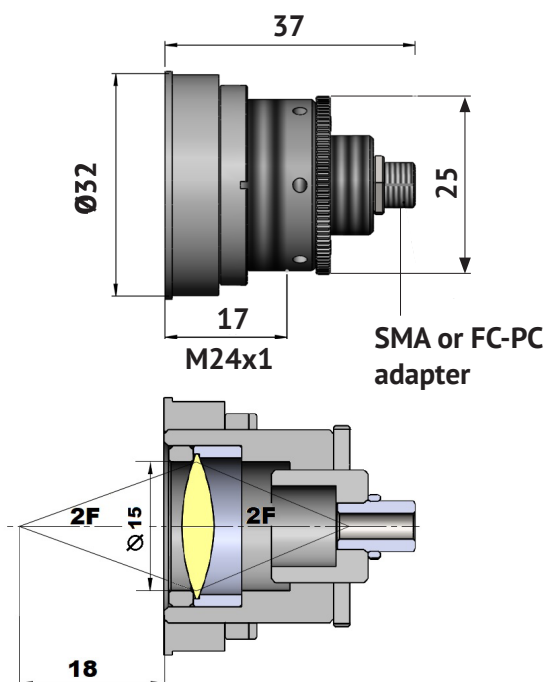
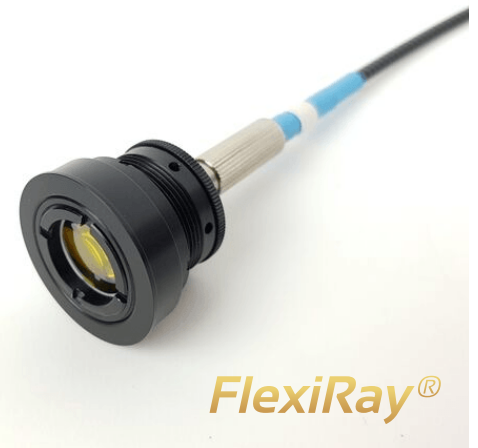
We offer two types of MID-IR fiber refocusing objectives with following lens diameters:

Ø 15mm - FORO-L

Ø 5mm - FORO-S

## Features:

- ✓ Compatible with SMA- or FC-terminated fiber cables
- ✓ Pupil diameter 15mm (FORO-L) or 5 mm (FORO-S)
- ✓ Thread build-in in your optical system
- ✓ Non-Magnetic Aluminium Housing



UV

VIS

NIR

MIR

Working Range



2-17  $\mu$ m

## Applications

✓ Refocusing the beam out of the fiber or, used in reverse, into the fiber

✓ Fiber end/bundle imaging to the detector

## Specification for refocusing objectives

				
Code	<b>FORO-L-3/5-F10</b>	<b>FORO-L-8/12-F10</b>	<b>FORO-S-3/5-F5</b>	<b>FORO-S-8/12-F5</b>
ZnSe Lens	Double-convex Ø 15	Double-convex Ø 15	Plano-convex Ø 5	Plano-convex Ø 5
AR Spectral Range	3-5 µm	8-12 µm	3-5 µm	8-12 µm
Lens Focal Distance	10 mm	10 mm	5 mm	5 mm
Numerical Aperature	0,35	0,35	0,25	0,25
Outer Diameter	25 mm	25 mm	12 mm	12 mm
Connecting Thread	M24x1	M24x1	no	no
Length (approx.)	37 mm	37 mm	23 mm	23 mm
Alignment Options	Z-axis positioning	Z-axis positioning	Z-axis positioning	Z-axis positioning
SMA Adapter	YES	YES	YES	YES
FC/PC Adapter	On Request	On Request	On Request	On Request
Housing	Aluminium Black anodizing	Aluminium Black anodizing	Aluminium Magenta anodizing	Aluminium Magenta anodizing

