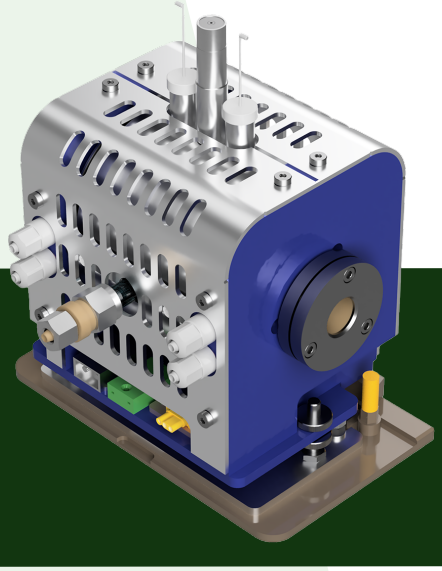


MEASLINE
ADVANCED SOLUTIONS

The HT-IRS 02 Reactor

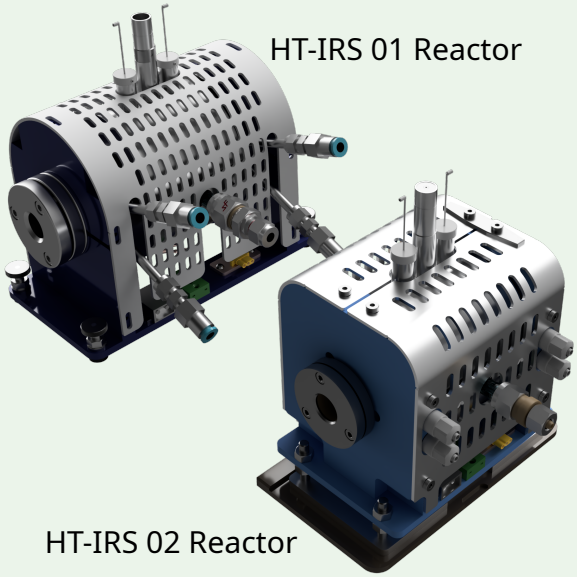
Device fully compatible with Bruker spectrometers

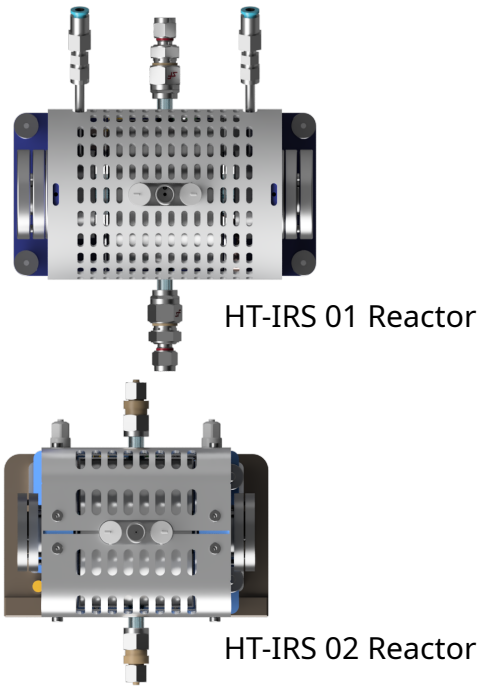
The HT-IRS 02 reactor is designed for use with infrared spectrometers operating in transmission mode.

It is fully compatible with Bruker IR spectrometers and extends the capabilities of IR spectroscopy. Optimized for optical spectroscopy in transmission mode, the reactor features a unique design that allows integration with complementary analytical techniques such as mass spectrometry, gas chromatography, and others.

Compatibility with Bruker spectrometers- implemented modifications:

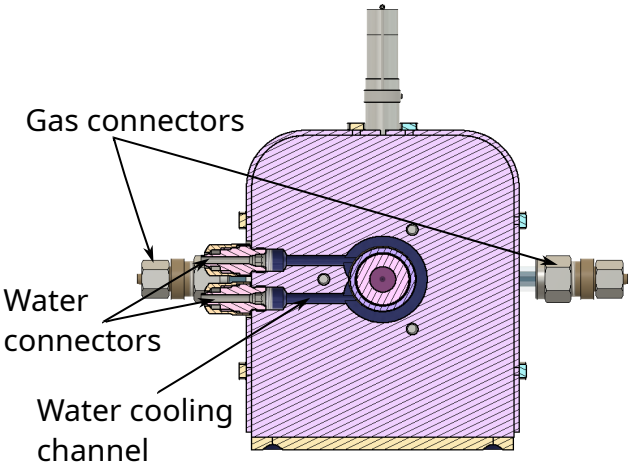
➤ Reduced overall reactor dimensions

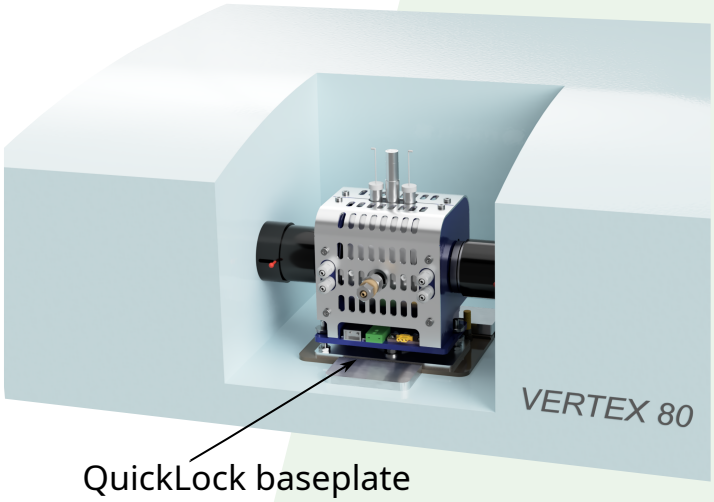




- Minimized dead volume
- Capability for cooling the reactor using for example liquid nitrogen.
- Effective cooling of the reactor casing

- Compatible with Bruker QuickLock baseplate for easier integration and positioning into the spectrometer.





Plasma Activation Module

The plasma activation module enhances the functionality of the reactor by enabling in-situ low-temperature plasma generation. It supports the following applications:



- Surface activation
- Cleaning of samples' surface
- Plasma-assisted reactions with ionized gases

Plasma is generated directly inside the reaction chamber by introducing a plasma-forming gas under a low vacuum. The electrodes responsible for plasma generation are connected to an AC power supply but are fully isolated from the chamber interior by quartz walls, preventing direct contact between the plasma and electrode materials.

This unique configuration enables:

- Plasma treatment without interrupting reactor heating or reagent flow,
- Continuous exposure of the sample to reactive gases during plasma activation,
- Stable control of internal atmosphere and reaction products,
- Elimination of the risk of sample contamination by electrode materials.