

The **FENYX** Variable Dispense pump connects the needs of the life sciences field with an advanced miniaturized fluidic system designed to manipulate and control small volumes of fluid at the microscale level for a broad range of applications.

Achieving optimal performance in accuracy and repeatability with innovative design modifications, this product enables the ability to do precision microliter dispensing, high flow washing, and priming with one single pump.

This technologically advanced fluidic device not only meets the growing demand for simplified architecture, it also provides increased throughput, decreased cost of ownership, and precise dispenses critical in life science applications.

Patent Pending

# **FEATURES & BENEFITS**

- CeramPump® valveless technology simplifies fluidic architecture with one moving part in fluid path
- Internal sapphire-hard ceramics are chemically inert, dimensionally stable, and abrasion resistant
- Calibratable home dispense volume
- Linear anti-backlash mechanism
- Differential linear encoder

- Self-priming, dispensing, and flushing functions
- Non-contact dispensing down to 4µL
- Maintains 0.5% precision for millions of cycles without maintenance or recalibration
- Enables increased throughput compared to alternative technologies
- Reduces system total cost of ownership compared to alternative technologies







Fluid Metering's facility is certified to the ISO 9001:2015 international standard. Product







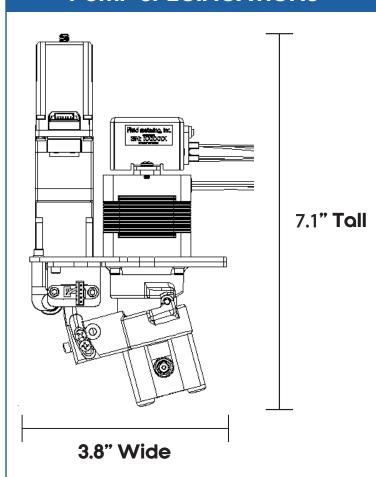


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### **PUMP SPECIFICATIONS**



### **WETTED MATERIAL OPTIONS:**

Ceramic: Alumina, Zirconia

Pump Housing: PVDF, ETFE, Polypropylene

#### **SEAL MATERIAL OPTIONS:**

Carbon-Filled PTFE, FKM, FFKM, Rulon AR

#### **PORT OPTIONS:**

1/4-28 UNC Threaded Ports. Barb Fittings (1/8" - 1/4" Tubing ID), 1/4" Compression Nuts

#### **DISPENSE VOLUME:**

For  $>10 - 200 \mu L$ For 2 - 10µL Accuracy of ± 1% Accuracy of ± 5% Precision (CV) ≤ 1% Precision (CV) ≤ 0.5%

# **DRIVE MOTOR SPECIFICATIONS**

**RATED CURRENT:** MOTOR FRAME:

Rotational: 2.0A Rotational: NEMA 17 (43mm) Linear: 1.0A Linear: NEMA 11 (28mm)

**STEP ANGLE:** MOTOR SPEED:

Rotational & Linear: Rotational: Up to 1000 RPM 1.8° Full Step Linear: Up to 1900 RPM

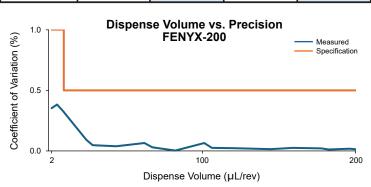
MOTOR DIRECTION:

Rotational: Clockwise Linear: Clockwise & Counterclockwise

**OPERATING TEMPERATURE:** 

0°C to 50°C

<b>&amp;F</b>	Dispense Volume (μL/rev)		Flow Rate (mL/min)	
FENYX	min	max	1 RPM	1000 RPM
FENYX-100	1	100	0.001	100
FENYX-200	2	200	0.002	200
FENYX-400	4	400	0.004	400



Maximum standard operating pressure: 30 PSIG

## **CUSTOMIZED FLUIDIC SOLUTIONS**

Be it a small tweak to existing technology or a full development project, our pumps and dispensers can be customized to accommodate dispense volume, flow rate, temperature, pressure, materials, and more.

#### Contact Us Today!

Rapid prototyping available within 10 business days\*

\*Prototype requests are subject to availability of parts and materials. Fluid Metering will confirm availability within 2 business days and provide an estimated shipping date.











