



Shape Memory Alloy Bistable Valve - BV1101

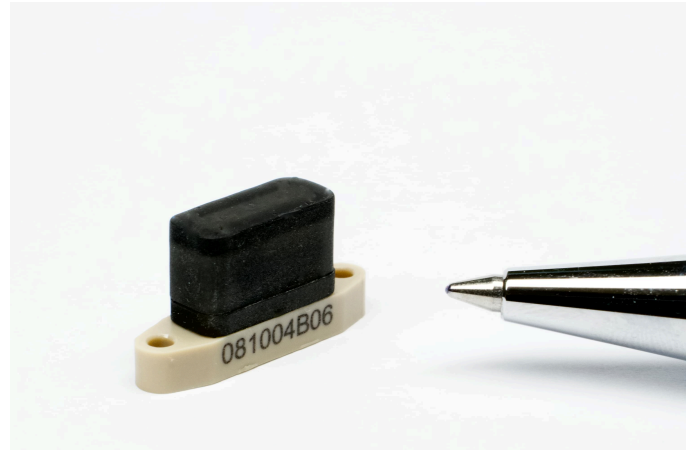
2/2-Way, Media Separated, Bistable, Seat Valve

DESCRIPTION

The BV1101 ultracompact 2/2-way media separated bistable valve enables complex fluidic systems with very low power consumption. The valve is a perfect fit for fluidics in life-sciences and other small but complex fluidic applications.

SPECIFICATIONS

Typical Flow - 4,500 ml/min (air), 135 ml/min (water)
 Maximum pressure @ input - 2.0 bar
 Maximum pressure @ output - 0.75 bar
 Housing material - PEEK*
 Sealing material - Silicone*
 Media - liquids and gases
 Temperature range - 10 - 50 °C
 Optimal switch time - < 0.04s on, < 0.13s off @ 1 bar
 Energy per switching - 0.17 J
 Nominal current - 0.5 A for 0.3 s
 Fluidic connection - Flange / M1.6 screws
 Electrical connections - Soldering pads / cable

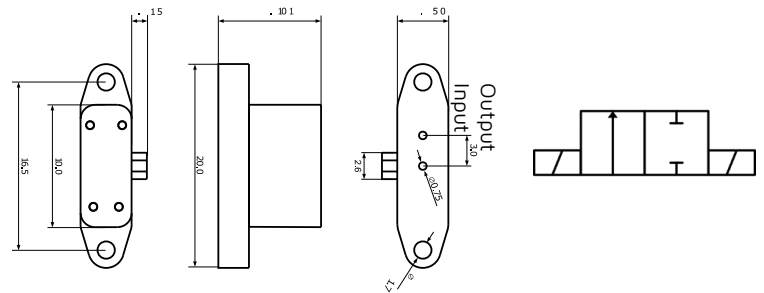


NOTE

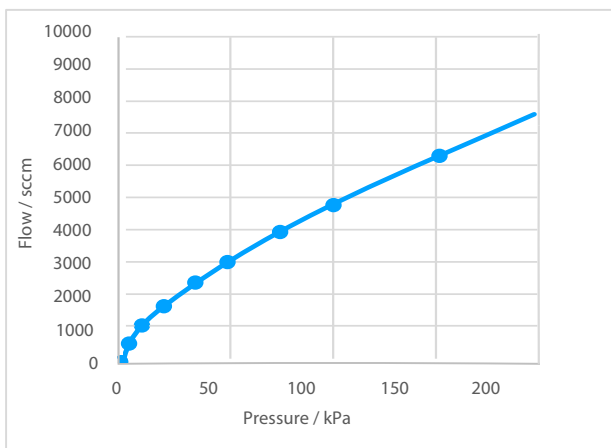
The valve offers directional control with a switching initiated by the controller, switching to open or closed, used for switching and regulating flows.

* Additional materials available for housing and seals upon request.

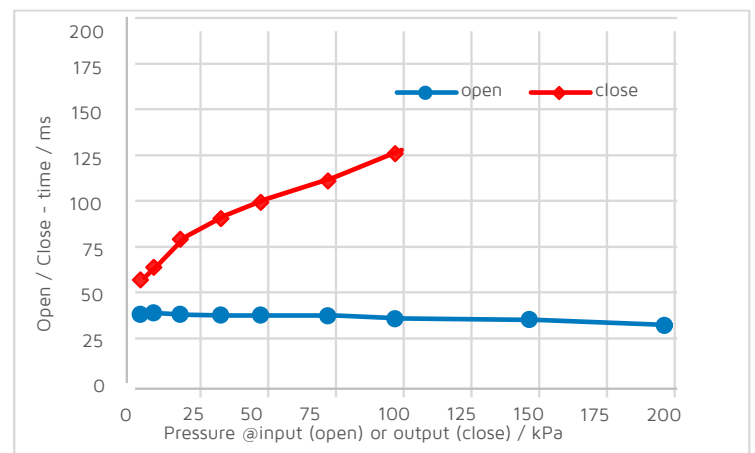
DIMENSIONS (mm)



Typical Flow Characteristics



Graph 1: Flow rate of a memetis 2/2-way bistable valve for pressures of 0.05 bar up to 2.5 bar (input pressure) for air at room temperature with open outlet



Graph 2: Opening and closing time of a memetis 2/2-way bistable valve for pressures of 0.05 bar up to 2 bar (input pressure) for air at room temperature.



Complementary Memetis Products



Programmed electrical control unit (ECU), powered by microUSB-port, to control up to two monostable or one bistable valve. The ECU includes adapter cables and has digital input channels (I/O, I2C).

ECU ORDERING INFORMATION

ECU-P-2-mono

Electrical control unit, programmable, USB Connection, I/O channels, I2C interface, 2 Channels, drive up to two monostable valves.

ECU-P-2-bi

Electrical control unit, programmable, USB Connection, I/O channels, I2C interface, 2 Channels, drive one bistable valve.

ORDERING INFORMATION

A-B-C-D-E-F-G

EXAMPLE:

BI-22-075-2P-PK-S-M



Memetis fluidic adapter (FA) enables connecting our valves with Luer-Locks to your application. Available with a transparent Polycarbonate (biocompatible) base plate to observe the liquid flow or with a conventional black base plate.

FA ORDERING INFORMATION

AD-PC-1i1o-1032-L

Fluid adapter for valves, Polycarbonate, 1 Inlet / 1 Outlet, Male Luer Connectors, transparent.

AD-R-1i1o-1032-L

Fluid adapter for valves, 3D-printed, 1 Inlet / 1 Outlet, Male Luer Connectors, black.

*Call for additional material options for fluid adapter

A Model	B Port Configuration	C Orifice Size	D Max Pressure	E Body Material	F Membrane Material	G Seal Type
BI	22 - 2/2 Way	075 - 0.75 mm	2P - 2 bar	PK - PEEK PA - PMMA	S - Silicone	M - Mat Seal