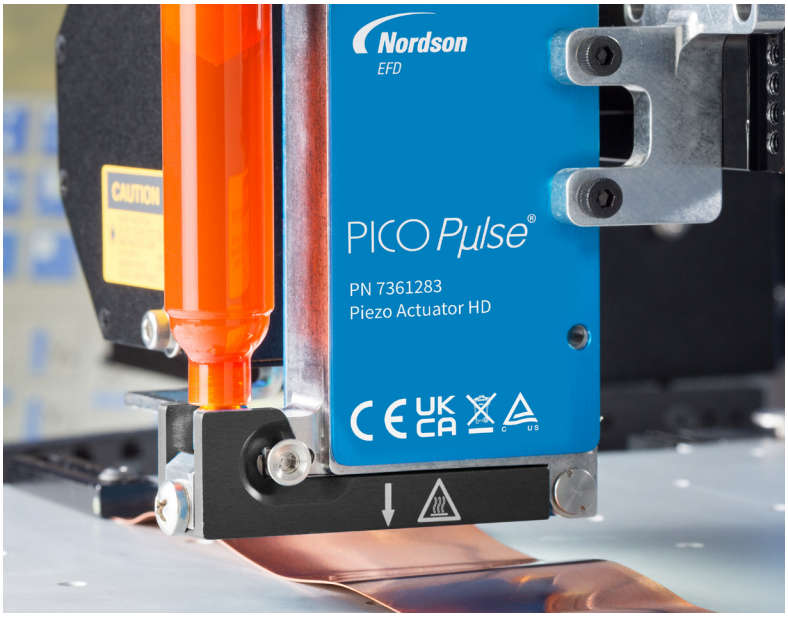
PICO *Pulse* Jet Valve System

The Latest Advance in Precision Jetting Technology



Jet lines onto uneven surfaces with greater precision.

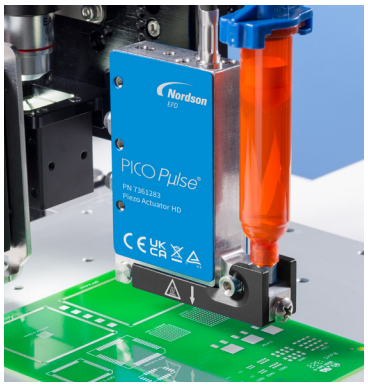
The PICO *Pulse*® non-contact jet valve delivers faster, more precise dispensing over smooth and uneven surfaces with less turbulence for greater fluid deposit consistency, placement, and process control. Dispense micro-deposits as small as 0.5 nL at up to 1000Hz continuous with up to 1500Hz maximum 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 jet 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, so it can meet changing dispensing demands as your business grows.



The PICO *Pulse* valve removes the barrier between speed and accuracy.



Jet UV-cure adhesives onto printed circuit boards with greater repeatability.

Features

- 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 maximum bursts.*

*With approved conditional settings.

Benefits

- Capability to jet low- to high-viscosity fluids provides the flexibility to meet changing dispensing needs.
- Tool-free latch allows fast, easy serviceability and reduces downtime.
- Industry-leading accuracy in deposit consistency, repeatability, and placement.
- Eliminates Z-axis movement for significantly faster production speeds.
- Improved thermal performance for greater viscosity stabilization.

Part #	Description
7361283	PICO *Pulse* Jet Valve HD

more info

Nordson EFD

Specifications

Item	Product
Size	22W x 120H x 75L mm (0.9W x 5H x 2.92L")
Weight	With cable: 524.0 g (18.5 oz) Without cable: 362.0 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
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 *Pµlse* Jet Valve Technology

Configure your modular, exchangeable PICO *Pµlse* jet dispensing valve in four easy steps.



Step 1. Select your piezo actuator

Heavy duty actuator for high-duty use in noncontact dispensing applications.

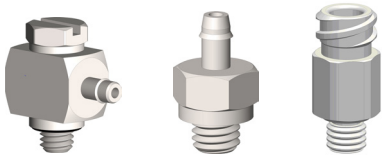
Step 2. Select your fluid body assembly

A wide range of fluid body assemblies are available with flat or extended nozzles 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 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.

Flat Nozzle Fluid Body Assemblies



Standard fluid body assembly



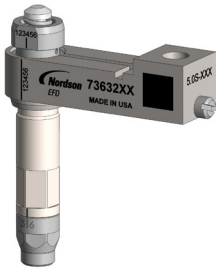
PEEK fluid body assembly

Standard Nozzle Part #	PEEK Nozzle Part #	Description	Orifice	Geometry	Ball Size
7361725	n/a	Fluid body assembly	50 µm	E	3.0S
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

Extended Nozzle Fluid Body Assemblies



P7 fluid body assembly



P30 fluid body assembly

P7* Nozzle Part #	P30** Nozzle Part #	Description	Orifice	Geometry	Ball Size
7362703	n/a	Fluid body assembly	50 µm	E	3.0S
7362704	n/a	Fluid body assembly	100 µm	D	3.0S
7362705	n/a	Fluid body assembly	200 µm	D	3.0S
7362706	7363238	Fluid body assembly	50 µm	E	5.0S
7362707	7363239	Fluid body assembly	100 µm	E	5.0S
7362708	7363240	Fluid body assembly	150 µm	E	5.0S
7362709	7363241	Fluid body assembly	300 µm	E	5.0S
7362710	7363242	Fluid body assembly	100 µm	D	5.0S
7362711	7363243	Fluid body assembly	150 µm	D	5.0S
7362712	7363244	Fluid body assembly	200 µm	D	5.0S
7362713	7363245	Fluid body assembly	300 µm	D	5.0S
7362714	7363246	Fluid body assembly	400 µm	D	5.0S
7362715	7363247	Fluid body assembly	600 µm	D	5.0S

*P7 nozzles extend 7 mm from the standard flat nozzle length.
**P30 nozzles extend 30 mm from the standard flat nozzle length.

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

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Extended Cone Nozzle Fluid Body Assemblies



P7 cone nozzle fluid body assembly



P30 nozzle cone fluid body assembly

P7* Nozzle Part #	P30** Nozzle Part #	Description	Orifice	Geometry	Ball Size
7366300	n/a	Fluid body assembly	50 µm	E	3.0S
7366301	n/a	Fluid body assembly	70 µm	E	3.0S
7366302	n/a	Fluid body assembly	50 µm	E	5.0S
7366303	7366306	Fluid body assembly	70 µm	E	5.0S
7366304	7366307	Fluid body assembly	100 µm	E	5.0S
7366305	7366308	Fluid body assembly	150 µm	E	5.0S

*P7 nozzles extend 7 mm from the standard flat nozzle length.
**P30 nozzles extend 30 mm from the standard flat nozzle length.

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
7361645	Flat washers, M5 fitting, EPDM, 10 pc (for legacy M5 fittings)

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)

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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