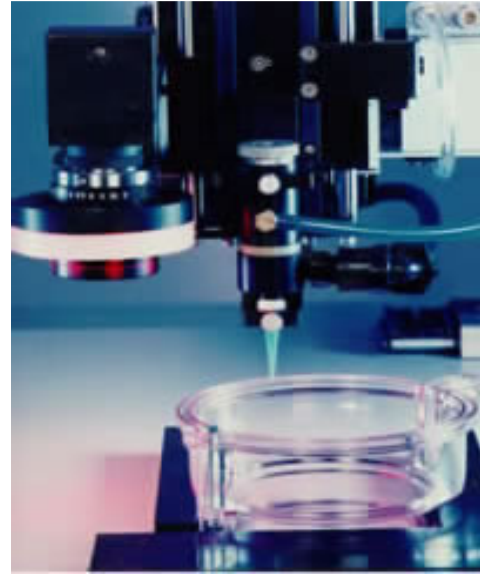


DV-07

Adjustable Liquid Metering Valve

Features and Benefits

- **Stroke adjustment for control of fluid flow rate**
- **Fail-safe positive shutoff prevents valve dripping**
- **Low maintenance**
- **Accurate, reliable dispensing of low-to-medium viscosity fluids**



The DV-07 is a normally closed, air actuated diaphragm valve. This valve is designed for accurate, reliable dispensing of low to medium viscosity fluids. It is suitable for a variety of applications, from microdots to volume filling. Typical fluids include fluxes, reagents and paints. The DV-07CA valve has an ultra high molecular weight (UHMW) polyethylene valve head, ideal for dispensing acid-based fluids and reactive adhesives such as cyanoacrylates.

The DV-07 valve has an adjustable diaphragm for precise flow control. The flexible diaphragm provides millions of dispensing cycles without wear. For maximum precision, you can control the amount of fluid dispensed by varying the fluid pressure, stroke adjustment, and selecting the appropriate dispense tip.

The DV-07 valve dispenses fluid when the input air pressure acts on the piston, retracting the diaphragm a preset distance, which is determined by the stroke adjustment. A second source of air forces fluid to flow. When the air pressure to the valve is removed, the valve-mounted quick exhaust provides an outlet for air built up in the chamber. The diversion of the air in the chamber permits the diaphragm to quickly shift into the closed position. This feature allows fast on/off operation and

creates a positive shutoff effect at the end of the dispense cycle, ensuring clean fluid cutoff and preventing valve dripping. The DV-07 valve has fail-safe positive shutoff that is independent of the air or fluid pressure. If there is power loss or a hose becomes dislodged during production, the valve diaphragm will automatically close, stopping the fluid flow.

The DV-07 valve can be maintained by periodically purging it with a cleaning agent compatible with the components of the system and the fluid being dispensed. To clean the valve head or replace parts, you can remove the two valve head mounting screws for easy access to the wetted components of the valve.

Solder and brazing pastes or other fluids that contain solid particles are not recommended for use with the DV-07 valve. Please call us for more information regarding your specific fluid and assembly requirements.

See the diagram and specifications on the back for more details.

Specifications: DV-07 Adjustable Liquid Metering Valve

Size:

78.5 x 26.97 mm (3.09 x 1.06 in.)

Weight:

122 gm (4.3 oz.)

Fluid Inlet Thread:

1/8 NPT Female

Fluid Outlet Thread:

1/4-28 UNF

Free-Flow Orifice:

2.54 mm (0.10 in.)

Maximum Fluid Pressure:

483 kPa (70 psi) 14.8 Bar

Air Pressure Required:

483-621 kPa (70-90 psi)
(4.8-6.2 Bar)

Diaphragm Stroke:

0.80 mm (0.03 in.) nominal

Output Variation:

±1.0% nominal
(viscosity dependent)

Valve Construction:

Piston and Piston Rod:

Type 303 stainless steel

Cylinder Body:

Hard-coated aluminum

Diaphragm:

UHMW polyethylene

Valve Head:

DV-07: Acetal copolymer

DV-07CA: UHMW polyethylene

Wetted Parts:

Valve Head and Diaphragm w-07:

Acetal copolymer

UHMW polyethylene

DV-07CA:

UHMW polyethylene



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