

PICO *Pulse* Contact Dispense Valve

The Latest Advance in Precision Contact Dispensing Technology



The PICO *Pulse* contact dispense valve provides precise, high-speed dispensing.



Dispense micro-deposits as small as 0.5 nL.



Tool-free latch simplifies serviceability, reduces downtime.

The PICO *Pulse*[®] contact dispense valve delivers faster, more precise dispensing with less turbulence for greater fluid deposit consistency, placement, and process control. Dispense micro-deposits as small as 0.5 nL at up to 1000Hz continuous with up to 1500Hz maximum bursts* – an industry best in class.

Variable stroke provides better stroke control, making it possible to set very exact, repeatable deposit quantities. Improved close time, in addition to faster full stroke open time, make *Pulse* one of the most robust piezo dispensing valves on the market.

Its innovative tool-free latch mechanism allows easy removal of wetted parts for fast, simplified serviceability and maintenance. Its modular design and exchangeable parts make it possible to dispense a wider variety of fluids with low to high viscosities. This makes it suitable for a wider range of applications to meet changing dispensing demands as your business grows.

Features

- Uniquely designed tip adapter assemblies for high-speed, accurate contact needle dispensing with a variety of dispensing tips.
- Exchangeable, modular design for greater configurability.
- Tool-free latch for easy removal of fluid body.
- Variable stroke for precise dispensing control.
- Makes micro-deposits as small as 0.5 nL.
- Dispenses at up to 1000Hz continuous, with up to 1500Hz max bursts.*

*With approved conditional settings.

Benefits

- Apply extremely small dots and well-defined lines with precise control of the beginning and end points.
- Highly precise, repeatable, and faster contact dispensing.
- Capability for high speed actuation.
- Ideal for critical line dispensing.
- Tool-free latch allows fast, easy serviceability and reduces downtime.
- Improved thermal performance for greater viscosity stabilization.

| Part # | Description |
|---------|--|
| 7362059 | PICO <i>Pulse</i> Contact Dispense Valve |



more info



Specifications

| Item | Product |
|------------------------|--|
| Size | 22w x 120H x 75L mm (0.9w x 5H x 2.92L") |
| Weight | With tip adapter / with cable: 538 g (19 oz) With tip adapter / without cable: 376 g (13.3 oz) Without tip adapter / with cable: 524 g (18.5 oz) Without tip adapter / without cable: 362 g (12.8 oz) |
| Maximum fluid pressure | 35 bar (500 psi) |
| Fluid inlet | M5 |
| Mounting | M4 x 0.7 |
| Fluid body | 303 stainless steel or PEEK* |
| Ball-and-seat | Ceramic |
| Heater body | Aluminum |
| Tip adapter kits | 303 stainless steel |
| Approvals | CE, UKCA, WEEE, TUV |
| Warranty | 1 year, limited |

*Polyetheretherketone

Automated Dispensing Systems

Nordson EFD automated dispensing systems deliver market-leading repeatability and accuracy in fluid placement and positioning. Specialized dispensing software simplifies setup and programming. Optimize dispensing results with features such as laser height sensing and smart vision CCD cameras.

Request a Process Evaluation

Contact Nordson EFD to configure a complete PICO piezoelectric dispensing system that meets your specific application 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

The complete system requires a PICO *Pulse* valve, PICO *Touch* controller, and fluid reservoir.

PICO *Touch* Controller

The *Touch* controller uses an intuitive touchscreen interface to greatly simplify setup and operation, while allowing precise adjustment of parameters such as open and close times.

- Set the valve operating temperature
- Fine-tune the dispensing performance, select preset ramp profiles, or use custom profiles
- View or change all controller settings



PICO Pulse Valve Technology

Configure your modular, exchangeable PICO Pulse contact dispense valve in five easy steps.



Step 1. Select the piezo actuator for contact dispensing, Part # 7362059

This actuator provides three holes in the heater block for installation of the tip adapter assemblies. The holes are reinforced with helical inserts to reduce the risk of thread-stripping.

Step 2. Select your fluid body assembly

A wide range of fluid body assemblies with flat nozzles are available in seat orifice sizes ranging from 50-600 microns with a choice of Type D and Type E geometries to meet the exacting requirements of your applications. Fluid body assemblies with PEEK* wetted parts are available for reactive adhesives, such as anaerobics.

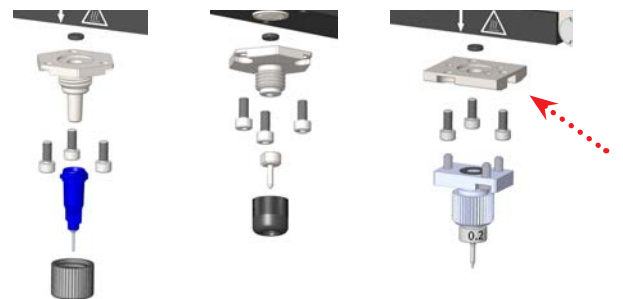
Serial numbers make it easy to identify matched sets of cartridges and fluid bodies. Etched lines make it easy to align the cartridge and fluid body quickly and accurately for optimal performance.

*Polyetheretherketone



Step 3. Select your fluid inlet fitting

Choose from a variety of fluid inlet fittings including luer lock, barb, and compression fitting types to match the fluid reservoir type selected. Nordson EFD offers a complete selection of reservoirs from 3cc to 70cc Optimum® syringe barrels and cartridges to tank reservoir systems.



Step 4. Select your tip adapter

Three uniquely designed tip adapter assemblies are available to attach Nordson EFD general purpose and specialty tips, standard luer lock tips, DL Technology precision tips, and other tip adapter kits.



Step 5. Select your extension cables for connection to the PICO® Touch™ Controller

Choose either 0.6 m, 2 m, 6 m, or 9 m extension cable sets that include both power and communication cables.

Do not exceed the maximum extension cable length of 9 m (30 ft). Doing so will adversely affect communication between the valve and the controller.



PICO Pulse Modular, Exchangeable System Parts

Partial listing of exchangeable components only. Consult EFD for full listing of available parts.

PICO Pulse Fluid Body Assemblies

A Nordson EFD application specialist will help select the best fluid body assembly for optimal dispensing performance.



Standard fluid body assembly



PEEK fluid body assembly

| Standard Nozzle Part # | PEEK Nozzle Part # | Description | Orifice | Geometry | Ball Size |
|------------------------|--------------------|---------------------|---------|----------|-----------|
| 7362574 | 7363321 | Fluid body assembly | 50 µm | E | 3.0S |
| 7362575 | 7363322 | Fluid body assembly | 100 µm | D | 3.0S |
| 7362576 | 7363323 | Fluid body assembly | 200 µm | D | 3.0S |
| 7362577 | 7363324 | Fluid body assembly | 50 µm | E | 5.0S |
| 7362578 | 7363325 | Fluid body assembly | 100 µm | E | 5.0S |
| 7362579 | 7363326 | Fluid body assembly | 150 µm | E | 5.0S |
| 7362580 | 7363327 | Fluid body assembly | 300 µm | E | 5.0S |
| 7362581 | 7363328 | Fluid body assembly | 100 µm | D | 5.0S |
| 7362582 | 7363329 | Fluid body assembly | 150 µm | D | 5.0S |
| 7362583 | 7363330 | Fluid body assembly | 200 µm | D | 5.0S |
| 7362584 | 7363331 | Fluid body assembly | 300 µm | D | 5.0S |
| 7362585 | 7363332 | Fluid body assembly | 400 µm | D | 5.0S |
| 7362586 | 7363333 | Fluid body assembly | 600 µm | D | 5.0S |

Fluid Inlet Fittings



| Part # | Description |
|---------|--|
| 7362606 | Fitting: M5 x female Luer lock, straight, stainless steel (includes Viton® O-ring) 7361303: O-rings: 5 x 1 mm, Viton, 10 pc 7361681: O-rings: 5 x 1 mm, FFKM, 3 pc |
| 7363340 | Fitting: M5 x female luer lock, straight, PEEK (includes FFKM O-ring) 7361303: O-rings: 5 x 1 mm, Viton, brown, 10 pc 7361681: O-rings: 5 x 1 mm, perfluoroelastomer (FFKM), black, 3 pc |
| 7020669 | Fitting: M5 x 3/32" ID barb, stainless steel |
| 7021919 | Fitting: 10-32 UNF x 3/32" barb |
| 7020671 | Fitting: M5 x 1/8" ID barb, stainless steel |
| 7020673 | Fitting: M5 x 1/8" ID barb, stainless steel, elbow |
| 7361498 | Fitting: M5 x 35 mm male-female extension, stainless steel |

Accessories



| Part # | Description |
|---------|---|
| 7361295 | Valve cleaning kit (includes brushes, cotton swabs, mini-reamers, and a magnifying loupe) |
| 7361630 | Latch release tool (opens the piezo actuator heater body; useful for installations with limited side access to the valve) |



Tip Adapter Kits



| Part # | Description |
|---------|---|
| 7362028 | Luer lock tip adapter kit for EFD General Purpose dispense tips |
| 7362030 | DL Technology tip adapter kit |
| 7361969 | Specialty plate adapter kit for legacy accessories |



Valve Extension Cables



| Part # | Description |
|---------|--|
| 7362085 | 0.6 m (2.0 ft) valve extension cable set |
| 7361298 | 2 m (6.6 ft) valve extension cable set |
| 7361299 | 6 m (19.7 ft) valve extension cable set |
| 7361300 | 9 m (29.5 ft) valve extension cable set |



For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to www.nordsonefd.com.

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