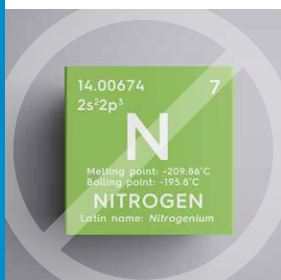


## Improve Reaction Understanding with Real-Time *In Situ* Analysis



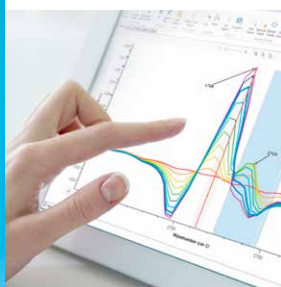
### No More Liquid Nitrogen

ReactIR 702L uses solid-state cooling technology to deliver best-in-class performance without the need for liquid nitrogen. By eliminating hazardous experimental setup and repetitive Dewar refills, scientists can monitor chemistry with ease over extended periods.



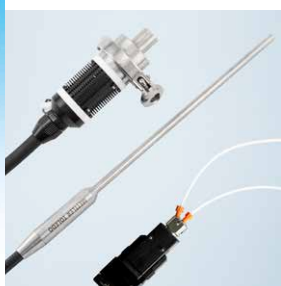
### Small, Portable, Flexible

Small, stackable units save valuable space in the fume hood and offer flexibility to deploy ReactIR in various locations across the lab. An "always on" detector reduces setup time and enables scientists to start collecting data with confidence at a moment's notice.



### One Click Analytics™

Designed specifically for time-resolved reaction analysis iC IR combines a peak picking algorithm with functional group intelligence to drastically reduce analysis time. Users combine knowledge of their chemistry with an automated data analysis workflow to ensure correct interpretation for every experiment.



### Study all Reactions

Probe- and flow-based sampling technologies enable scientists to study liquid and gas phase chemistry in batch or continuous setups. Fit-for-purpose materials of construction make data collection straightforward in acidic and corrosive environments across a wide range of temperatures and pressures.



### ReactIR™ 702L

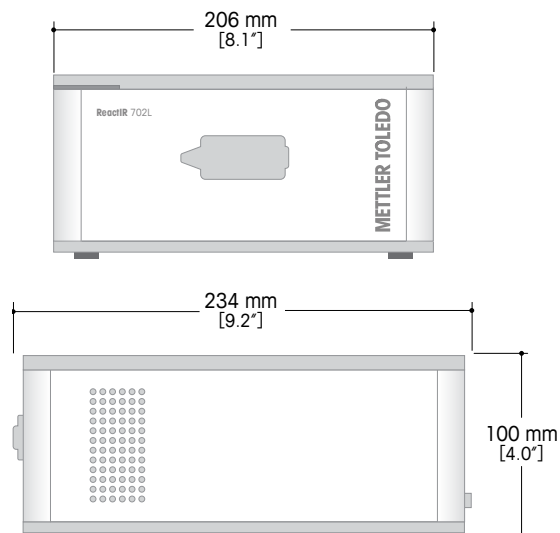
ReactIR enables scientists to study reaction progression over time, providing highly specific information about initiation, endpoint, conversion, kinetics, mechanism, and pathway. A real-time, *in situ* mid-infrared system, ReactIR directly follows the concentration of key reaction species as they change during the course of the reaction. This provides in-depth understanding for scientists as they improve the research and development of chemical compounds, synthetic routes, and chemical processes.

# Improve Reaction Understanding with Real-Time *In Situ* Analysis

## Technical Data




<b>Optical Range</b>	4000 cm <sup>-1</sup> to 800 cm <sup>-1</sup>
<b>Probe Wetted Materials</b>	C-22, Gold, PTFE, Diamond, Silicon
<b>Probe Sensor</b>	DiComp™ or SiComp™
<b>Probe Tip Temp Range</b>	-80 °C to 300 °C* (see below)
<b>Probe Pressure Rating</b>	Vacuum to 200 barg* (see below)
<b>Field Unit Weight</b>	4.2 kg [9.2 lb]
<b>Field Unit Temp Range</b>	19 °C to 31 °C (ambient operation)
<b>Power</b>	100-240 VAC, 50/60Hz, 0.6A (max)
<b>Purge</b>	No purge required
<b>Detector</b>	TE MCT (no liquid nitrogen required)
<b>Laser Classification</b>	Class 1 Laser Product; Compliant with 21 CFR 1040.10 and 1040.11

## Base Unit Dimensions



## Sampling Technology

A wide range of sampling technologies are available including FiberConduit probes, flow cells, gas cells and specialized probes for high pressure and temperature reactors.

	Fiber Length			Sensor		Probe Length			Temperature Range	Pressure Limit
	1.0 m	1.5 m	2.0 m	DiComp	SiComp	203 mm	305 mm	457 mm		
 DST Series 9.5 mm AgX FiberConduit (also available in 3m and 4m DiComp configurations)		•	•	•	•		•	•	-80 °C to 180 °C	69 barg
DST Series 6.3 mm AgX FiberConduit		•	•	•	•	•	•		-80 °C to 180 °C	69 barg
 25.4 mm Sentinel™ (FiberConduit)	•	•	•			28.6 mm			-80 °C to 300 °C	200 barg
 DS Micro Flow Cell				•	•				Ambient to 60 °C	35 barg

\*Contact METTLER TOLEDO for information about special needs including custom sizing, extreme-temperature, high-pressure or hazardous area applications.

[www.mt.com/ReactIR](http://www.mt.com/ReactIR)

For more information

### METTLER TOLEDO Group

Automated Reactors and *In Situ* Analysis  
Local contact: [www.mt.com/contacts](http://www.mt.com/contacts)

Subject to technical changes

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