

Unity™ Basic Series

Automated Dispensing Systems

Redefining tabletop automation



The Unity Basic Series systems are engineered for precise hot melt dispensing using Nordson Unity dispensing systems. The various platform sizes make them an ideal solution for batch processing of critical hot melt dispensing applications.

The easy-to-use Teach Pendant and the PC-based vision-guided teaching system—each option's availability is based on the system chosen—provides an intuitive and straightforward set-up and programming process.

The Unity Basic Series systems' three-dimensional motion control allows for simple programming of dots, lines, circles, arcs, and compound arcs.

These systems can serve as a self-sustaining dispensing system or as a key station that is easily integrated into automated production lines.

Features

- Simplified setup and programming via intuitive icon-based Teach Pendant
- Optional simple camera and UNITYMotion™ software make setup and programming intuitive
- X/Y/Z tip location alignment sensor available
- Reinforced X axis (on Unity U3X/U4X/U5X/U6X) increases system rigidity and improved accuracy
- Upgradable to enhanced CCD vision camera with vision based bead compensation
- On-screen preview of the dispensing path facilitates programming
- Easy-to-use .dxf file conversion to program path
- Wide range of work envelopes
- Available in platforms ranging from 200 x 200 mm to 620 x 500 mm

Benefits

- Easy-to-use visual programming means operators learn quickly
- Faster cycle and batch times
- Easy integration into any manufacturing operation
- Reduced production, material, and ownership costs
- Consistent adhesive volume output of changing viscosity materials (with enhanced CCD vision option)
- Automated tip alignment saves reprogramming time



Specifications

Item/Model	Unity 2	Unity 3	Unity 4	Unity 5	Unity 6
Number of Axes	3 axes				
Maximum Working Area (X/Y/Z)	200/200/50 mm (7.8/7.8/1.9 in.)	300/300/100 mm (11.8/11.8/3.9 in.)	400/400/100 mm (15.7/15.7/3.9 in.)	500/500/150 mm (19.6/19.6/5.9 in.)	620/500/150 mm (24.4/19.6/5.9 in.)
Workpiece Payload	5 kg (11 lb)	10 kg (22 lb)	10 kg (22 lb)	8 kg (17.6 lb)	10 kg (22 lb)
Tool Payload	3 kg (6.6 lb)	5 kg (11 lb)	5 kg (11 lb)	3.5 kg (7.7 lb)	5 kg (11 lb)
Maximum Speed (per second)	500/250 mm (19.6/9.8 in.)	800/320 mm (31.4/12.5 in.)	800/320 mm (31.4/12.5 in.)	800/320 mm (31.4/12.5 in.)	800/320 mm (31.4/12.5 in.)
Unit Weight	21 kg (46.2 lb)	39.5 kg (87 lb)	44.5 kg (98.1 lb)	44.5 kg (98.1 lb)	50 kg (110.2 lb)
Dimensions WxHxD	375x414x510 mm (14.7x16.2x20 in.)	490x517x645 mm (19.2x20.3x25.3 in.)	590x617x645 mm (23.2x24.2x25.3 in.)	690x717x815 mm (27.1x28.2x32 in.)	810x717x815 mm (31.8x28.2x32 in.)
Drive System	3-phase micro stepping motor				
Memory Capacity	100 programs 500~50,000 points/program				
Data Storage	CF card, USB				
General Purpose I/O	8 inputs/8 outputs (16/16 optional)				
Drive Method	PTP and CP				
Power Supply	Auto-switching, AC100–240 VAC, 200 W	Auto-switching, AC100–240 VAC, 320 W	Auto-switching, AC100–240 VAC, 320 W	Auto-switching, AC100–240 VAC, 320 W	Auto-switching, AC100–240 VAC, 320 W
Interpolation	3 axes (3D space)				
Repeatability	±0.02 mm				
Working Temperature	10–40° C (50–104° F)				

Specifications

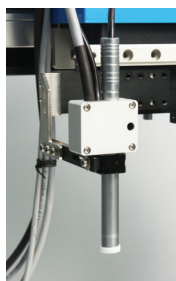
Item/Model	Unity U3X	Unity U4X	Unity U5X	Unity U6X
Number of Axes	3 axes			
Maximum Working Area (X/Y/Z)	300/300/100 mm (11.8/11.8/3.9 in.)	400/400/100 mm (15.7/15.7/3.9 in.)	500/500/100 mm (19.6/19.6/3.9 in.)	620/500/100 mm (24.4/19.6/3.9 in.)
Workpiece Payload	10 kg (22 lb)			
Tool Payload	8 kg (17.6 lb)			
Maximum Speed (per second)	800/320 mm (31.4/12.5 in.)			
Unit Weight	45 kg (99.2 lb)	53.5 kg (117.9 lb)	58 kg (127.8 lb)	61 kg (134.4 lb)
Dimensions WxHxD	540x552x737.5 mm (21.2x21.7x29 in.)	640x652x737.5 mm (25.1x25.6x29 in.)	740x752x737.5 mm (29.1x29.6x29 in.)	860x752x737.5 mm (33.8x29.6x29 in.)
Drive System	3-phase micro stepping motor			
Memory Capacity	99 programs 9999 points/program (with Teach Pendant) PC Storage (with Vision System)			
Data Storage	CF card, USB (with Teach Pendant)			
General Purpose I/O	8 inputs/8 outputs (16/16 optional)			
Drive Method	PTP and CP			
Power Supply	Auto-switching, AC100–240 VAC, 320 W	Auto-switching, AC100–240 VAC, 320 W	Auto-switching, AC100–240 VAC, 320 W	Auto-switching, AC100–240 VAC, 320 W
Interpolation	3 axes (3D space)			
Repeatability	±0.02 mm			
Working Temperature	10–40° C (50–104° F)			

Available Options

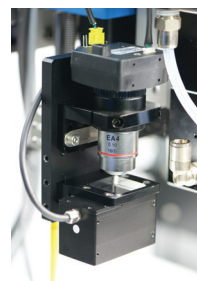
- CCD Vision Kit
- Simple Vision Kit
- High-precision Vision
- Teach Pendant
- Tip Alignment Kit
- Tip Detection System
- Tip Height Detection Kit



Optional Teach Pendant



Optional Simple Vision Kit



Optional CCD Vision Kit

For more information, speak with your Nordson representative or contact your Nordson regional office.

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