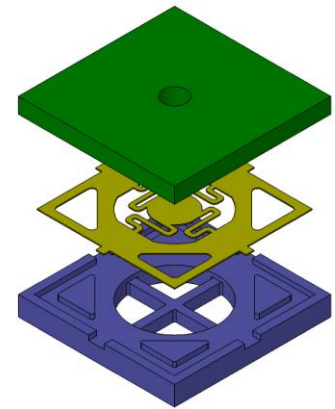


Bartels Microvalves – Controlling Elements in Microfluidics

In the transport of gases and liquids microvalves work as controlling elements defining the direction of the flow. Bartels microComponents offers several passive dynamic check valves as standard components. They are designed to meet different requirements concerning pressure and flow. All microvalves are built up as three layer systems consisting of two different plastic materials.

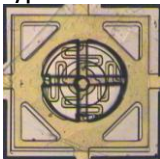
The valves can be ordered separately or directly integrated into your existing microfluidic systems by Bartels microComponents.



Exploded view of the Bartels micro-valves

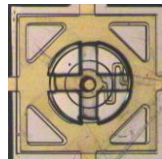
Available types:

Type 1:



- * four soft mountings
- * media: liquids and gases
- * very fast reaction, short response time even at low pressure

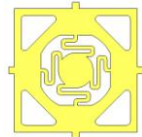
Type 2:



- * one hard and one soft mounting
- * media: liquids
- * for full flow control even at very high pressure

Available versions:

square:



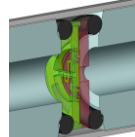
dimensions [mm]: 2 x 2 x 0,45
weight [mg]: 2

round:



Ø 2,2 x 0,45
2

integrated:



Ø 2,7 x 17
500

General information:

Classification	passive dynamic check valve, 2/2-Way, normally closed
Internal volume	~ 2 nl
Materials in contact with fluid	Poly Phenylene Sulphone (PPSU), Poly Imide (PI), Epoxy Resin (EP), Stainless Steel ¹ , Nitrile Butadiene Rubber (NBR) ¹ Other materials can be used according to your requirements.
Max. pressure	10 bar
Max. temperature	100 °C
Lifetime	n.a.
Flow rate / leak rate	pressure-dependent, see diagram
Chemical resistance	depending on materials

¹ only for integrated microvalves



