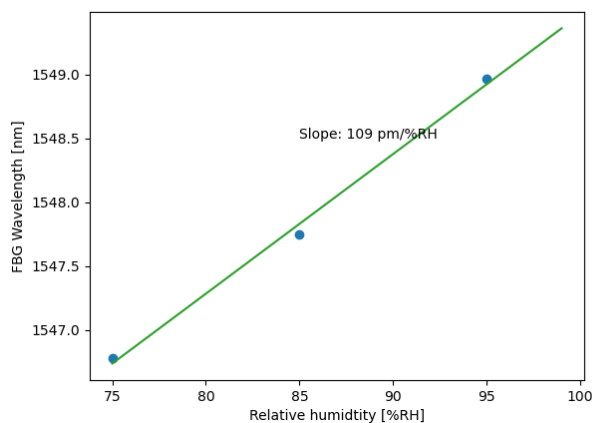


SHUTE Sensing Solutions A/S was founded in 2015 at the Department of Photonics Engineering at the Technical University of Denmark (DTU).

SHUTE has developed a novel and unique polymer optical fiber (POF) sensor system, which enables real-time monitoring of **strain/stress**, **humidity**, **temperature** and vibrations in points along a hair-thin optical fiber. Hence the name SHUTE.

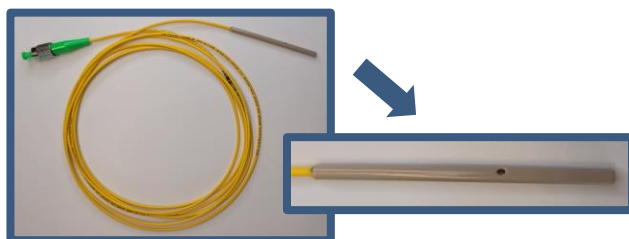
### SHUTE 1550nm POF Humidity Sensor

SHUTE has patented the world's first commercial POF sensor system, which precisely measures humidity and can survive even in 100% RH for a longer period of time. Up until today this technology has only been available for 850nm interrogators. We now introduce the 1550nm POF Humidity Sensor, for usage together with a C-band interrogator.

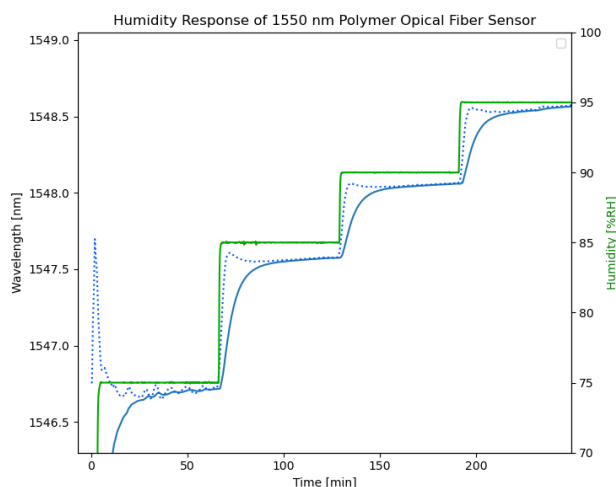


The plot on the left shows the linear relationship between nm change and RH%.

The sensor comes with a choice of housing to protect the sensor but can also be used without for quicker response time. For added operating length a silica optical fiber extension can be used.



- PMMA polymer optical fiber, single mode
- FC/APC optical fiber connector
- PEEK or stainless steel housing
- Nylon fiber insulation



This left plot shows the characterization of a PMMA fiber sensor (no Housing), in a 20°C temperature-controlled environment. With simple signal processing humidity level can be predicted in minutes (dotted line).

SHUTE sensors has been tested in different composites like concrete & MGO sidings and for monitoring humidity in oil, etc.

- Center wavelength: Ca. 1547nm
- Operating range: 0-100%RH, tested up to 50°C
- Physical dimensions sensor: L: 2.5m, Ø: 3.2mm
- Physical dimensions sensor house: L: 60mm, Ø: 3.2mm

**For more information visit [www.shute.dk](http://www.shute.dk) or feel free to call us on +45 2338 6728 to discuss how SHUTE technology can assist you in optimizing your sensing needs.**