Series PF

VALVELESS PISTON PUMP

Micropump® achieves a new level of accuracy and reproducibility with the Series PF Valveless Piston Pump. Designed for highly viscous and abrasive fluids, the Series PF pump maintains high-volumetric efficiency at elevated pressures for precise dispensing and/or continuous metering in a compact package. With no valves, the Series PF virtually eliminates clogging and maintenance.

FLOW AND PRESSURE PERFORMANCE
Series PF maintains accurate flow throughout the entire pressure range.

VALVELESS DESIGN
Series PF is designed with integral active valving, resulting in the ability to pump thick and abrasive media while eliminating check valve failures.

RECIPROCATING AND ROTATING PISTON
This piston design offers precise and reproducible dispensing and metering.

EASY TO CONTROL
Controllability and precise fluid delivery are assured using a stepper motor control card or electronic controller.

CHEMICALLY RESISTANT
Series PF has a long-life in aggressive chemical environments.

ABRASIVE FLUIDS
Series PF maintains a long life even for abrasive fluids like pigmented paints and inks.

INNOVATIVE DESIGNS
Micropump uses the latest engineering tools and manufacturing equipment to produce the most innovative pumping solutions available. Products are developed using state-of-the-art CAD, Finite Element Analysis (FEA), and rapid prototyping tools to ensure the highest level of product quality and reliability.

ENHANCED EFFICIENCY
As part of the IDEX Corporation, Micropump offers fully-integrated liquid subassemblies, gas management systems, and precision components. Products include Pumps, Valves, Manifolds, Tubing, Fittings, Degassing/Debubbling Systems, Air Compressors, Vacuum Generators, and HPLC Columns. Additional services are custom fluidic engineering and development, contract manufacturing, extrusion, molding, machining, and diffusion bonding.
PUMP PERFORMANCE

PERFORMANCE SUMMARY

FLOW RATE AT 1000 RPM
- 940 mL/min (0.248 gpm)

DISPLACEMENT
- 0.94 mL/rev

MAXIMUM RATED DIFFERENTIAL PRESSURE
- 6.89 Bar (100 psi)

TEMPERATURE RANGE
- Dependent upon material

VISCOSITY RANGE
- Min 1 cp tested to 5000 cps

SELF PRIME (DRY LIFT)
- Not Recommended

COEFFICIENT OF VARIATION (CV)
- CV is a measure of repeatability of dispersed volume per revolution ±2%

DC VOLTAGE INPUT
- 24 to 72 Volt

CURRENT INPUT
- 3A maximum

WETTED MATERIALS

PISTON MATERIAL
- 440C

SEAL MATERIAL
- UHMWPE

BASE MATERIAL
- Nylon

POWER REQUIREMENT
- 24 to 72 volt
- Available stepper motor controller.