

SAMPLER ACCESSORY

- Working Distance of 146 mm
- Designed for 2.0 - 5.0 μm Wavelength
- 1 - 2 mm Collection Spot Size
- SMA-905 Fiber Connector



THE TECHNOLOGY

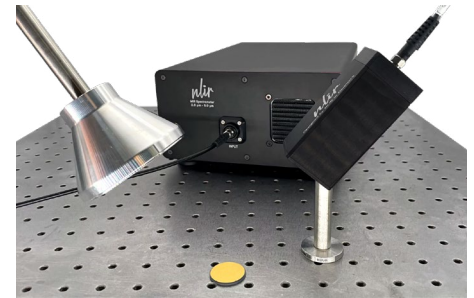
ACCESSORY | SAMPLER

NLIR's SAMPLER Accessory is an effective tool designed to capture light from a specific point and couple it into a fiber. Constructed with two CaF₂ lenses it is optimized for the 2.0 – 5.0 μm wavelength range.

The working distance of 146 mm ensures a balance between proximity – to maximize light

capture – and sufficient distance to accommodate dynamic samples safely. This working distance can be adjusted upon request.

The SAMPLER Accessory is ideally suited for samples exhibiting any degree of diffuse reflectance and works exceptionally well with a large free-space light source ■



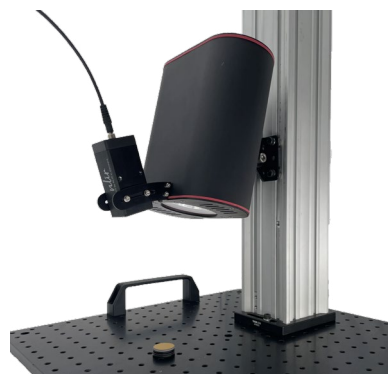
DETAILS



The SAMPLER Accessory collects light from the red spot on the translation stage.

| SAMPLER Accessory | |
|-----------------------------------|-------------------------|
| Optical Bandwidth | 2.0 – 5.0 μm |
| Collection Spot Size ¹ | 1 – 2 mm |
| Working Distance ² | 146 mm |
| Optical Output | SMA-905 Fiber Connector |
| Maximum NA Supported | 0.3 |
| Mount Threads | M3 and M4 |
| Measurements (L × W × H) | 80 mm × 36 mm × 36 mm |
| Weight | 210 g |

¹ Depends on fiber core size
² Custom distancing available upon request



NLIR's AURALIS Light Source illuminates the gold target on the base plate, while the SAMPLER Accessory captures the light reflected from the gold target.



Looking to collect collimated light instead of from a point? Have a look at the NLIR COLLIMATOR Accessory.

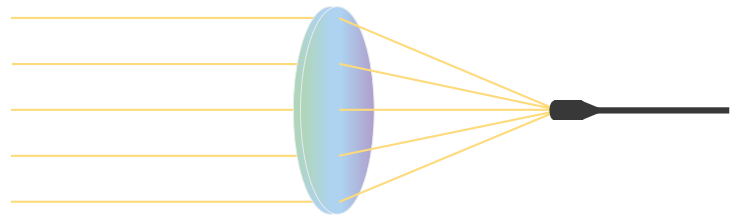
[SEE COLLIMATOR ACCESSORY](#)

WORKING PRINCIPLE AND TECH DRAWINGS

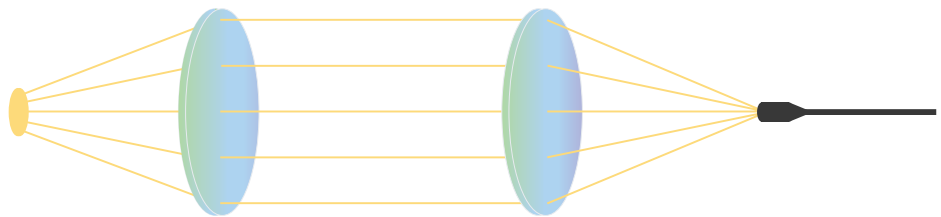
SAMPLER VS. COLLIMATER

NLIR's SAMPLER Accessory is designed for efficient light collection and fiber coupling in the 2.0 – 5.0 μm mid-infrared range. Unlike NLIR's COLLIMATOR Accessory, which is designed to couple collimated light into a fiber, the SAMPLER Accessory is optimized for collecting light from a point source.

It uses a two-lens system (CaF₂) to first collimate the divergent light before focusing it into a fiber. This makes it ideal for capturing light from localized sources or diffuse targets where direct fiber coupling is not possible.



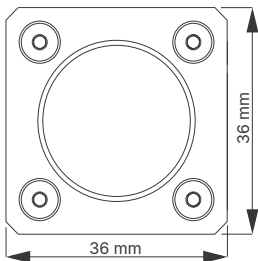
Working principle of the COLLIMATOR Accessory.



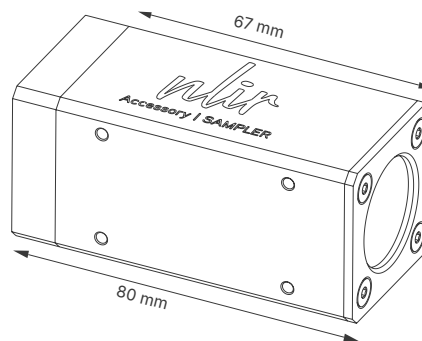
Working principle of the SAMPLER Accessory.

TECH DRAWINGS

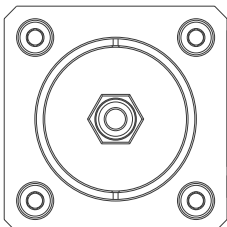
FRONT



SIDE



BACK



DESCRIPTION

The drawings provide detailed dimensions and an overview of NLIR's SAMPLER Accessory design.

NLIR's SAMPLER Accessory is designed for easy mounting with threaded holes on either side. It features M3 and M4 threads, allowing secure attachment to compatible fixtures or mounts. These threaded holes ensure precise alignment and stable positioning during use, providing flexibility for integration into various optical setups.

Note that all measurements are in mm ■