

# MICROSPENSE AP

## SMALL VOLUME LIQUID DISPENSING & METERING MODULES

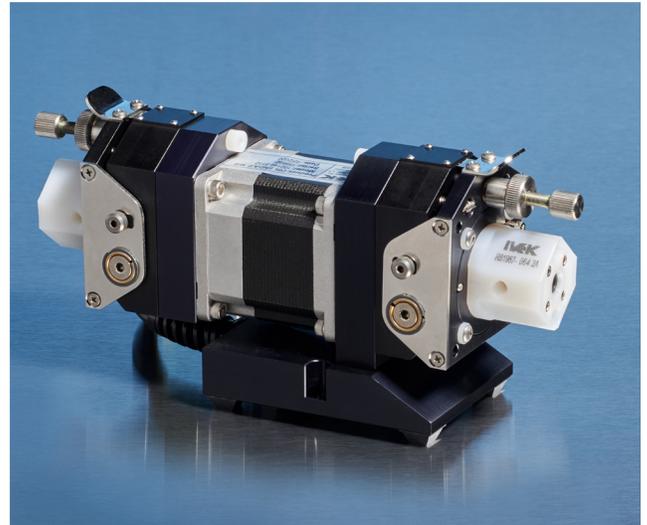
1-800-356-4746

### FEATURES AND BENEFITS

- repeatability to 0.1% CV
- two position volumetric adjustment
- automatic or manual adjustment for priming
- compact and lightweight pump/motor/base module
- displacement range of 0-109 $\mu$ l/stroke with low dead volume
- versatile mounting capabilities
- capable of ejecting liquid volumes as low as 0.3 $\mu$ l
- self-priming
- low liquid shear
- forward and reverse flow
- clean in place capabilities

### TYPICAL APPLICATIONS

- sterile filling and dosing
- diagnostic reagent dispensing
- contact lens dispensing
- UV curable adhesive dispensing
- cyanoacrylate dispensing
- cell suspensions
- fragrance and flavor dispensing
- abrasive liquids
- sub-microliter ejections
- mercury dosing
- electrolyte dispensing
- syringe, vial, needle and catheter coating
- nutritional media additions
- and many more



microspense ap dual end motor/base/pump  
6.9cm x 19.5cm x 10.7cm



microspense ap single end motor/base/pump  
6.9cm x 12.9cm x 10cm



**ISO 9001 CERTIFIED**  
**ISO 13485 CERTIFIED**



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## MICROSPENSE AP SMALL VOLUME LIQUID DISPENSING & METERING MODULES

IVEK's Microspense AP is a precision liquid dispensing pump/motor/base assembly uniquely designed to minimize operator adjustment in single and multi-channel systems, while providing the capability of dispensing small volumes with a high degree of repeatability (0.1%CV).

The motor/base module allows rapid adjustment from a calibrated setting to the full displacement setting and back. Thus, the user can increase the volumetric displacement of the pump (prime/clean) and automatically return to a pre-calibrated displacement setting (dose/meter). This greatly reduces operator time when setting up the systems parameters. The system also includes patented adjustments that enhance the ability of the pump to eject low volumes, eliminating the need to "touch off".

### CERAMIC PUMP MODULE FEATURES:

- positive displacement piston cylinder design made from 99.8% alumina oxide ( $Al_2O_3$ ) or zirconia (mgO partially stabilized TTZ)
- available in three sizes: "A" (0-109 $\mu$ l), "2A" (0-54 $\mu$ l), "3A" (0-27 $\mu$ l)
- case material: Tefzel (other material available on a custom basis)
- port connections:  $\frac{1}{4}$  - 28 UNF.2-B or  $\frac{5}{16}$  - 24 UNF.2-A
- wetted materials include ceramic, electromeric o-ring/sapphire or Teflon
- Teflon end seals are available for CIP applications

### VOLUMETRIC OUTPUT FOR PUMP MODULES:

| SIZE | MAXIMUM DISPLACEMENT PER STROKE |
|------|---------------------------------|
| 3A   | 27 $\mu$ l                      |
| 2A   | 54 $\mu$ l                      |
| 1A   | 109 $\mu$ l                     |

IVEK's ceramic piston/cylinder modules are extremely hard and resist abrasion, resulting in a system that exhibits little to no wear even after hundreds of millions of cycles. In addition, the ceramics are compatible with most acids and bases. The natural crystalline structure of the ceramics displays zero porosity, which insures zero retention and carry-over of one biological fluid to the next.



piston/cylinder sets

### PRECISION ENGINEERED FLUIDIC SOLUTIONS SINCE 1979

IVEK Corporation is committed to quality and customer support. Our product has always been relied upon for critical applications and our policy states customer satisfaction as the number one priority. As our customer you will experience exceptional performance and reliability for your most demanding applications. IVEK Corporation is ISO 9001 and ISO 13485 certified.



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