

Fluid metering

STFQ

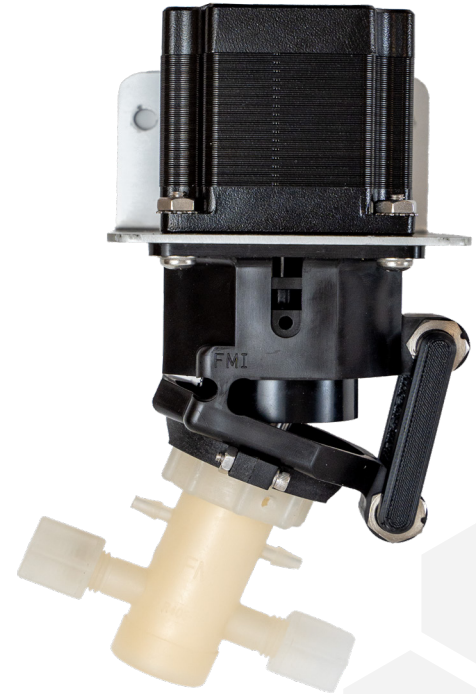
FIXED DISPENSE PUMP (250 μ L - 1.25 mL)

Precision You Can Depend On

The STFQ Pump is a compact, valveless positive displacement pump engineered for accurate, repeatable micro-volume dispensing in diagnostic, analytical, medical, and laboratory instrumentation. Built on FMI's proven CeramPump® technology, it delivers factory-calibrated dispense volumes with $\leq 0.5\%$ precision.

Designed for Flexible OEM Integration

Designed for seamless OEM integration, the STFQ Pump combines a patented fixed-link mechanism with integrated optical positioning feedback to ensure consistent dosing performance. Sapphire-hard ceramic components provide exceptional durability, chemical compatibility, self-priming capability, and reliable operation under back pressure, making the STFQ Pump a dependable solution for demanding fluidic applications.



KEY BENEFITS

Precision Dosing

- Fine-tuned dispense volumes at the calibrated setting that achieve $\pm 1\%$ accuracy.

Factory-Calibrated Dispense Volume

- Factory-set dispense volume ensures consistent dosing performance and reduces setup, calibration, and validation requirements.

Integrated Positioning Accuracy

- Optical feedback provides precise motor position reference to maintain repeatable dispense performance.

In-Line Cleaning Capability

- Optional flush ports support active cleaning to manage residue and maintain system performance.

Consistent Repeatable Performance Across Applications

- Handles varying fluid properties and operating conditions while maintaining stable and repeatable output.

OEM Engineering Support

We offer support for dispense volume, flow rate, pressure, material compatibility, system integration, and configuration optimization. Contact us to discuss your project and explore a solution designed for your specific needs.



Fluid Metering's facility is certified to the ISO 9001:2015 international standard. Product components are manufactured to meet EU RoHS and REACH compliance requirements.



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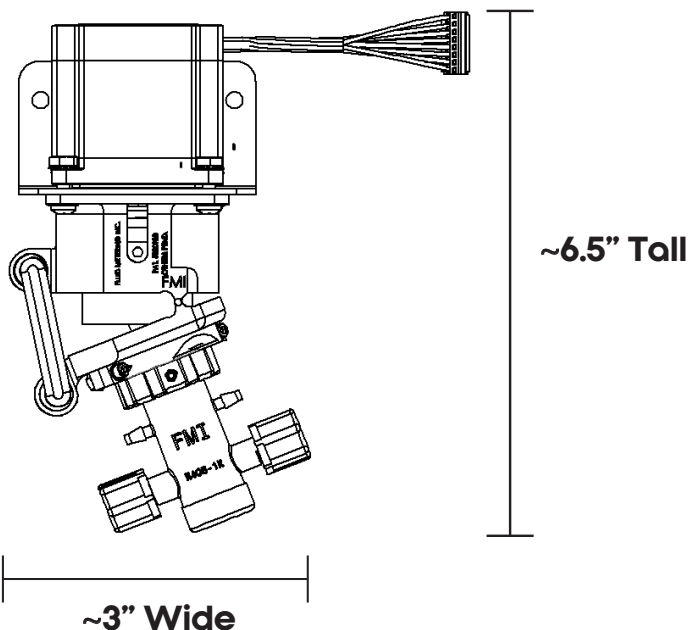


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PUMP SPECIFICATIONS



WETTED MATERIAL OPTIONS:

Ceramics: Alumina
 Pump Housing: PVDF, ETFE, Polypropylene
 Seals: PTFE, FKM, FFKM, Rulon AR, UHMW-PE

PORT OPTIONS:

1/4-28 UNF Threaded Ports,
 7/16-20 UNF Threaded Ports
 Barb Fittings (1/8" - 1/4" Tubing ID),
 1/4" Compression Nuts

DISPENSE VOLUME¹:

For 250 - 1250 μ L
 Accuracy of $\pm 1\%$
 Precision (CV) $\leq 0.5\%$

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.

DRIVE MOTOR SPECIFICATIONS

RATED CURRENT:

Rotational: 2.3 A

MOTOR FRAME:

Rotational: NEMA 23 (57 mm)

STEP ANGLE:

Rotational: 1.8° Full Step

MOTOR SPEED:

Rotational: 1-1000 rpm

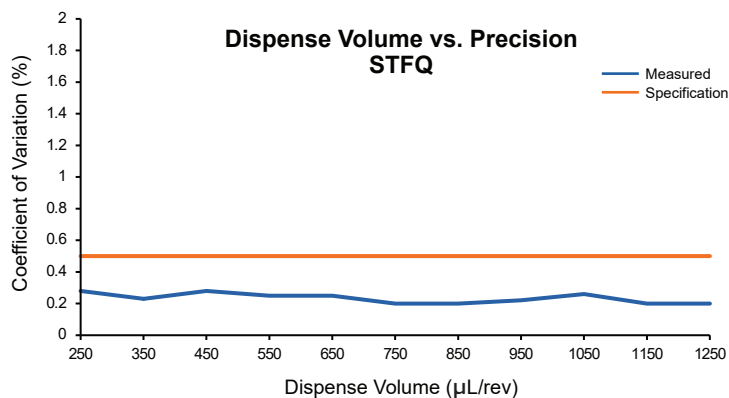
MOTOR DIRECTION:

Rotational: Bidirectional,
 Calibrated Clockwise

OPERATING TEMPERATURE:

0°C to 50°C

F	Dispense Volume (μ L/rev)		Flow Rate (mL/min)		Accuracy, Precision
	min	max	1 rpm	1000 rpm	
STFQ			1 rpm	1000 rpm	(%,%)
STFQ-1000	250	1000	0.25	1000	$\pm 1\%$, $\leq 0.5\%$
STFQ-1080	270	1080	0.27	1080	
STFQ-1250	313	1250	0.313	1250	



- Maximum standard operating pressure: 60 psig

¹ The performance of Fluid Metering pumps may vary based on specific application conditions and individual user setups. We recommend speaking with one of our engineering experts for guidance tailored to your specific needs.