

Liquidyn P-Dot Series Pneumatic Jet Valve

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



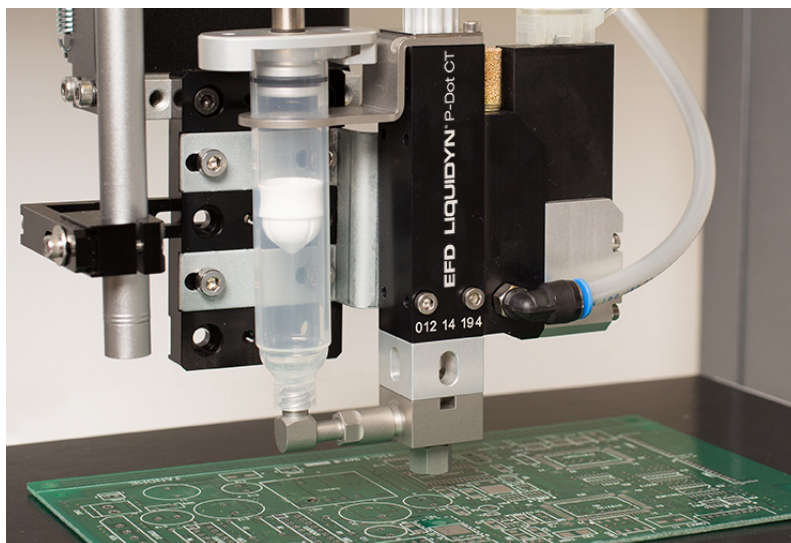
The Liquidyn® P-Dot is a high performance jet valve designed for the non-contact micro-dispensing of medium- to high-viscosity fluids, including oils, greases, adhesives, silicones, lacquers, fluxes, and medical and chemical substances. Depending on the material, the valve can dispense dot diameters 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.

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



High repeatability and high accuracy provide very consistent dispensing results.

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.



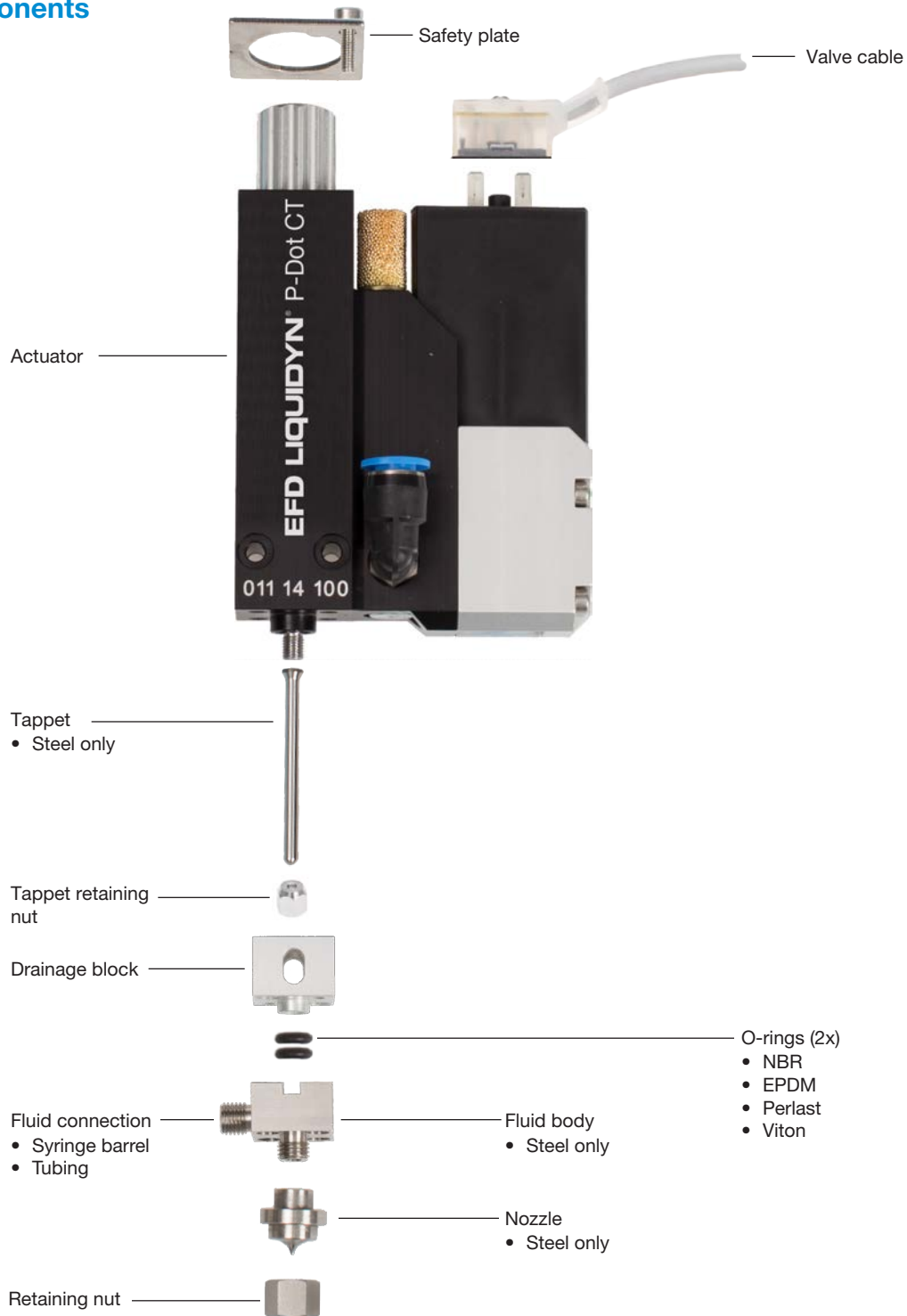
more info



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 |
| 7825011 | Safety plate |
| 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 |
| 7826080 | O-rings (between the tappet and fluid body), EPDM (5 pack) |
| 7826081 | O-rings (between the tappet and fluid body), EPDM (50 pack) |
| 7826082 | O-rings (between the tappet and fluid body), Perlast® (5 pack) |
| 7826083 | O-rings (between the tappet and fluid body), Perlast (50 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) |
| 7826092 | O-rings (between the tappet and fluid body), NBR (5 pack) |
| 7826093 | O-rings (between the tappet and fluid body), NBR (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 |
| 7825137 | Steel tube connector for 4 mm OD tubing |
| 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 | 38.6 _w x 126.7 _H x 61 _L mm (1.5 _w x 5 _H x 2.4 _L ") |
| 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*, 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.

Global

800-556-3484; +1-401-431-7000
info@nordsonefd.com

Europe

00800 7001 7001
infoefd.europe@nordsonefd.com

Asia

China: +86 (21) 3866 9006; china@nordsonefd.com
India: +91 80 4021 3600; india@nordsonefd.com
Japan: +81 03 5762 2760; japan@nordsonefd.com
Korea: +82-31-736-8321; korea@nordsonefd.com
SEAsia: +65 6796 9522; sin-mal@nordsonefd.com

©2021 Nordson Corporation v091321