

# Digispense 2000

DIGITAL LIQUID DISPENSER

[www.ivek.com](http://www.ivek.com)

The IVEK Digispense 2000 system provides small volume precision dispensing capability using a positive displacement ceramic piston and cylinder dispense module. This system uses a microprocessor-based controller to drive a linear actuator. The actuator is a patented device that is custom manufactured to deliver extremely repeatable and precise motion. When combined with the precision manufactured ceramic piston and cylinder, repeatability of 0.1% c.v. can be obtained. Additionally, the stepping motor and lead screw combination allows the unit to have a pulse-free linear flow profile, the magnitude of which is digitally selected through the front panel interface. The Digispense 2000 delivers each full stroke of the piston in 2000 steps of the stepping motor, which gives the system exceptional resolution. Volumes from the sub-microliter range up to 2 ml per stroke are standard.



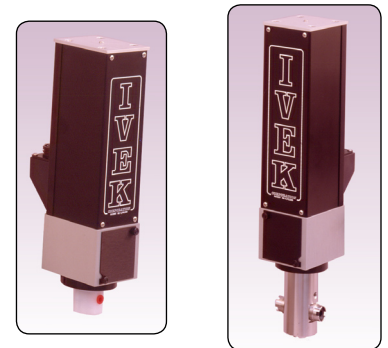
The IVEK Digispense 2000 system consists of three basic modules: the controller, the actuator, and the pump. The controller measures 5" high x 15" wide x 12" deep and weighs approximately 18 pounds. The actuator module measures 11" long x 2 1/2" wide x 3" deep and weighs approximately 5 pounds.

## PUMP MODULE

- **SAPPHIRE-HARD 99.8%  $Al_2O_3$  OR HIGHLY POLISHED YTZP ZIRCONIA PISTON AND CYLINDER SETS**
- **PISTON SIZES: 4A (20 $\mu$ l CAPACITY AND 0.010 $\mu$ l RESOLUTION); 3A (50 $\mu$ l CAPACITY AND 0.025 $\mu$ l RESOLUTION); 2A (100 $\mu$ l CAPACITY AND 0.050 $\mu$ l RESOLUTION); A (200 $\mu$ l CAPACITY AND 0.10 $\mu$ l RESOLUTION); B (400 $\mu$ l CAPACITY AND 0.20 $\mu$ l RESOLUTION); C (1000 $\mu$ l CAPACITY AND 0.50 $\mu$ l RESOLUTION); D (2000 $\mu$ l AND 1.0 $\mu$ l RESOLUTION)**
- **WIDE VARIETY OF STANDARD FITTINGS, CUSTOM DESIGNED FITTINGS AVAILABLE.**
- **CLEAR END CAP ALLOWS VISUAL INSPECTION OF THE PUMP CHAMBER (A-SERIES)**
- **WETTED MATERIALS INCLUDE: CERAMIC, SAPPHIRE/O-RING, OR TEFLON**
- **VARIETY OF O-RING MATERIALS OR TEFLON**
- **EASILY DISASSEMBLED FOR CLEANING**
- **LOW DEAD VOLUME**

## FEATURES

- **HIGH DENSITY CERAMIC PISTON AND CYLINDER**
- **DIGITAL VOLUME ADJUSTMENT**
- **DIGITAL RATE ADJUSTMENT**
- **AUTOMATIC PRIMING**
- **BUBBLE CLEARING MODE**
- **LOW DEAD VOLUME**
- **LOW LIQUID SHEAR**
- **RESISTANT TO ABRASIVES**
- **RESOLUTION TO 2 NANOLITERS/STEP (MICROSTEP OPTION)**
- **LCD DISPLAY OF DISPENSE PARAMETERS**



## CONTROLLER OPTIONS

- **COMPUTER INTERFACE-RS232**
- **PLC INTERFACE (24V STANDARD), (TRIGGER IN, LOAD IN, READY OUT, LOAD REQUIRED)**
- **MICRO STEPPING OPTION**

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C O R P O R A T I O N

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