nlir

MEMBER OF THE NYNOMIC GROUP

PRECISION
INTERFACE

- 2.0 - 5.0 µm Bandwith
- > 5 % Transmission
- Working Distance of 22 mm
- SMA-905 Fiber Connectors

Contact us: info@nlir.com +45 7174 7870

THE TECHNOLOGY

INTERFACE | PRECISION

The PRECISION Interface is designed for highly accurate reflection measurements on small, well-defined areas of specularly reflecting surfaces. It enables measurements on areas smaller than 500 µm, with a working distance of 22 mm.

Developed to work together with the FIBER Light Source and MIDWAVE Spectrometer, the PRECISION Interface allows for rapid reflection measurements, completing analyses in less than 100 ms. The light is brought from the NLIR FIBER Light Source by fiber to the sample and returned to the NLIR MIDWAVE Spectrometer by a fiber. This results in a fast and sensitive REFLECTION Measurement System.

For measurements on diffusely reflecting surfaces, the TOUCH Interface or REFLECTION Interface are more suitable alternatives ■

DETAILS

The PRECISION Interface is designed to work together with the FIBER Light Source and MIDWAVE spectrometer.

The working distance of the PRECISION Interface is 22 mm.

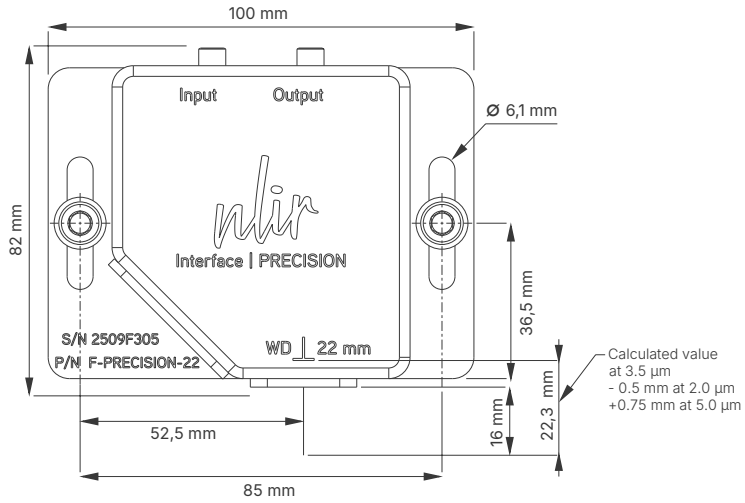
	PRECISION Interface
Optical Bandwith	2.0 – 5.0 µm
Working Distance	22 mm
Transmission[1]	> 5 %
Focus Spot Size[2]	< 500 µm
Optical Connectors	SMA-905 Fiber Connectors
Measurements (L × W × H)	33 × 100 × 82 mm
Weight	385 g

[1] By reflection on a silver coated mirror
[2] Depends on fiber core size

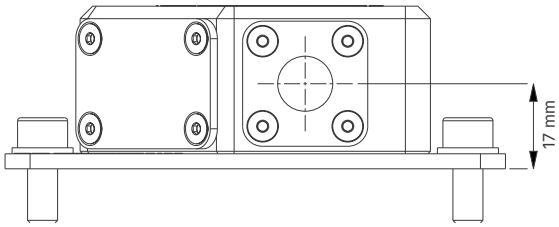
TECH DRAWINGS AND MEASUREMENT EXAMPLE

TECH DRAWINGS

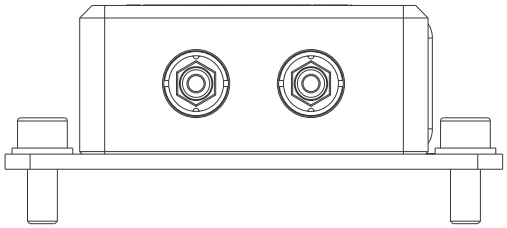
FRONT



BOTTOM



TOP



DESCRIPTION

The drawings provide detailed dimensions and an overview of NLIR's PRECISION Interface design.

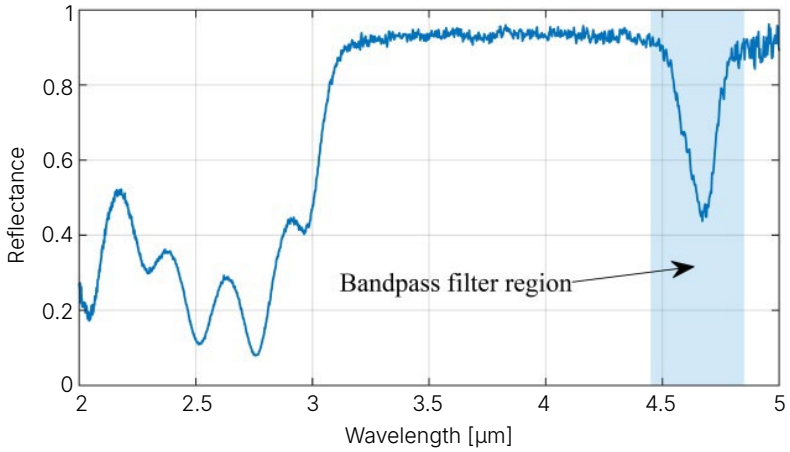
The PRECISION Interface is easily mounted using two M6 screws.

REFLECTION MEASUREMENT OF AN INTEGRATED BANDPASS FILTER

We have demonstrated the effectiveness of our PRECISION Interface by measuring the reflectance from an integrated bandpass filter with a measurement area of only 400 µm in diameter.

Using a gold mirror as a reference, we observed a dip in reflectance at approximately 4 - 7 µm, corresponding to the center of the bandpass filter.

This high quality spectrum illustrates the probe's ability to obtain accurate measurements even from very small samples in very little time ■



Raw data (no smoothing, post processing or pixel binning) from a reflection measurement of an integrated bandpass filter. The blue shaded region marks the spectral band of the filter. The total measurement time was 100 ms.