



Find out more

Emulsion control valves

Smart proportional valves from Dolphin Fluidics are 2-way medium separated, normally closed, valves for precision dosing, dispensing and mixing.

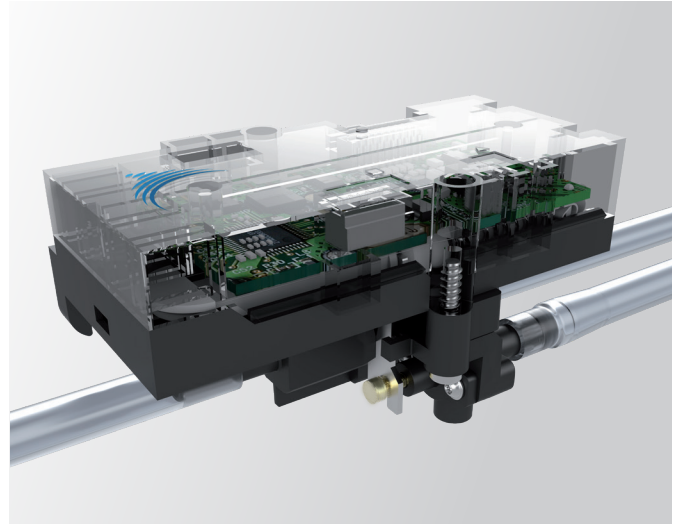
The emulsion control valve has 2 independent channels.

Channel 1 proportionally controls the air intake flow rate, channel 2 proportionally controls a liquid/steam flow.

Each product can be fully customized according to application needs, in terms of interfaces, fluidics performance and electronic control input.

Advantages:

- Air/liquid dosing and dispensing valve
- Closed loop proportional control
- Simple and light, 10 times lighter than existing valves
- Reliable sealing system with medium separation
- Low power actuator, 10 times less than existing valves
- Noiseless operation
- Wireless data communication, remote control and maintenance
- Patented design
- NSF/FDA material compliancy



MAIN APPLICATIONS

- Milk frothing

TECHNICAL INFORMATION

DFD.DSA.000.020

2 independent channels proportional direct operated valve

Dual 2/2 NC or 2/2 NC; 3/2 NC

Medium separated valve

Closed loop proportional control

100% duty cycle and continuous duty

CH1 Air, CH2 liquid or steam

Body materials: POM, PEEK, PPS, PP, PPO, PA

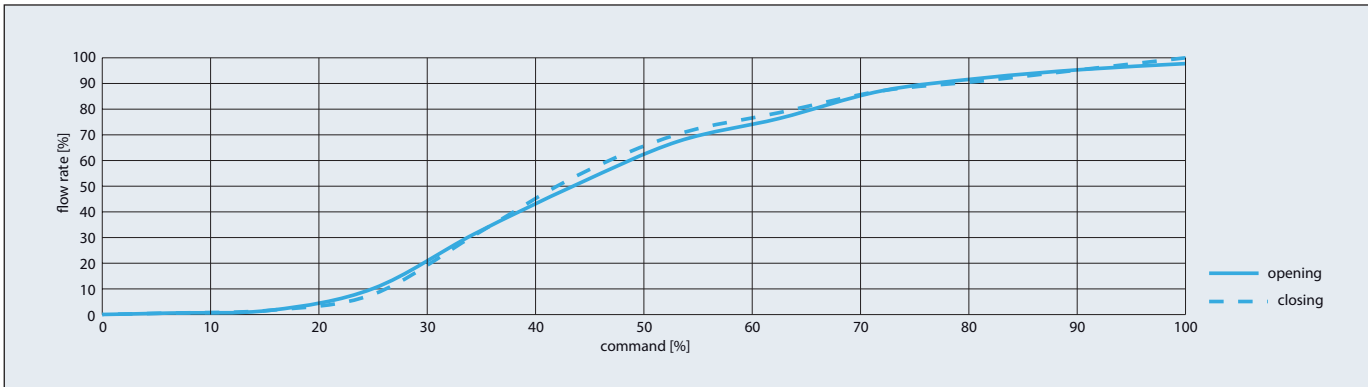
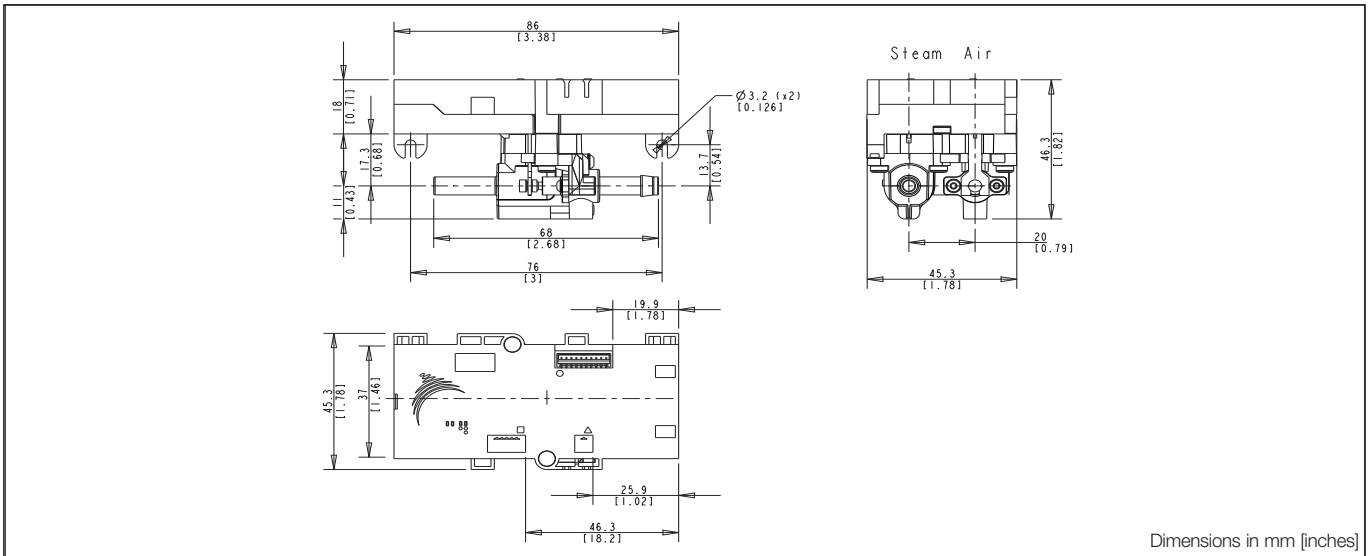
Seal materials : EPDM, FPM, VMQ, PTFE, SBR, FFPM, NBR

FLUIDIC PERFORMANCE

Minimum ΔP	CH1 0 bar, CH2 0 bar (CH1 0 psi, CH2 0 psi)
Maximum ΔP	CH1 1 bar, CH2 2 bar (CH1 14.5, CH2 29 psi)
Orifice diameter	CH1 1.7 mm, CH2 3.2 mm
Mounting details	Any direction
Fluid connections	Barbed (other upon request)
Fluid temperature	$\leq 130^{\circ}\text{C}$ ($\leq 266^{\circ}\text{F}$)
Environmental temperature	$-10^{\circ}\text{C} \dots +60^{\circ}\text{C}$ ($+14^{\circ}\text{F} \dots +140^{\circ}\text{F}$)

ELECTRONIC CHARACTERISTICS

Operating voltage	5 - 24 VDC
Steady-state power	< 1.00 W per channel @ 5 VDC
Stand-by power	0.15 W @ 5 VDC
Actuation time	300 ms
Expected life	Million cycles (depending on application)
Proportional control input	Analog / PWM / Serial RS-485 / I ² C / BLE
Sensor input	Analog / Pulses / I ² C
Communication and user interface	Serial RS-485 / I ² C / BLE / Digital I/Os / Status LEDs



Dolphin Fluidics reserves the right to alter the specifications indicated in this catalogue at any time and without prior notice.

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