

# Liquidyn P-Dot Series Pneumatic Jet Valve

High-precision micro-dispensing: reliable, fast and user-friendly



The high-performance Liquidyn P-Dot valve provides both non-contact and contact dispensing capability.

The Liquidyn® P-Dot is a high performance jet valve designed for the non-contact micro-dispensing of medium- to high-viscosity fluids, including oils, greases, adhesives, silicones, lacquers, fluxes, and medical and chemical substances. Depending on the material, the valve can dispense dot diameters ranging in size from 0.3 to 5 mm. The distance between the valve and the substrate is usually between 2 and 10 mm.

The Liquidyn P-Dot valve's fluid-carrying components are separate from the actuator, allowing them to be quickly and easily exchanged. This modular design makes fluid-type changeout and component replacement fast and easy.

Electro-pneumatically operated by a low voltage pulse signal, the valve can be operated using either a Liquidyn valve controller or a customer-supplied high-level controller, such as a PLC. The valve switches below 1 ms and automatically closes after each trigger signal. The valve is closed when idle (NC: normally closed).

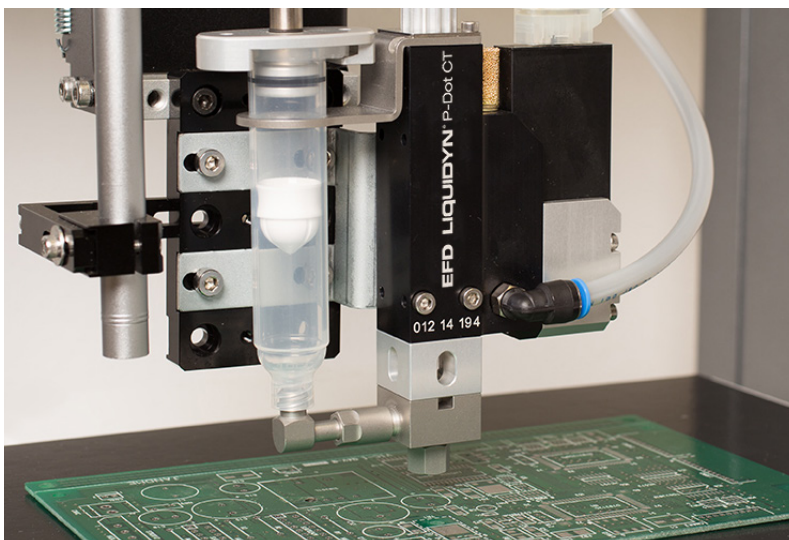
Even the most demanding or delicate processes — whether due to product complexity or positional tolerances — are easy to implement with Liquidyn P-Dot valve non-contact dispensing.

## Features

- Suitable for highly viscous fluids
- Dispensing volume starting at 3 nL
- Dispensing frequencies as high as 150Hz
- Bead or line dispensing capability
- Low voltage operation (24 VDC)
- Modular design
- 3D dispensing

## Benefits

- High repeatability and high accuracy provide very consistent dispensing results for higher productivity.
- Interchangeable components mean quick changeout of fluid types and easy service and maintenance.
- IP65-compliant construction makes the valve dust-proof and wash-down friendly.



High repeatability and high accuracy provide very consistent dispensing results.



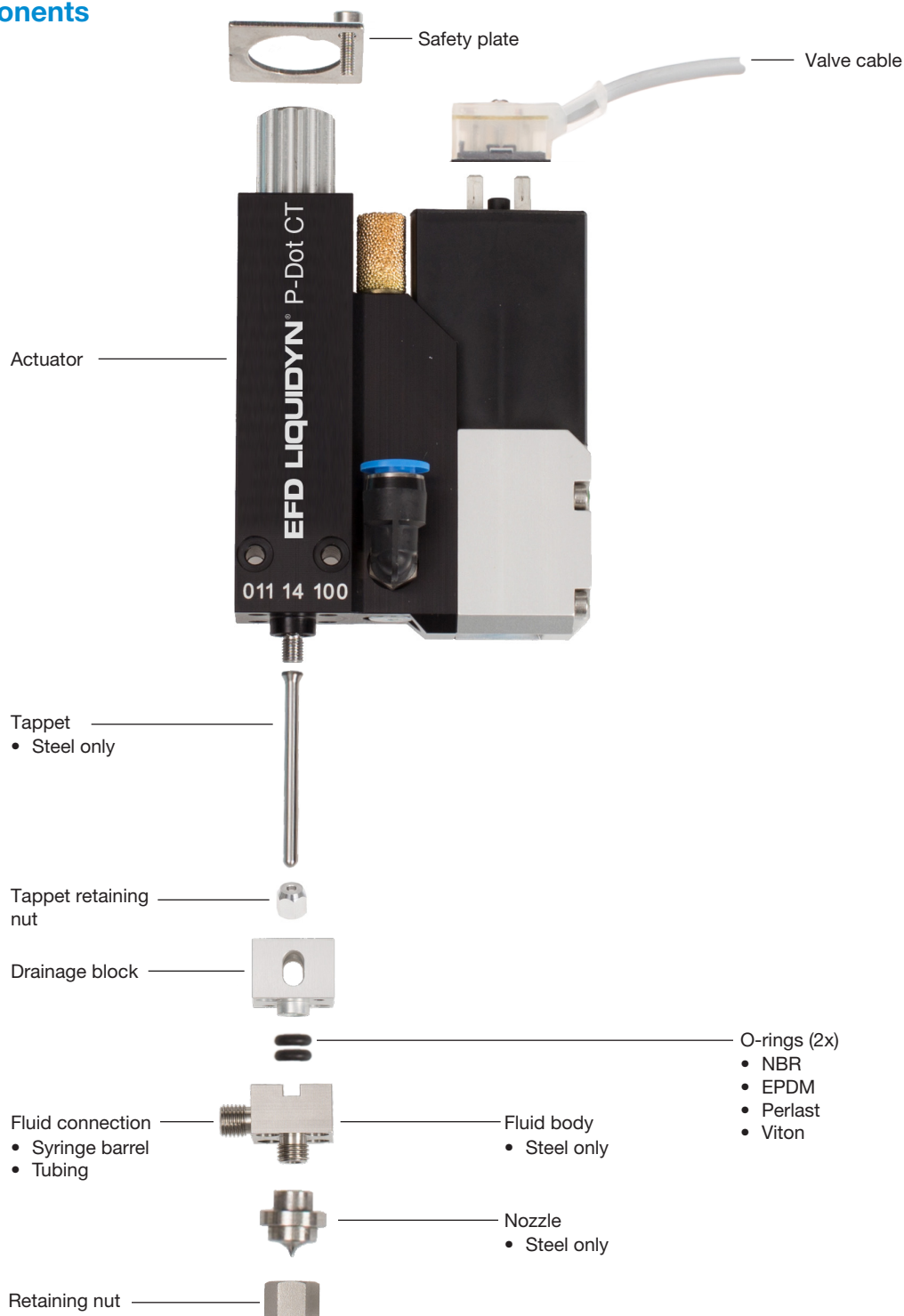
more info



# Configure your modular Liquidyn P-Dot micro-dispensing valve

The Liquidyn P-Dot micro-dispensing valve can be uniquely configured to achieve the best dispensing result for your material and application. A Nordson EFD application specialist will help select the best valve system components for optimal jetting performance.

## Select the components



If the material needs to be heated for better dispensing, select a nozzle heater.

Partial listing of component selections. Consult EFD for full listing of available components



### Actuator

Part #	Description
7825002	Liquidyn P-Dot CT Actuator



### Basic Components

Part #	Description
7825008	Drainage block
7825033	Tappet P-Dot 27L x 2.0D mm, steel
7825034	Tappet nut P-Dot
7825037	Steel fluid body
7825182	2.5 m (8.2 ft) M8 valve cable
7826082	O-rings (between the tappet and fluid body), Perlast® (5 pack)
7826084	O-rings (between the tappet and fluid body), Viton® (5 pack)
7826085	O-rings (between the tappet and fluid body), Viton (50 pack)



### Nozzles

Part #	Description
7825042	Hexagon retaining nut
7825063	Steel flat nozzle, 150 µm
7825075	Steel needle nozzle, 150 µm



### Fluid Supply

Part #	Description
7825120	Steel luer lock adapter for syringe barrels
7825138	Steel tube connector for 6 mm OD tubing

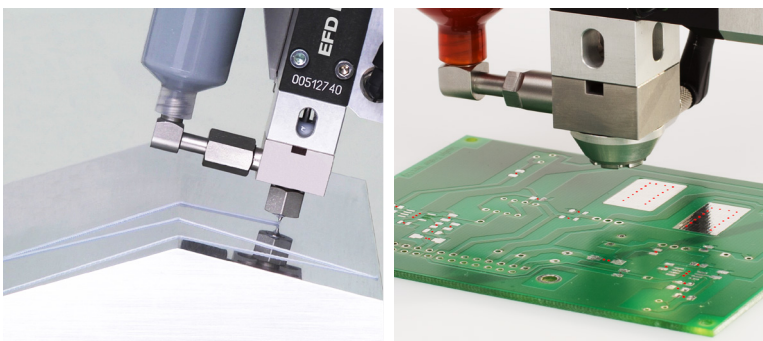
The optimum valve configuration will be determined through an initial dispensing test.

## Specifications

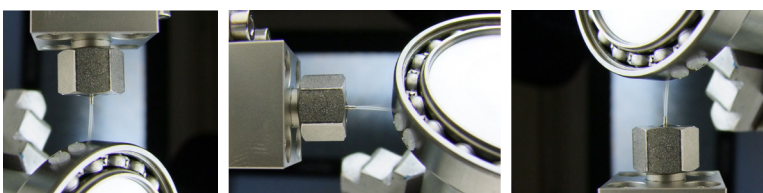
Item	Specification
Size	38.6w x 126.7h x 61L mm (1.5w x 5h x 2.4L")
Weight	270.0 g (9.5 oz)
Maximum fluid pressure	100 bar (1450 psi)
Fluid inlet	M8 x 1, flat sealing
Mounting	M3 x 25
Maximum operating frequency	150Hz
Pulse time	2 ms
Input air pressure	2–5 bar (29–73 psi)
Fluid body	303 stainless steel
Heater body	Aluminum
Approvals	CE*, UKCA, TUV
Warranty	1 year, limited

All stainless steel parts are passivated.

\*This valve meets the EN 61326-1:2013, FCC Part 15 Subpart B, and ICES-003 Issue 6 product family standard for immunity and emissions when connected to a Nordson EFD Liquidyn controller. Usage with any other controller does not guarantee electromagnetic compatibility (EMC) performance.



Non-contact micro-dispensing of beads and fills onto hard-to-access or delicate surfaces is easy and repeatable.



Jet lines or beads onto uneven surfaces from any direction.

## Flexible Mounting Options

The Liquidyn P-Dot valve provides three-dimensional (3D) dispensing for jetting into difficult-to-access areas and onto uneven or unusual surfaces. This mounting flexibility, along with a small footprint, makes it ideal for installation into tight spaces.

## Valve Control

The valve can be operated using a Liquidyn valve controller or directly by the customer via a 24V input (for example, from a customer-supplied controller or a PLC). Using a Nordson EFD controller offers the following advantages:

- Increased production output
- End user convenience
- On-the-fly adjustability
- Maximum machine efficiency

## Request a Process Evaluation

Contact Nordson EFD to configure a complete Liquidyn P-Dot valve non-contact dispensing system that meets your specific needs, with:

- A detailed process evaluation by experienced fluid dispensing experts at one of our full-service Global Application Labs.
- Samples processed for customer evaluation and approval prior to purchase.



For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to [www.nordsonefd.com](http://www.nordsonefd.com).

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