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# Emulsion control valves

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

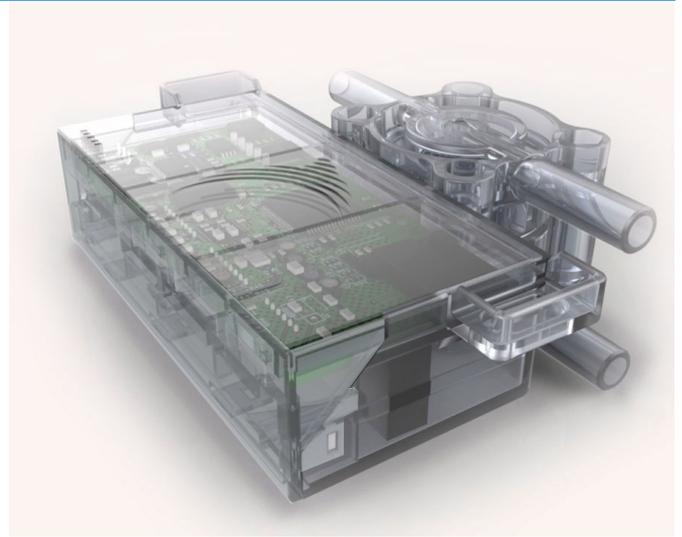
The emulsion control valve has 2 independent channels.

Channel 1 proportionally controls the air intake flow rate, channel 2 open and close 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, 20 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

**DFP.DAP.002.025**



On/off pilot operated valve and proportional direct operated valve

Dual 2/2 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

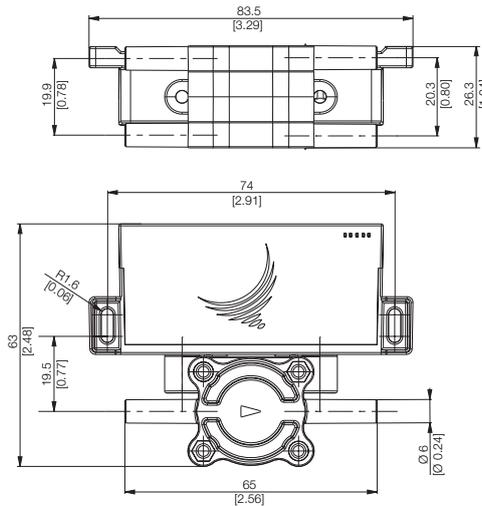
Seal materials : EPDM, FPM, VMQ, PTFE, SBR, FFPM, NBR

### FLUIDIC PERFORMANCE

	<b>DFP.DAP.002.025</b>
Minimum $\Delta P$	CH1 0 bar, CH2 0.2 bar
Maximum $\Delta P$	CH1 1 bar, CH2 2.5 bar
Orifice diameter	CH1 1,2 mm, CH2 3 mm
Mounting details	Any direction
Fluid connections	Barbed (other upon request)
Fluid temperature	$\leq 130^{\circ}\text{C}$
Environmental temperature	$-10^{\circ}\text{C} \dots +65^{\circ}\text{C}$

### ELECTRONIC CHARACTERISTICS

Operating voltage	5 - 24 VDC
Actuation power	0.6 W per channel @ 5 VDC
Stand-by power	0.2 W @ 5 VDC
Rise time	150 ms
Expected life	Million cycles (depending on application)
Proportional control input	Analog / Digital / PWM / Serial / I <sup>2</sup> C / BLE
Sensor input	Analog / Pulses / I <sup>2</sup> C
Communication and user interface	Serial / I <sup>2</sup> C / BLE / Digital I/O / Status LEDs



Dimensions in mm [inches]

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

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