



Gas Addition Module for FlowSyn

Fast, efficient and controllable gas-liquid reactions in flow

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Rapidly generate a continuous gas-saturated solvent stream

Effortlessly perform heterogeneous and homogeneous gas-liquid reactions

Enjoy the convenience of our optional Portable Gas Reservoir

Add to any existing FlowSyn or other continuous flow reactor system

The Gas Addition Module from Uniqsis provides a safe and efficient means of performing gas-liquid reactions under continuous flow-through conditions. Its primary purpose is to provide a solvent feed stream pre-saturated with gas, but it can also be used as a reactor in its own right.

Fast, controllable gas saturation: Developed by scientists at Cambridge University in the UK¹, the ingenious 'tube-in-tube' design promotes rapid diffusion of pressurised gas through gas-permeable tubing to quickly generate a continuous gas saturated solvent stream in typically less than 10 seconds (for H₂). No undissolved gas bubbles to disrupt control of pressure and residence time!

Wide variety of applications at your fingertips: Compatible with a wide range of reactive gases (e.g. CO, CO₂, H₂, D₂, ethene, ethyne, SO₂) and organic solvents (e.g. THF, MeCN, MeOH, PrOH). Effortlessly perform heterogeneous and homogeneous gas-liquid reactions such as hydrogenation, ozonolysis, carbonylation, and direct synthesis of carboxylic acids.

Flexible: Connect in-line with any FlowSyn or other continuous flow reactor system.

Safe: Integral safety features (protective glass cover and gas pressure release valve) and the use of small gas volumes ensure safe operation in the lab. In addition, the convenient optional **Portable Gas Reservoir** (UQ1098) avoids the need to bring bulky pressurised gas cylinders into the lab.

¹M. O'Brien, N. Taylor, A. Polyzos, I. R. Baxendale and S. V. Ley; *Chem. Sci.* **2011**, 1250-1257.

UQ-1099/UQ1099S Gas Addition Module — Specification	
Reactor tubing (1 m)	Outer: FEP (UQ1099) or optional 316 stainless steel (UQ1099S) Inner: Teflon AF-2400
Gas/liquid volume	1.2 ml gas / 0.5 ml liquid
Flow rate	0.1 to 10 ml/min
Maximum gas pressure	27 bar
Time to 100% saturation	5 to 10 s
Dimensions	330 mm (l) x 190 mm (w) x 150 mm (h)
Weight	2 kg unpacked

