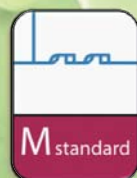


## Smart, safe and clean chemistry

# Microreactors



### Modular Functional Design



Inlet & Mixer



Long channel



Short channel

The Microreactors are designed by combining these functional compartments. Several microreactors with standard functional compartments are currently available. Other combinations and specifications are possible as custom products.

#### Currently available microreactors

Our range of Microreactors are:

- Fully compatible with the FlowStart and FlowScreen
- The best way to start your flow chemistry experiments and screen reaction parameters
- All fitted with special mixing units to ensure excellent mixing
- Supplied in a green cartridge for easy handling and installation.

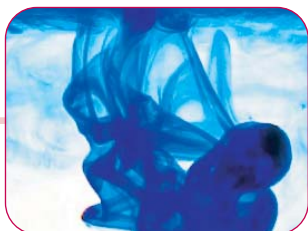
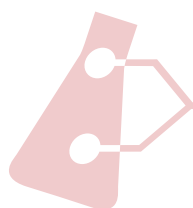
#### Applications

Continuous production of chemical compounds by microreactors has proven to have benefited for many applications. A short selection of reactions which benefit from continuous flow:

- Ultrafast and selective Swern oxidation of alcohols
- Nitration of aromatic compounds
- Paal-Knorr pyrrole synthesis
- Exothermic esterifications and hydrolyses



## Benefits:



Rapid mixing



Better temperature control



Smaller footprint

# FutureChemistry Microreactors

## Basic Microreactor



This microreactor type is the most basic and is designed for general two component chemical reactions.

Inlets	Internal volume	Flow rates*	Reaction time*
2	100 $\mu$ L	2-400 $\mu$ L/min	15 s - 50 min

## Basic Quench Microreactor



The addition of a third inlet enables you to quench the reaction that takes place inside the microreactor.

Inlets	Internal volume	Flow rates*	Reaction time*
3	92 $\mu$ L	2-400 $\mu$ L/min	14 s - 46 min

## Short Quench Microreactor

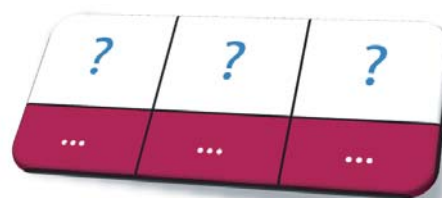


The small internal volume ensures that short reaction times can be achieved, making this microreactor perfect for fast, highly exothermic chemical reactions.

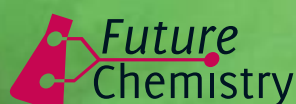
Inlets	Internal volume	Flow rates*	Reaction time*
3	1 $\mu$ L	0.5-1160 $\mu$ L/min	0.05 s - 2 min

## Custom Microreactor

Whether you need multiple inlets, special channel geometries for droplets or particles, or different internal volume for specific chemical applications, reactor designs can be made to customer specifications. Please contact our experts to discuss your special requirements.

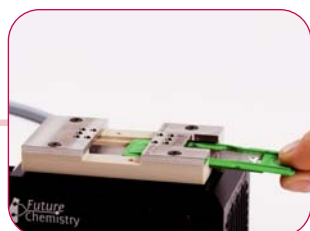


\* These values are indications. Actual ranges depend on several parameters, including liquid viscosity  
The FlowStart is not designed, intended, or authorized for use in applications or as system components intended to support or sustain human life, as a clinical medical device for humans, or as a device in food or pharmaceutical applications

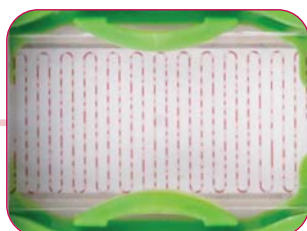


[www.futurechemistry.com/webshop](http://www.futurechemistry.com/webshop)  
or call +31 (0) 24 711 4029

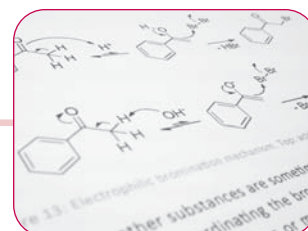
## Features



Easy installation



Visualisation of reaction channels



For a wide range of chemical reactions