

## Fluitec Contiplant flow reactors and scale-up

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Fluitec offers a wide range of Contiplant flow reactors developed for diverse continuous processing applications. Wherever possible, they are equipped with an axial temperature probe. This allows for recording the temperature profile inside the reactor, which provides the following advantages:

- Reaction kinetics and selectivity
- Continuous flow calorimetry
- Scale-up with constant temperature profile
- Real-time monitoring of industrial processes

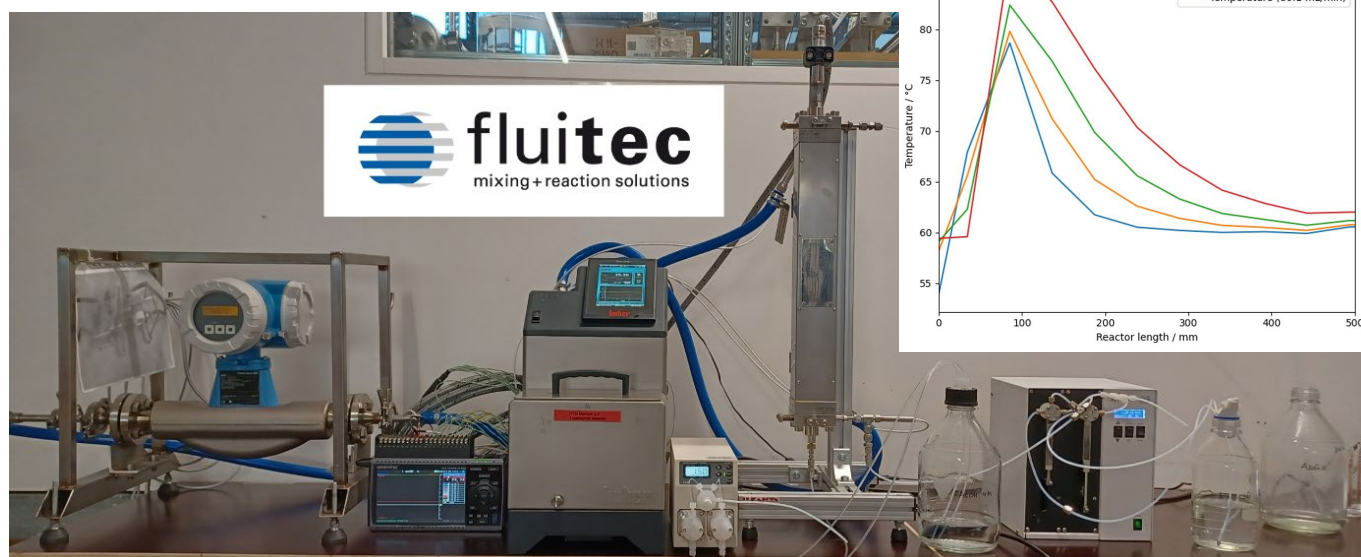


Fig. 1: Fluitec flow calorimeter with an axial temperature probe.

As a result, processes involving static mixers and packed-bed reactors can be scaled up with high precision. The sensor enables spatially resolved detection and analysis of heat transfer phenomena, providing detailed insights into local thermal gradients and heat distribution within the system. This allows a more accurate transfer of process conditions from laboratory to industrial scale while maintaining consistent thermal profiles. Such capabilities are particularly advantageous for hydrogenation processes, where precise temperature control and efficient heat management are essential for process safety, reaction selectivity and product quality.