



230 Micro Pump™

Precision Fluid Dispensing

Reliable Dispensing

230 Micro Pump™ systems deliver fluid accurately with microliter precision for demanding dispensing scenarios. With modular components and plenty of options, each system is custom designed, guaranteeing it complements new and existing production lines.

230 Micro Pump™ systems deliver reliable, consistent output thanks to Unist's proven pump technology which displaces a set amount of fluid with each pump stroke regardless of changes in ambient temperature.

- Precise output regardless of temperature change
- Reliable positive displacement pump technology
- Highly configurable - dispense fluid your way



Cutting Tools? Punches? Wear-Points? Bearings?
Chains? Assembly Processes? Coatings?

230
micropump™

Your best choice for easy, accurate dispensing!



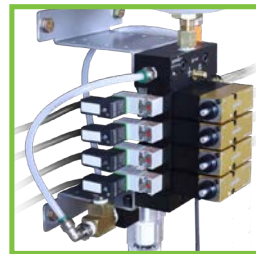
Precision Dosing
Control your fluid output down to the microliter.



Reliable Fluid Output
Deliver accurately metered fluid regardless of temp.



Self Priming Pumps
No special bleeding required



Built Tough
To perform in harsh industrial environments



Highly Configurable
Many configuration options to fit your application.

Pump-based Performance

Unist's proven positive-displacement pump technology is at the center of the Micro Pump™ system and is the driving force behind its accuracy and reliability.

Available pump volumes:

- 20µL per stroke
- 40µL per stroke
- 60µL per stroke

Available pump adjustment

- Fixed output
- Adjustable output



Ready to learn more?
unist.com/230

Configuration

Maximize fluid savings and control when you customize a 230 Micro Pump™ to complement your application.

Continuous or Intermittent Fluid Output

- *Continuous Fluid Output* - Choose the volumetric output and duration of a continuous flow of fluid.
- *Intermittent Fluid Output* - Choose the volume of a single, intermittent 'shot' of fluid and a delivery rate up to 250 shots/min.

Pump Control Type

- *Direct Control* – Each fluid output has its own pump and atomizing air control valves to be controlled by a machine controller.
- *Remote Control* – Like direct control except each valve is mounted separately from the pump stack and connected with tubing.
- *Common Control* – Groups of 1 to 6 fluid outputs are activated at the same time with a common control valve. Pump repeat timers such as the Pulse R™ digital timer can be used to repeatedly cycle the pumps in a group.

Fluid Output Quantity

Choose up to 12 separate fluid outputs

Pump Output Size

Pumps are available in three sizes with either adjustable or fixed pump stroke output.

- 20µL per stroke pump
- 40µL per stroke pump
- 60µL per stroke pump

Pump Output Type

Pumps can be configured to deliver two types of output.

- *Fluid-only*
- *Fluid/Air mixture* (controlled with metering screw or external pressure regulator)

Fluid Supply

- 16 oz. integral reservoir
- 32 oz. integral reservoir
- 64 oz. integral reservoir
- Remote pressurized source

Options



Flow sensing
Monitor fluid output with optional sensors.



Pulse R™
Control your system's pumps' cycle rate(s) electronically.



Magnetic Mounting
Mount your system to magnetic surfaces.

Specifications

Supply air pressure	Clean, dry compressed air, 80-100 psi [5.5-7 bar]			
Supply fluid pressure	For systems with a pressurized fluid supply: 15 psi [1 bar] MAX			
Pumps	Pump size (Output at full stroke)	20µL	40µL	60µL
	Output rate	780 mL/hr	1500 mL/hr	1900 mL/hr
	Max cycles per minute*	650	650	540
Air flow rate	0-4.7 SCFM [0-131 LPM] for each air and oil output. 1-2 SCFM [28-56 LPM] typical			
Fluid viscosity	30-5000 SUS/100°F & NLGI Grade 000 - Grade 3 greases**			
Flow sensor	NPN sensor, 5-28VDC			
Pump Timer	Pneumatic pulse generator	Recommended: 5-50 pulses/minute Maximum: 200 pulses/minute (not recommended for continuous operation)		
	Pulse R™	Recommended 5-50 Cycles per minute (Modes 1 & 2 on the Pulse R™) Maximum: 250 cycles/minute		
Direct pump actuation On/Off timer	0.075*** sec MINIMUM			
Operating temperature	32°-122°F [0°-50°C]			
Storage temperature	4°-158°F [-16°-70°C]			

*Cycles per minute based on Coolube® 2210. Consult Unist for other fluid viscosities

**NLGI Grade 0-3 requires grease-specific reservoir

***For remote actuation this time may increase based on length of inlet air hose

NEED MORE INFORMATION?

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