

PISTON PUMP: PRECISION SERIES

4 MM – RINSE PORT VERSION



The Precision Series piston pumps were developed specifically for applications requiring fast, accurate dispensing. The piston geometry isolates the outlet and inlet ports without the need for internal check valves, simplifying the construction, reducing flow restrictions, and lowering the installed cost. The pump displacement is adjusted by altering the angle between motor and piston. Speed sensing options include encoders and photo-optical sensors. The rinse port version is preferred when pumping fluids that form precipitates. Routing rinse fluid through the rear of the pump will clean the ceramic surfaces and prevent damage to the seal. **The Precision series - Engineering Your Flow.**

- > Dialysis
- > IVD Diagnostics
- > Precision Dispensing / Dosing
- > Sterilisation

Benefits



3D Mounting: Our pumps are extremely versatile when it comes to mounting. The body is compact in size and the flexible inlet and outlet port locations simplifying the plumbing and conserving valuable space.



Long Life: DPP pumps are all characterized by their robustness and performance. Wear and tear is at its lowest, and their smart designs ensure a sustainable reduction of operating costs.



Adjustable Stroke Volume: Our pumps are versatile. With angle adjustment, a piston-type pump can deliver various doses. The stroke volume is infinitely adjustable while maintaining a constant dead volume.



Chemically Resistant: Our pumps are made from materials that are resistant to a wide range of aggressive chemicals. This means our pumps can operate reliably and precisely in the harshest environments.



Tailor Made: Every pump that leaves our factory is made to measure and designed exactly according to the technical requirements of our customers. Furthermore, they can always be traced through their laser markings.



100% Outgoing Test: Before any pump leaves our factory, it is stringently and extensively tested in accordance with customer requirements. Our customers receive detailed reports, saving them time and money.

Specifications

Performance

Max. continuous pressure:	4 bar
Max. intermittent pressure:	6 bar
Max. static case pressure:	6 bar
Inlet:	Self-priming
Accuracy:	1% of full scale
Precision:	Typically < 0.5%
Speed range:	0-500 rpm*
Viscosity:	0.3 to 100 cps
Pump displacement:	Adjustable 25 to 100 µL / stroke

Temperature

Fluid temperature range:	0 to 100°C
Ambient air temp. range:	0 to 60°C
Relative humidity range:	10-90% non-condensing

* Lower for fluids with high vapor pressures and viscosities

Electrical

Motor type:	Stepper
Step Angle:	1.8°
Winding Configuration:	Bipolar
Rotation:	Reversible
Max. Current:	0.95 Amp
Connection:	Wire leads (26 AWG)
Speed sensing:	Optical Square Wave

Construction

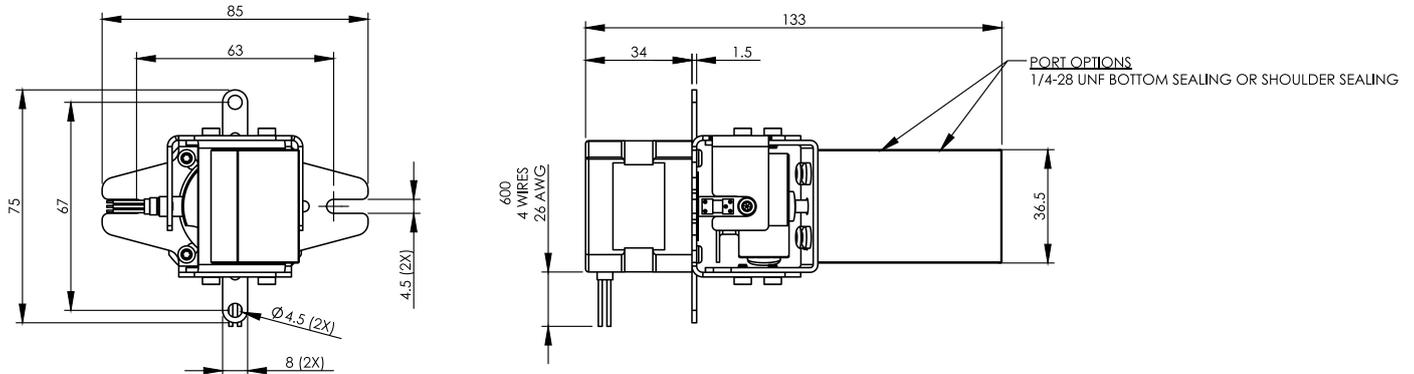
Wetted Materials:	Alumina
- Ceramics (Piston/Cylinder):	PVDF, PP, or PTFE
- Pump Housing:	Teflon or UHMWPE
- Seals:	1/4"-28 UNF
- Process and Rinse Ports:	(Contact DPP for options)

Performance values are limits and cannot all happen simultaneously. Please contact your sales engineer for further technical information and customized options.

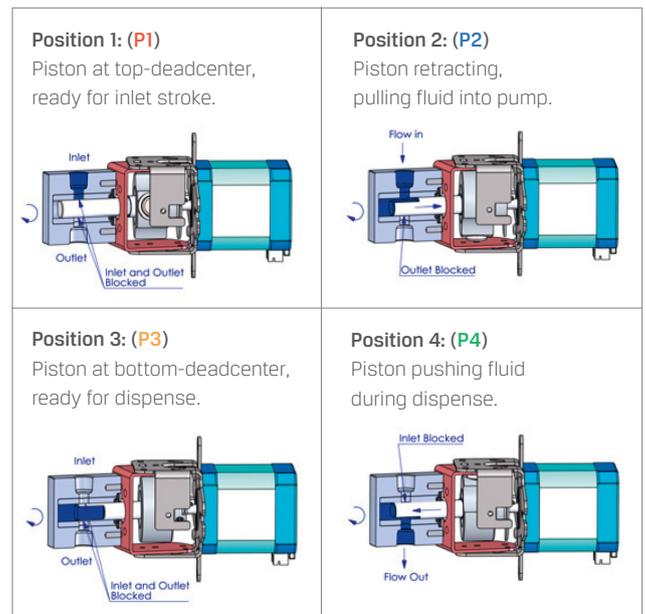
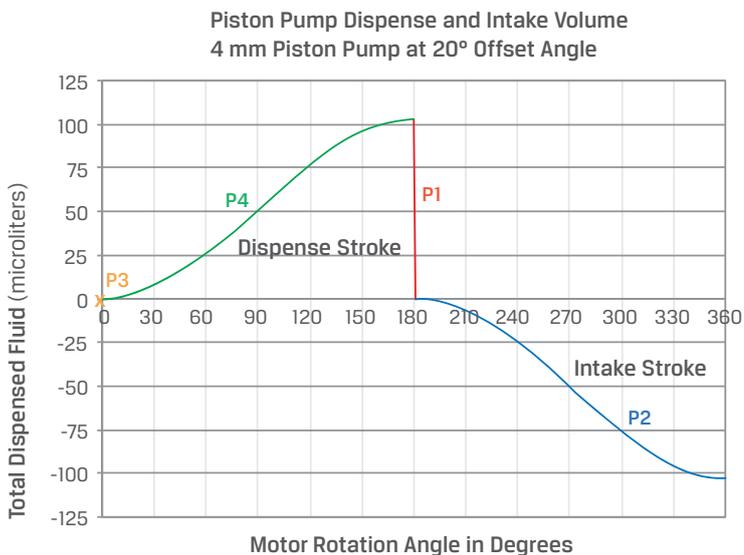


Engineering Your Flow

Dimensional Outline Drawing (mm)



Typical Performance Curve (Water at Room Temperature)



DPP is certified to medical standard ISO 9001 / ISO 13485 and operates a clean-room according to ISO Class 7. All pumps are customized; the information given represent one of the possibilities.

None of the information supplied by Diener Precision Pumps constitutes a warranty regarding product performance or use. Any information regarding performance or use is only offered as suggestion for investigation for use, based upon Diener Precision Pumps' or other customer experience. DPP makes no warranties, expressed or implied, concerning the suitability or fitness of any of its products for any particular purpose. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use. The disclosure of information herein is not a license to operate under, or a recommendation to infringe any patents. All new DPP product developments are tested and confirmed according to the «ROHS Directive».