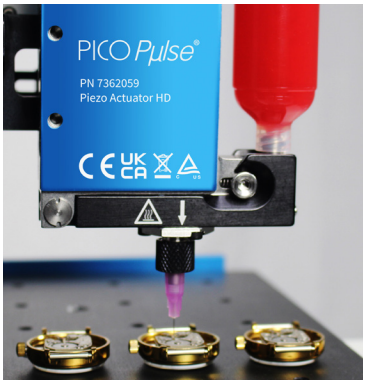
PICO *Pµlse* Contact Dispense Valve

The Latest Advance in Precision Contact Dispensing Technology

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



Dispense micro-deposits as small as 0.5 nL.

Tool-free latch simplifies serviceability, reduces downtime.

Part #	Description
7362059	PICO *Pµlse* contact dispense valve
7366526	PICO *Pµlse* XP contact dispense valve

more info

The PICO *Pµlse*® 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 *Pµlse* 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.

Nordson EFD

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

Nordson EFD

PICO *Pμlse* Valve Technology

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

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

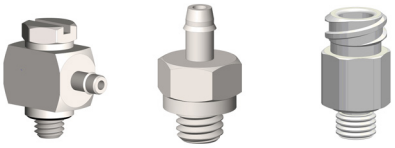
This actuator provides three holes in the heater block for installation of the tip adapter assemblies. The holes are reinforced with helical inserts to reduce the risk of thread-stripping.

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 avialable for reactive adhesives, such as anaerobics.

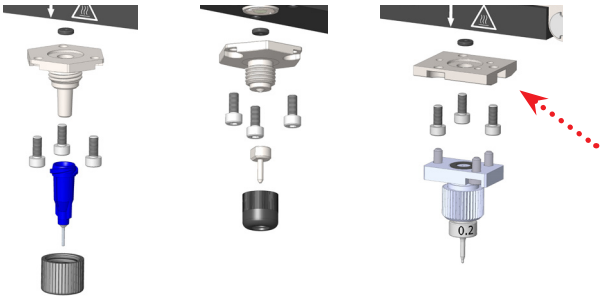
Serial numbers make it easy to identify matched sets of cartridges and fluid bodies. Etched lines make it easy to align the cartridge and fluid body quickly and accurately for optimal performance.

*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® *Toμch*™ 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.

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PICO *Pµlse* Modular, Exchangeable System Parts

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

PICO *Pµlse* 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	n/a	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	n/a	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
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
	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

Nordson

EFD

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

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