

## HM



## Dispensing Smallest Volumes of Hotmelt Adhesives

**LIQUIDYN's hotmelt** dispensing valves are designed for the contactless dispensing of hotmelt adhesives. With this technology very small amounts of hotmelt adhesive can be dispensed very quickly, accurately and without contact. The dispensing results are process reliable and reproducible. Like all LIQUIDYN products the hotmelt valves are characterised by a robust design, an easy maintenance and a long service life.

### Dispensing Advantages

- reproducible dispensing processes
- high accuracy
- volumetric dispensing
- very small dispensing volumes
- very high dispensing frequency
- very easy handling and maintenance
- driven with low voltage
- closed when idle (NC)
- minimal dead space volume
- resistant to acids, alkalis and solvents

### Typical Dispensing Products

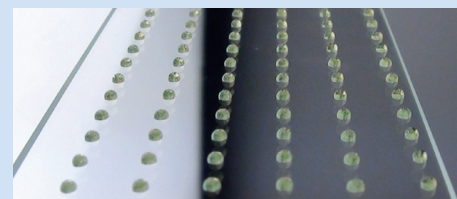
active and reactive hotmelt adhesives, silicones, epoxy resins and wax

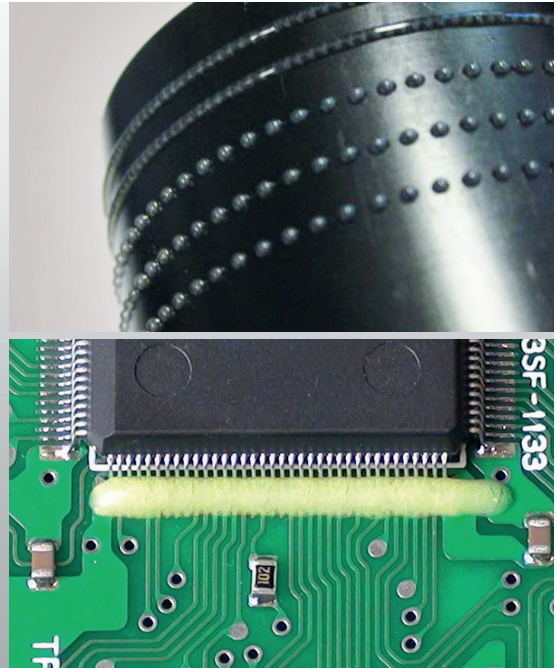
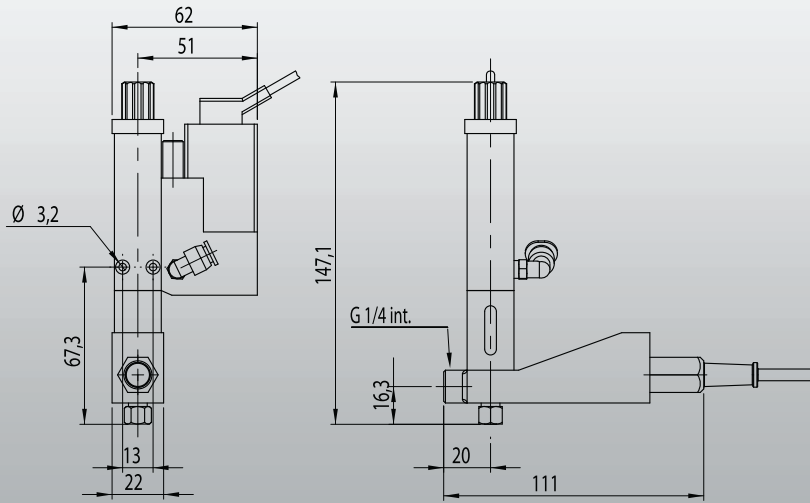
### Main Industries

Machine Building, Automobile, Packaging, Furniture, Medical and Electronics Industry

### Highlight

Dispensing very small drops of hotmelt adhesive with high repeatability.





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## Contactless Dispensing of Hotmelt Adhesives – Safe and Easy

With the LIQUIDYN hotmelt valves, fluid, viscous and pasty materials can be applied in dot-, bead- or line shape at a working temperature of up to 200°C. Depending on the dispensing material used the definable dot diameters reach from 0.4 to 5 mm. The achievable dispensing volumes are between 3 nl and infinity and can be flexibly adjusted when the jet forming dispensing technology is used. The distance between the valve and the building part is generally between 2 to 10 mm. Even dispensing processes which are more demanding – due to part or position tolerances – can be carried out safely and easily with the contactless dispensing technology.

**Functionality:** The electro-pneumatically operated valve triggers below 1 ms and closes automatically after each triggering signal. The valve is closed when idle (NC). The dispensing needle remains open as long as the valve is triggered. Afterwards the valve closes automatically.

### Technical Specifications

**Valve Type:** NC (closed when idle)

**Dispensing Volumes:** 3 nl to infinity

**Viscosity Range:** 0.5 – 200,000 mPas (thixotrop)

**Accuracy:** > 99 % (dispensing tolerance < 1 %)

**Frequency:** up to 280 shots / sec. (280 Hz)

**Dispensing Product Pressure:** 0.2 to 6 bars  
(up to 100 bars)

**Operating Medium:** compressed air, oil-free,  
filtered (filter rating 40 µm)

**Working Pressure:** 2 to 8 bars

**Switching Time:** < 1 ms to ∞

**Actuation:** 24 V, PLC-compatible

**Service Life:** > 100 000 000 cycles

**Weight:** 270 g

**Ambient Temperature:** -5 to +40 °C

**Drive:** electro-pneumatic

**Design:** robust design for industrial use, Protection Class 2,  
splashproof in accordance with IP 65