

AD-16 SERIES

HIGH PRECISION DISPENSING SYSTEM

Features & Benefits

- Suitable for cell phone manufacturing, repeatability accuracy 0.02 mm, modular design
- Minimum dispensing dot size: 0.5 mm (0.02")
- Up to 15,000 dots per minute can be dispensed with dot size less than 1 nanoliter
- X/Y axis can travel at up to 1200 mm/s
- Linear motors integrated with a cast frame provide proven stability during operation
- Dual valves configuration is available as an option for tuning with different glues and applications independently

Product Description

AD-16 Series fluid dispensing system is applicable for SMT underfill, encapsulation, LTS, TIM, flux, semiconductor package, wafer bond etc.

AD Series Strengths:

- Highly accurate linear motor gantry
- Closed loop control to ensure dispensing volume consistency
- Built-in vision system
- Available with all standard valves including Jetting and Auger valves
- Flexible design, easy to upgrade or equip with different valves
- Barcode scanner to automatically load the correct dispensing program



4 way tilt option



Dual valves option





Specifications:

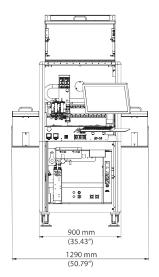
Board Handling	
Standard Work Area	Single valve X 400 × Y 500 × Z 30 mm (X 15.75" × Y 19.68" × Z 1.18")
	Dual valves X 340 × Y 500 × Z 30 mm (X 13.39" × Y 19.68" × Z 1.18")
Maximum Components Height	± 30 mm (± 1.18") from PCB
Acceleration	2 g
PCB Edge Clearance	≥3 mm (≥0.12")
PCB Clearance Topside:	30 mm (1.18")
Max. Conveyor Width :	400 mm (15.75")
Min. Conveyor Width:	60 mm (2.36")
Fluid Volume	30 cc
Fluid Level Sensor	Automatic monitor
Intelligent Automatic Nozzle Cleaner	Non-contact vacuum nozzle cleaning
Transmission system	
Conveyor Quantity	1 pair
Conveyor Type	Thermostable ESD belt
Process Flow	L to R (Standard), R to L (Optional)
Conveyor Height	950 ± 20 mm (37.40" ± 0.79")
Conveyor Speed (XY)	2 – 13 m/min
Conveyor Width Adjustment	Automatic (motorized)
Width Adjustment Speed	250 mm/min
Max. Loading	4 kg/m (even distribution)
/ision System	
D I +!	1206 066
Resolution	1296 x 966 px
Pixel Size	3.75 x 3.75 µm
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Pixel Size Light Source	3.75 x 3.75 µm
Pixel Size Light Source AYZ Axis Configuration	$3.75\times3.75~\mu m$ LED coaxial light source and ring light source Single valve
Pixel Size Light Source (YZ Axis Configuration No. of Valves	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option)
Pixel Size Light Source YZ Axis Configuration No. of Valves Motor	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor
Pixel Size Light Source YZ Axis Configuration No. of Valves Motor Maximum Speed	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor 1200 mm/s
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001")
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor 1200 mm/s
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01mm (± 0.0004")
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001")
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X – Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01mm (± 0.0004")
Pixel Size Light Source YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01mm (± 0.0004") L 900 × W 1300 × H 1675 mm (L 35.43" × W 51.18" × H 65.94")
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint Weight	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01mm (± 0.0004") L 900 x W 1300 x H 1675 mm (L 35.43" x W 51.18" x H 65.94") 700 kg
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint Weight Motor Power	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01 mm (± 0.0004") L 900 × W 1300 × H 1675 mm (L 35.43" × W 51.18" × H 65.94") 700 kg DC 24 V 69 W × 2 0.6 Mpa ≥ 6.5 kg
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint Weight Motor Power Air Requirement	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01 mm (± 0.0004") L 900 x W 1300 x H 1675 mm (L 35.43" x W 51.18" x H 65.94") 700 kg DC 24 V 69 W x 2 0.6 Mpa
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint Weight Motor Power Air Requirement Extraction	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01 mm (± 0.0004") L 900 × W 1300 × H 1675 mm (L 35.43" × W 51.18" × H 65.94") 700 kg DC 24 V 69 W × 2 0.6 Mpa ≥ 6.5 kg
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint Weight Motor Power Air Requirement Extraction Input Power Total Power	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01 mm (± 0.0004") L 900 × W 1300 × H 1675 mm (L 35.43" × W 51.18" × H 65.94") 700 kg DC 24 V 69 W × 2 0.6 Mpa ≥ 6.5 kg AC 220 V 50/60 Hz 10 A
Pixel Size Light Source (YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Standard Footprint Weight Motor Power Air Requirement Extraction Input Power Total Power	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01 mm (± 0.0004") L 900 × W 1300 × H 1675 mm (L 35.43" × W 51.18" × H 65.94") 700 kg DC 24 V 69 W × 2 0.6 Mpa ≥ 6.5 kg AC 220 V 50/60 Hz 10 A
Pixel Size Light Source YZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Facility Standard Footprint Weight Motor Power Air Requirement Extraction Input Power Total Power	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01mm (± 0.0004") L 900 x W 1300 x H 1675 mm (L 35.43" x W 51.18" x H 65.94") 700 kg DC 24 V 69 W x 2 0.6 Mpa ≥ 6.5 kg AC 220 V 50/60 Hz 10 A 2 KW
Pixel Size Light Source KYZ Axis Configuration No. of Valves Motor Maximum Speed Accuracy Repeatability Facility Standard Footprint Weight Motor Power Air Requirement Extraction Input Power Total Power nterface Controller	3.75 x 3.75 µm LED coaxial light source and ring light source Single valve Dual valves (option) X - Y linear module + Z servo motor 1200 mm/s 0.025 mm (0.001") ± 0.01mm (± 0.0004") L 900 x W 1300 x H 1675 mm (L 35.43" x W 51.18" x H 65.94") 700 kg DC 24 V 69 W x 2 0.6 Mpa ≥ 6.5 kg AC 220 V 50/60 Hz 10 A 2 KW

Standard Features

- Computer control, Windows OS
- CCD visual positioning system
- Linear motor and servo driver
- Inline CCD visual programming or gerber upload
- UPS and voltage stabilizer
- ESD grounding point
- CE certified

Optional Features

- Heated valves for viscosity control
- 35 degree tilt and 360 degree rotation
- PCB heater enhances material flow for underfill applications
- Precision weight measurement ensures accurate volumetric dispensing
- Multiple valves available: Pneumatic Jet Valve, Slide Valve and Screw Valve
- Laser height detection to calibrate Z axis automatically for component deformation
- Dual valves



Front View

