



We digitalize the fluidics

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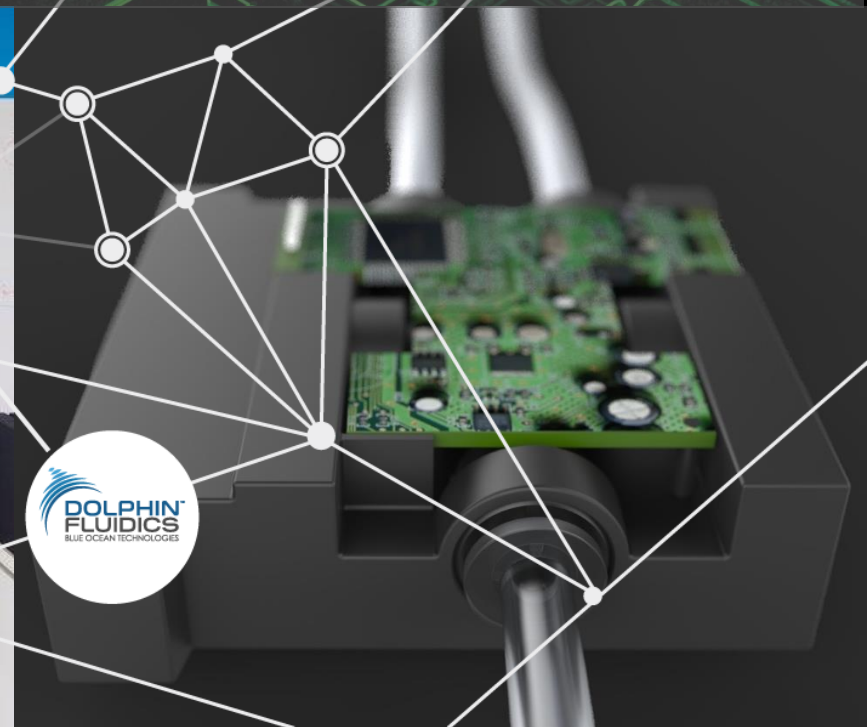
Dolphin Fluidics is an innovative startup, powered by Fluid-o-Tech,
developing, producing and selling precision fluidics systems

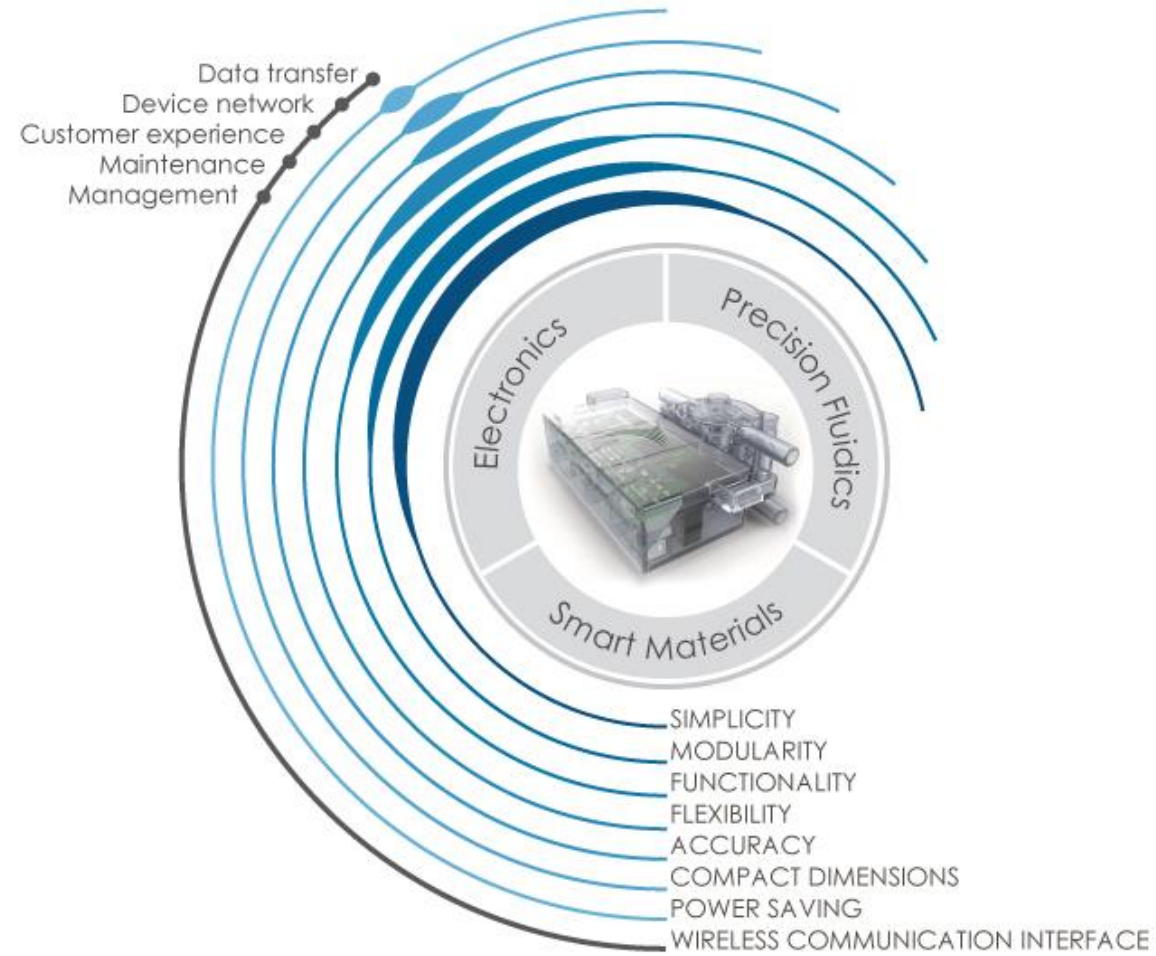
combining embedded electronics, connectivity and smart actuators,
enabling new user's experience and customer value through data.



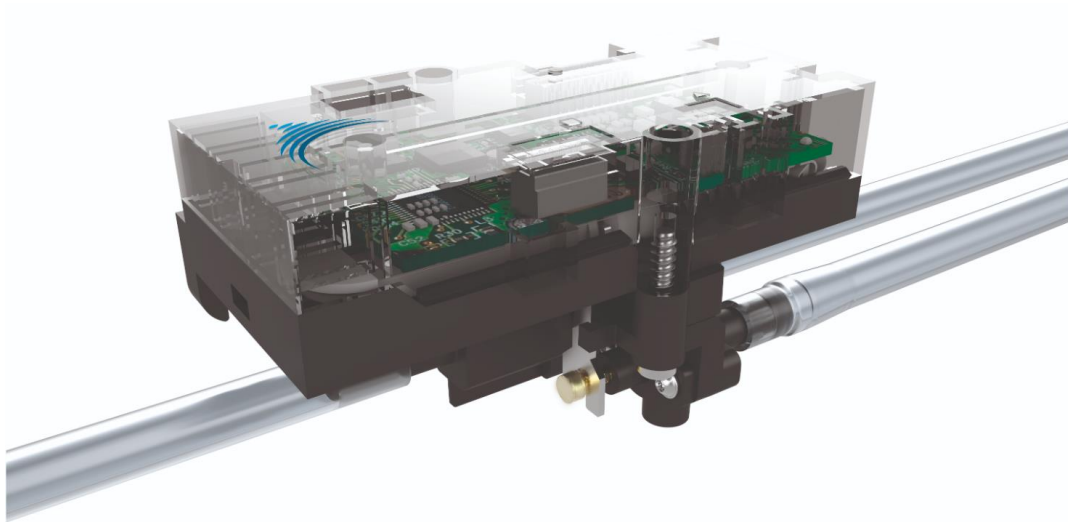
WE DIGITALIZE THE FLUIDICS!

70 years in fluidics, 20 years in smart actuators
a unique team at your fingertips !





DOLPHIN FLUIDICS SMART VALVE PLATFORM



- Air/liquid dosing, dispensing and mixing in a **single digital device**
- Actuator technology based on Shape Memory Alloy technology, **totally noiseless** operation
- **Closed loop proportional** control keeping high accuracy and stability over time
- **No drift** in performances
- Reliable sealing system with **medium separation**
- **Wireless** data communication and remote control
- **Small, light, very low power** operation (10 times less than standard actuators)

PROFESSIONAL FOOD & BEVERAGE



MEDICAL



INDUSTRIAL

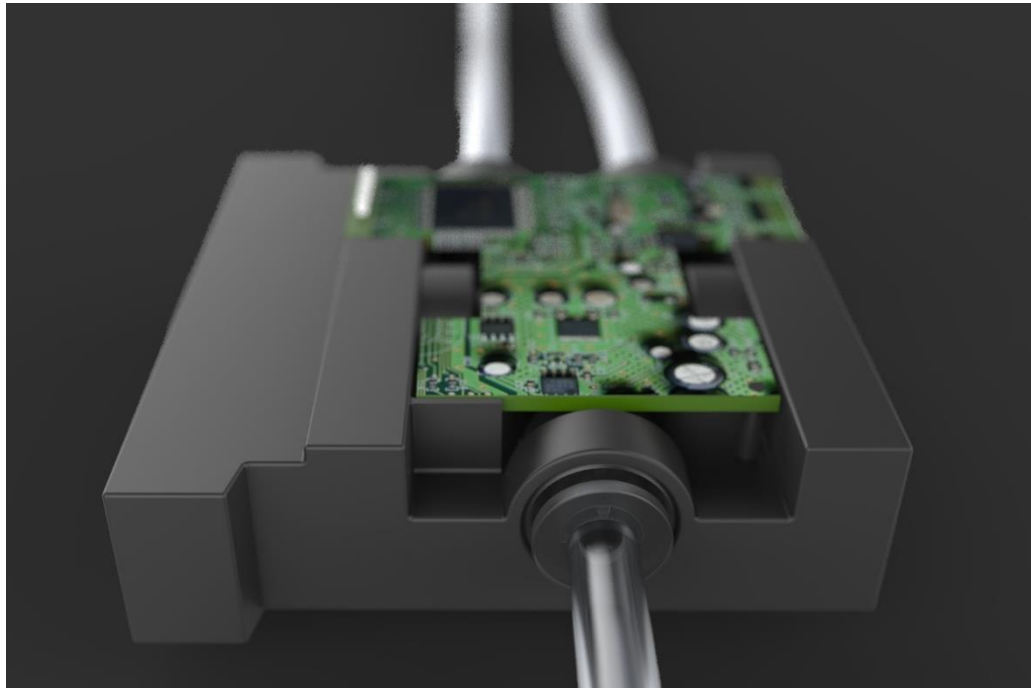




Shape Memory Alloys Actuators
A totally qualified technology from automotive

Dolphin Fluidics products are conceived as “**product platforms**” integrating smart sensors, control electronics and communication in a single device.

ELECTRONIC VALVES



Fully controlled fluidic systems integrating sensors capabilities and electronics for precision fluids dosing, dispensing and mixing

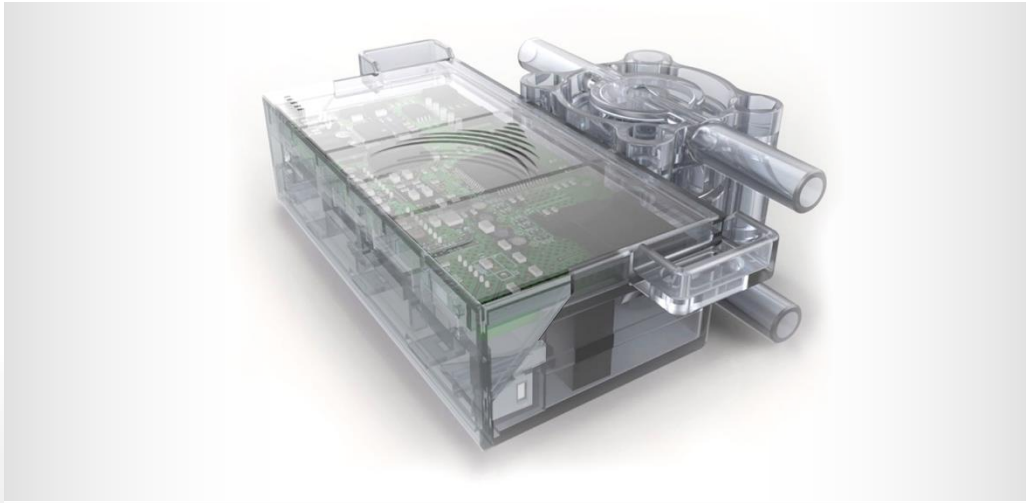
THERMOSTATIC VALVES



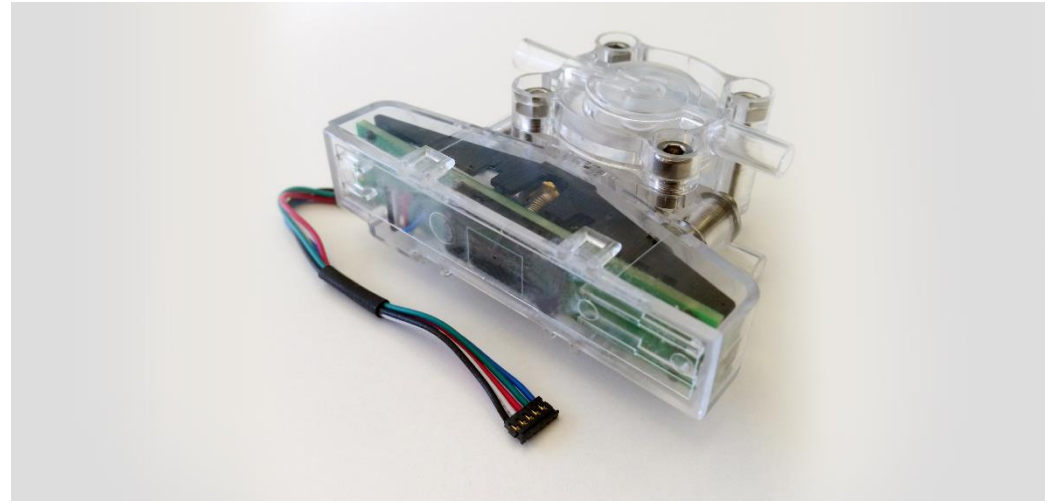
Acts as sensors and actuators simultaneously, without electrical input these products can precisely control flows and temperatures

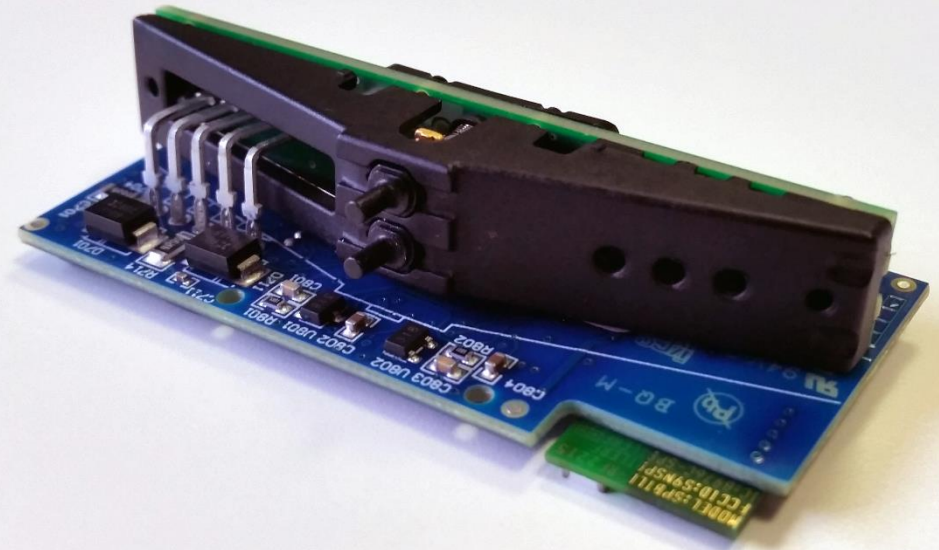
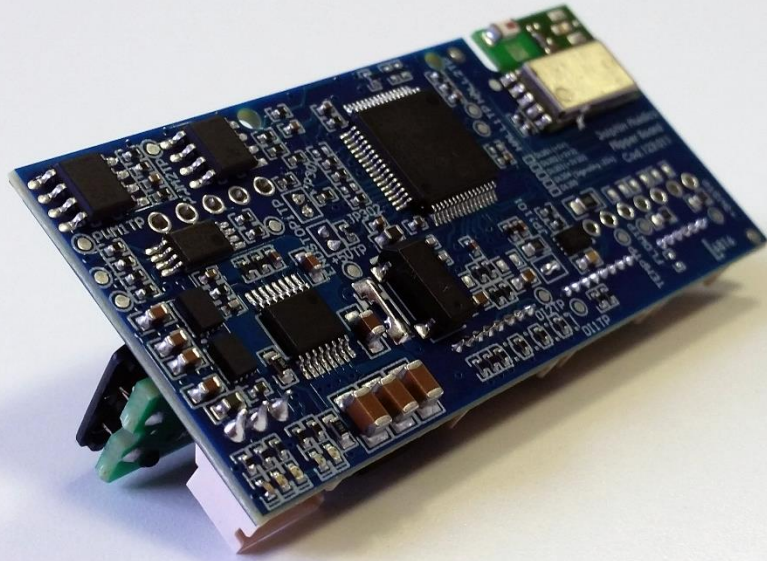
ELECTRONIC VALVES

Smart proportional valve



DFP On/off valve





ELECTRONIC CHARACTERISTICS

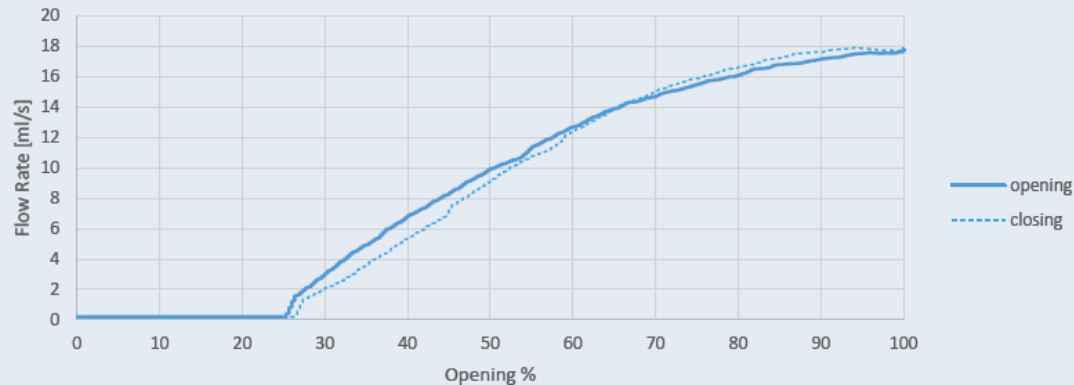
Operating voltage	5 - 24 VDC
Actuation power	0.6 W per channel @ 5 VDC
Stand-by power	0.2 W @ 5 VDC
Rise time	150 ms
Expected life	Million cycles (depending on application)
Proportional control input	Analog / Digital / PWM / Serial / I ² C / BLE
Sensor input	Analog / Pulses / I ² C
Communication and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

Smart high pressure proportional valve



Smart proportional valve

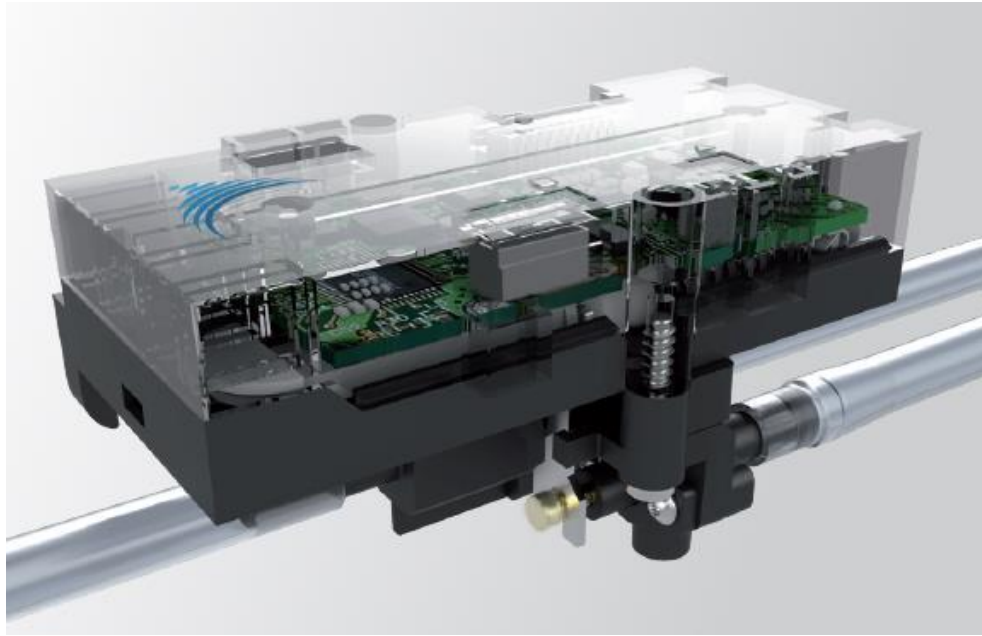
- 2 ways normally closed valve
- High pressure operation up to 20 bar
- Liquids and gases control
- Flow rate, pressure and temperature closed loop control
- Direct interface with external sensors



Flow rate vs command %

- High pressure liquid dosing, dispensing and mixing 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

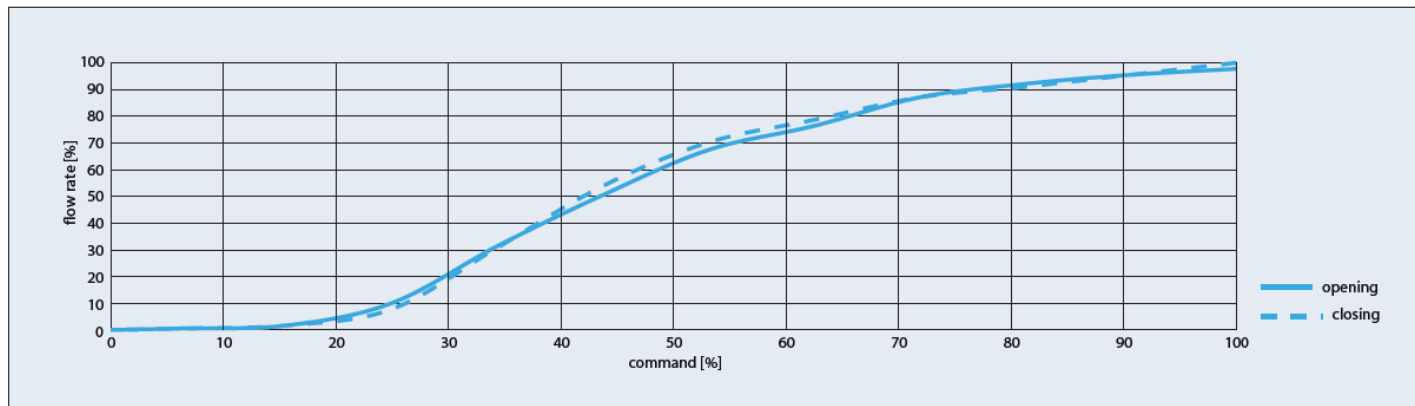
2 ways, 3ways Smart Proportional dual channels valve



Smart modular proportional valve
with 2 separated channels for liquids or gases

Product channels configuration:

- 2 proportional 2 ways NC channels for air/gases
- 2 proportional 2 ways NC channels for liquids
- 2 proportional 3 ways NC channels for liquids
- 1 2ways liquid and 1 2 ways for gas



Flow rate vs command %

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THERMOSTATIC VALVES

Mixer NiTea



A passive mixing valve designed to dispense water at the desired temperature.

Anti-Vacuum Valve



A smart passive device designed to prevent negative pressure inside boilers.



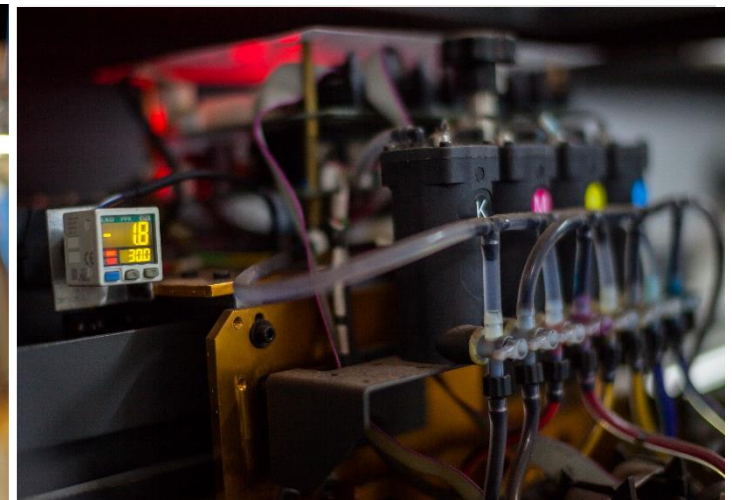
MEDICAL



PROFESSIONAL FOOD & BEVERAGE



INDUSTRIAL



MEDICAL APPLICATIONS

ELECTRONIC INFUSION SETS



DIALYSIS MACHINES



RESPIRATORY DEVICES AND GAS
BLENTERS



THANK YOU

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For further information please visit our web site:
www.f-lab.org
www.dolphinfluidics.com
www.fluidotech.it