Consistent, precise 781S spray valve systems.

activators coatings grease inks liquid fluxes oils silicones solvents



"In manufacturing, reliability is everything. That's what we get from Nordson EFD valves. If all our equipment worked as well... our jobs would be easier."

—Ford Motor Company

The 781S Series Low Volume Low Pressure (LVLP) spray systems provide consistent coating of low to medium viscosity fluids.

Microliter to milliliter amounts can be reliably dispensed in round patterns with diameters ranging from 4.3 to 50.8 mm (0.17" to 2.0") and in fan patterns with widths up to 165.1 mm (6.5").

The combination of adjustable fluid flow, adjustable nozzle air and post-air cutoff provides excellent spray control.

The system includes compact spray valve, ValveMate™ controller and tank. The controller is set for length of time and air pressure required for precise coverage. Programmable nozzle air delay after each spray cycle keeps the spray nozzle clog-free and reduces maintenance and downtime.





Features

- High transfer efficiency
- No overspray, no mist, no bounce
- Adjustable fluid flow rate
- Extremely consistent area of coverage
- Cycle rate exceeds 400/minute
- Low-maintenance design
- Adjustable nozzle air

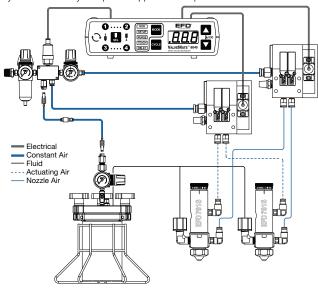
Electronic pdf files of Nordson EFD manuals are also available at www.nordsonefd.com



Spray valve systems



The complete system includes the 781S dispense valve, ValveMate 8040 controller, and the fluid reservoir. Expert technical assistance and high quality standards ensure productive, trouble-free performance. Norson EFD offers a full line of reliable dispensing systems to meet your specific application requirements.



781S Series Valves

The 781S Series valves are used with ValveMate 8040 controllers for precise control of fluids without mist or overspray. Adjustable Low Volume Low Pressure (LVLP) nozzle air transfers fluid from the nozzle to the substrate at low velocity and high transfer efficiency.

Size: 104.6 mm x 26.9 mm diameter (4.12" x 1.06")

Weight: 405.3 g (14.2 oz) for 781S-SS model
235.3 g (8.2 oz) for 781S model

Actuating air pressure required: 70 to 90 psi (4.8 to 6.2 bar)

Maximum input fluid pressure: 300 psi (20.7 bar)

Fluid inlet thread: 1/8 NPT female

Mounting: (1) 1/4-28 UNF tapped hole or adjustable mounting block

Cycle rate: Exceeds 400 per minute

Air cylinder body: 781S-SS: Type 303 stainless steel

781S: Hard-coated aluminum

Fluid body: 781S-SS: Type 303 stainless steel

781S: Hard-coated aluminum

Air cap: Type 303 stainless steel **Piston:** Type 303 stainless steel

Needle and nozzle: Type 303 stainless steel

Needle packings: Teflon®

All stainless steel parts are passivated.

Spray Area Coverage

				Nozzie distance from surface							
Aluminum	nozzle	diameter		mm	inches	mm	inches	mm	inches	mm	inches
model #	mm	inches	pattern	25.4	1"	50.8	2"	76.2	3"	152.4	6"
781S	1.1	0.046"	round	6.3	0.25"	12.7	0.50"	19.0	0.75"	38.1	1.50"
781S-28	0.7	0.028"	round	5.0	0.20"	10.1	0.40"	15.2	0.60"	30.4	1.20"
781S-14	0.3	0.014"	round	4.3	0.17"	8.6	0.34"	12.7	0.50"	25.4	1.00"
781S-WA	1.1	0.046"	round	19.0	0.75"	38.1	1.50"	50.8	2.00"	n/a	
781S-46F	1.1	0.046"	fan	25.4	1.00"	38.1	1.50"	50.8	2.00"	82.6	3.25"
781S-28F	0.7	0.028"	fan	10.1	0.40"	20.3	0.80"	30.4	1.20"	60.9	2.40"
781S-14F	0.3	0.014"	fan	8.6	0.34"	17.2	0.68"	25.4	1.00"	50.8	2.00"
781S-WF	1.1	0.046"	fan	38.1	1.50"	63.5	2.50"	82.6	3.25"	165.1	6.50"
	model # 781S 781S-28 781S-14 781S-WA 781S-46F 781S-28F 781S-14F	model # mm 781S 1.1 781S-28 0.7 781S-14 0.3 781S-WA 1.1 781S-46F 1.1 781S-28F 0.7 781S-14F 0.3	model # mm inches 781S 1.1 0.046° 781S-28 0.7 0.028° 781S-14 0.3 0.014° 781S-WA 1.1 0.046° 781S-46F 1.1 0.046° 781S-28F 0.7 0.028° 781S-14F 0.3 0.014°	model # mm inches pattern 781S 1.1 0.046" round 781S-28 0.7 0.028" round 781S-14 0.3 0.014" round 781S-WA 1.1 0.046" round 781S-46F 1.1 0.046" fan 781S-28F 0.7 0.028" fan 781S-14F 0.3 0.014" fan	model # mm inches pattern 25.4 781S 1.1 0.046" round 6.3 781S-28 0.7 0.028" round 5.0 781S-14 0.3 0.014" round 4.3 781S-WA 1.1 0.046" round 19.0 781S-46F 1.1 0.046" fan 25.4 781S-28F 0.7 0.028" fan 10.1 781S-14F 0.3 0.014" fan 8.6	model # mm inches pattern 25.4 1" 781S 1.1 0.046" round 6.3 0.25" 781S-28 0.7 0.028" round 5.0 0.20" 781S-14 0.3 0.014" round 4.3 0.17" 781S-WA 1.1 0.046" round 19.0 0.75" 781S-46F 1.1 0.046" fan 25.4 1.00" 781S-28F 0.7 0.028" fan 10.1 0.40" 781S-14F 0.3 0.014" fan 8.6 0.34"	Aluminum model # mm nozzle diameter mm pattern 25.4 "mm 50.8 781S 1.1 0.046" round 6.3 0.25" 12.7 781S-28 0.7 0.028" round 5.0 0.20" 10.1 781S-14 0.3 0.014" round 4.3 0.17" 8.6 781S-WA 1.1 0.046" round 19.0 0.75" 38.1 781S-46F 1.1 0.046" fan 25.4 1.00" 38.1 781S-28F 0.7 0.028" fan 10.1 0.40" 20.3 781S-14F 0.3 0.014" fan 8.6 0.34" 17.2	Aluminum model # mm nozzle diameter mm pattern pattern 25.4 cm 1" cmches pattern mm pattern inches pattern nm pattern inches pattern num inches pattern num<	Aluminum model # mm nozzle diameter mm pattern zound 25.4 lt " 50.8 such zound mm zound inches zound mm zound f6.2 lt " 76.2 lt "	Aluminum model # mm nozzle diameter model # mm pattern inches pattern mm inches pa	Aluminum model # mm nozzle diameter mm pattern juches mm juches mm inches juches mm juches mm inches mm juches mm 10.040 0.20" 0.2

ValveMate 8040 Controller

The ValveMate controls valve open time and nozzle pressure. Its compact size allows the controller to be mounted near the valve for easy setup and spray adjustment.

- Multi-valve control- up to (2) spray valves
- Partner to Programmable Logic Controller (PLC)
- Easy control for consistent coverage
- Precise control of nozzle air pressure
- End-of-cycle air delay prevents valve from clogging
- End user convenience
- Maximum machine efficiency

Automation: XYZ & XYZR Robot Dispensing Systems

Nordson EFD offers a wide selection of XYZ and XYZR robot systems that are fully compatible with ValveMate valve controller systems. Consistent, accurate, repeatable and complex dispensing applications can be easily performed with EFD robots, with working envelopes that range from 200 x 200 x 50mm to 510 x 510 x 100mm. Scara robot systems are also available for larger, heavier products or inline dispensing applications.

Fluid Reservoirs

Stroke Control

Stroke Reference

Air Cylinder Body

Piston and Needle

Mounting Hole

Packing Spring

Needle Packings

Fluid Body

Fluid Inlet

Nozzle

Air Cap Retaine

1/4-28 UNF

Piston Spring

Actuating

Air Innut

Nozzle

Air Input

10-32 LINE

781S-SS

75% actual size

10-32 UNF

EFD reservoirs are supplied with precision, constant-bleed regulators to ensure consistent fluid pressure to the valve.

Tank reservoirs are available in 1.0, 5.0 and 19.0 liter capacities. Cartridge sizes range from 2.5 to 32 ounces (75 cc to 950 cc).

For Nordson EFD sales and service in over 30 countries, contact EFD or go to www.nordsonefd.com

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For tamper-resist model, specify part #781S-TR or #781S-SS-TR.