

Nordson EFD's range of automated dispensing systems are specifically designed and configured for precise fluid dispensing using EFD syringe barrel and valve systems.

Specialized DispenseMotion™ software and fully integrated vision and laser height sensing capabilities make EFD automated systems quick to set up and easy to program. True three-dimensional motion control allows easy programming of dots, lines, circles, arcs, compound arcs, and complex patterns on different planes.

Closed-loop encoding, along with the smart vision CCD camera and laser height sensing, allows the systems to automatically adjust a dispensing program to compensate for both surface height changes and variations in product orientation.

The systems set up quickly and are easy to run, providing more time for other projects while increasing product yield.

Features and Benefits

- Produces more parts and reduces process time
- Improves product quality from more precise, accurate dispensing
- Quicker learning curve for operators programming is easier, more visual
- Faster startup to introduce automation, with less production downtime
- Fully integrated positioning and dispensing functions

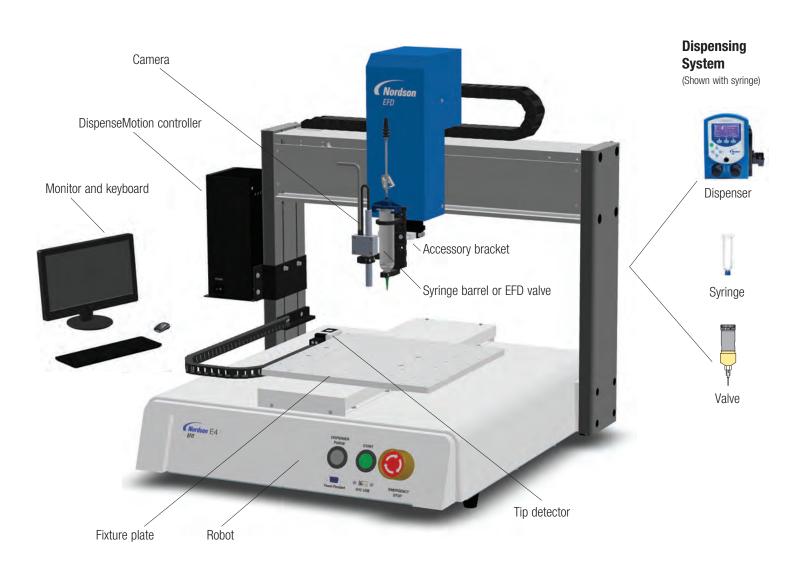


Automated Dispensing System Selection Guide

AUTOMATED DISPENSING SYSTEMS System PROPlus / PRO EV Ε RV R GV 3 3 3 3 # of axes 4 4 **Programming** Teach Pendant Teach Pendant DispenseMotion software DispenseMotion software DispenseMotion software DispenseMotion software TeachMotion software TeachMotion software method CCD smart camera G8V CCD smart camera Vision CCD smart camera Pencil camera (fixed or rotating mount) G4V Pencil camera Laser (included on PROL / Height Mechanical (optional) Mechanical (optional) Mechanical (optional) PROPlusL) detection Tip detector or Tip aligner Tip detection Tip detector (included) Tip detector (optional) Tip aligner (optional) Tip aligner (optional) Tip detector (optional) (optional) Closed loop G4V (N/A) Included encoding G8V (Included) PR03 / PR03Plus G4V E2V E2 R3V R3 200 / 200 / 50 mm 150 / 200 / 50 mm 300 / 300 / 150 mm 300 / 300 / 150 mm 400 / 400 / 100 mm 250 / 250 / 100 mm (10 / 10 / 4") (6 / 8 / 2") (8 / 8 / 2") (12/12/6") (11.8 / 11.8 / 5.9") (16 / 16 / 4") PR03L / PR03PlusL G8V E3V 800 / 800 / 100 mm (31 / 31 / 4") 250 / 300 / 100 mm (10 / 12 / 4") 300 / 300 / 100 mm (12 / 12 / 4") 400 / 400 / 150 mm 250 / 220 / 100 mm 400 / 400 / 150 mm (10/9/4") (16 / 16 / 6") (15.7 / 15.7 / 5.9") Maximum PR04 / PR04Plus 350 / 400 / 100 mm 400 / 400 / 100 mm 620 / 500 / 150 mm 620 / 500 / 150 mm working area 350 / 350 / 100 mm (14 / 14 / 4") (14 / 16 / 4") (16/16/4")(24/20/6") (24 / 19.7 / 5.9") (X/Y/Z)**E5V** 450 / 500 / 150 mm (18 / 20 / 6") PR04L **E5** 500 / 500 / 150 mm All: ± 999° All: ± 999° 300 / 400 / 100 mm (12 / 16 / 4") (20 / 20 / 6") PR04PlusL E6V 570 / 500 / 150 mm 620 / 500 / 150 mm 350 / 320 / 100 mm (14 / 13 / 4") (22 / 20 / 6") (24 / 20 / 6")



Automated Dispensing System – System Setup







Tip aligner







Laser height sensor



TC100 Temperature Controller

The PROPlus / PRO Series is EFD's most advanced automated dispensing system. Along with specialized DispenseMotion software and fully integrated vision and laser height sensing capabilities, the system includes closed-loop encoding to deliver best-in-class dispensing performance and exceptional process control.

Features and Benefits

- Dual linear guide, advanced servomotor, and ball screw actuation (PROPlus only)
- Best-in-class repeatability and speed (PROPlus ±0.003 mm; PRO ±0.004 mm)
- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion software
- · On-screen preview of the dispensing path facilitates programming
- Constant closed-loop feedback with encoding, smart vision camera, and precision laser non-contact sensing
- Improved product quality; more precise, accurate dispensing
- Quicker learning curve for operators; programming is easier, more visual
- · Produces more parts and reduces process time

PROPlus / PRO Series Automated Dispensing System



Integrated vision and laser make the PROPlus / PRO Series a complete automated solution.

| | | SPECIFIC | CATIONS | |
|-------------------------------------|---|--|---|--|
| Items/Models | PR03 / PR03L | PR04 / PR04L | PROPlus3 / PROPlus3L | PROPlus4 / PROPlus4L |
| Part # | 7362911 | 7360860 | 7363536 | 7363539 |
| Part # Europe* | 7363829 | 7361353 | 7363650 | 7363653 |
| Part # with Laser | 7362913(A) / 7362914(B) | 7360861(A) / 7360862(B) | 7363538(A) / 7363537(B) | 7363541(A) / 7363540(B) |
| Part # Europe* with Laser | 7363830(A) / 7363831(B) | 7361354(A) / 7361355(B) | 7363652(A) / 7363651(B) | 7363654(A) / 7363655(B) |
| Number of Axes | - | 3- | | - |
| Maximum Working Area (X / Y / Z) | 250 / 250 / 100 mm (10 / 10 / 4") / 250 / 220 / 100 mm (10 / 9 / 4") | 350 / 350 / 100 mm (14 / 14 / 4") / 350 / 320 / 100 mm (14 / 13 / 4") | 250 / 250 / 100 mm (10 / 10 / 4") / 250 / 220 / 100 mm (10 / 9 / 4") | 350 / 350 / 100 mm (14 / 14 / 4") / 350 / 320 / 100 mm (14 / 13 / 4") |
| Workpiece Payload | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) | 25.0 kg (55.1 lb) | 25.0 kg (55.1 lb) |
| Tool Payload | 3.5 kg (7.7 lb) / 1.5 kg (3.3 lb) | 3.5 kg (7.7 lb) / 1.5 kg (3.3 lb) | 6.0 kg (13.2 lb) | 6.0 kg (13.2 lb) |
| Weight | 45.0 kg (99.2 lb) / 46.5 kg (102.5 lb) | 57.5 kg (126.8 lb) / 59 kg (130.1 lb) | 50.5 kg (111.3 lb) / 52 kg (114.6 lb) | 63.5 kg (140.0 lb) / 65 kg (143.3 lb) |
| Dimensions | 720w x 690н x 590p mm (28w x 27н x 22p") | 820w x 690н x 690n mm (32w x 27н x 27р") | 720w x 690н x 590b mm (28w x 27н x 22b") | 820w x 690н x 690b mm (32w x 27н x 27b") |
| Dimensions with Laser | 793w x 690н x 590b mm (31w x 27н x 22b") | 833w x 690н x 690b mm (33w x 27н x 27b") | 793w x 690н x 590b mm (31w x 27н x 22b") | 833w x 690н x 690b mm (33w x 27н x 27b") |
| Maximum Speed (X / Y / Z) | 500 / 250 mm/s (20 / 10"/s) | 500 / 250 mm/s (20 / 10"/s) | 800 / 250 mm/s (31 / 10"/s) | 800 / 250 mm/s (31 / 10"/s) |
| Drive System | 5-phase micro stepping motor | 5-phase micro stepping motor | Servomotor | Servomotor |
| Memory Capacity | < | PC sto | orage | |
| General Purpose I/O | < | 8 inputs / 8 outputs | s (16 / 16 optional) | |
| Input AC (to power supply) | ← | 100–240 VAC, ±10%, 50/60H | Iz, 20 Amp maximum, 380 W | |
| Repeatability** | ±0.004 mm / axis | ±0.004 mm / axis | ±0.003 mm / axis | ±0.003 mm / axis |
| Tip Detection System | ← | Inclu | uded | - |
| Vision | < | CCD sma | rt camera———— | |
| DispenseMotion Software | < | Inclu | uded | |
| Laser Height Detection | ← | Optional / Included | (PROL/PROPlusL) | |
| Approvals / Warranty | CE, RoHS, WEEE, China RoHS / 1 y | ear, limited | | |

^{*}Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.



The EV Series offers simple vision for precise fluid application in an automated solution. Along with specialized DispenseMotion software and a pencil camera, the system is quick to set up and easy to program. Platforms range from 150 x 200 mm to 570 x 500 mm, making them an ideal solution for batching or critical dispensing applications.

Features and Benefits

- Simple camera and dispensing software make setup and programming easy
- On screen preview of the dispensing path facilitates programming
- Streamlined file import and conversion
- True three-dimensional motion control
- Wide range of work envelopes
- Faster cycle and batch times
- Easy integration into any manufacturing operation

EV Series Automated Dispensing Systems



EV Series pencil camera vision makes programming patterns easier.

| | | | SPECIFICATIONS | | |
|-------------------------------------|---|---|---|---|---|
| Item/Model | E2V | E3V | E4V | E5V | E6V |
| Part # | 7360856 | 7360857 | 7360858 | 7360859 | 7362103 |
| Part # Europe* | 7361349 | 7361350 | 7361351 | 7361352 | 7362104 |
| Number of Axes | ← | | 3 | | - |
| Maximum Working Area (X / Y / Z) | 150 / 200 / 50 mm (6 / 8 / 2") | 250 / 300 / 100 mm (10 / 12 / 4") | 350 / 400 / 100 mm (14 / 16 / 4") | 450 / 500 / 150 mm (18 / 20 / 6") | 570 / 500 / 150 mm (22 / 20 / 6") |
| Workpiece Payload | 5.0 kg (11.0 lb) | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) |
| Tool Payload | 1.5 kg (3.3 lb) | 3.0 kg (6.6 lb) |
| Weight | 29.0 kg (63.9 lb) | 47.5 kg (104.7 lb) | 52.5 kg (115.7 lb) | 55.0 kg (121.3 lb) | 58.0 kg (127.9 lb) |
| Dimensions | 481w x 510н x 432p mm (19w x 20н x 17p") | 596w x 644н x 543р mm (23w x 25н x 21р") | 696w x 644н x 638p mm (27w x 25н x 25p") | 796w x 814н x 718d mm (31w x 32н x 28d") | 913w x 812h x 718d mm (36w x 32h x 28d") |
| Maximum Speed | 500 / 250 mm/s (20 / 10"/s) | 800 / 320 mm/s (31 / 13"/s) |
| Drive System | ← | | - 3-phase micro stepping motor | | - |
| Memory Capacity | < | | PC storage | | |
| General Purpose I/O | ← | 8 | inputs / 8 outputs (16 / 16 option | nal) ————— | - |
| Input AC (to power supply) | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 230 W | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 350 W |
| Repeatability** | ≺ | | ±0.008 mm / axis | | |
| Vision | ← | | Pencil camera — | | - |
| DispenseMotion Software | ≺ | | Included ——— | | |
| Tip Detection | ← | | Tip detector (optional) | | |
| Height Detection | ← | | —— Mechanical (optional) —— | | |
| Approvals / Warranty | CE, RoHS, WEEE, China Rol | HS / 1 year, limited | | | |

^{*}Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.



The E Series offers precise fluid application in an automated solution. Along with specialized TeachMotion™ software, the E Series relies on an easy-to-use Teach Pendant for programming. Platforms range from 200 x 200 mm to 620 x 500 mm, making them ideal for batching or critical dispensing.

Features and Benefits

- Simplified setup and programming via Teach Pendant or file importation
- True, three-dimensional motion control
- Rugged, reliable construction and small footprint
- Wide range of work envelopes
- Faster cycle and batch times
- Easy integration into any manufacturing operation

E Series Automated Dispensing Systems



E Series makes automation easy with precise performance and fast programming.

| | | | SPECIFICATIONS | | |
|-------------------------------------|---|---|---|---|---|
| Item/Model | E2 | E3 | E4 | E5 | E6 |
| Part # | 7360852 | 7360853 | 7360854 | 7360855 | 7362101 |
| Part # Europe* | 7361345 | 7361346 | 7361347 | 7361348 | 7362102 |
| Number of Axes | ≺ | | 3 | | - |
| Maximum Working Area (X / Y / Z) | 200 / 200 / 50 mm (8 / 8 / 2") | 300 / 300 / 100 mm (12 / 12 / 4") | 400 / 400 / 100 mm (16 / 16 / 4") | 500 / 500 / 150 mm (20 / 20 / 6") | 620 / 500 / 150 mm (24 / 20 / 6") |
| Workpiece Payload | 5.0 kg (11.0 lb) | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) | 10.0 kg (22.0 lb) |
| Tool Payload | 3.0 kg (6.6 lb) | 5.0 kg (11.0 lb) | 5.0 kg (11.0 lb) | 5.0 kg (11.0 lb) | 5.0 kg (11.0 lb) |
| Weight | 21.0 kg (46.3 lb) | 39.5 kg (87.1 lb) | 44.5 kg (98.1 lb) | 47.0 kg (103.6 lb) | 50.0 kg (110.2 lb) |
| Dimensions | 370w x 510н x 414b mm (15w x 20н x 16b") | 490w x 644н x 519b mm (19w x 25н x 20b") | 590w x 644н x 617p mm (23w x 25н x 24p") | 690w x 814н x 718р mm (27w x 32н x 28р") | 808w x 812h x 718d mm (32w x 32h x 28d") |
| Maximum Speed | 500 / 250 mm/s (20 / 10"/s) | 800 / 320 mm/s (31 / 13"/s) | 800 / 320 mm/s (31 / 13"/s) | 500 / 320 mm/s (20 / 13"/s) | 500 / 320 mm/s (20 / 13"/s) |
| Drive System | ← | | 3-phase micro stepping motor | | - |
| Memory Capacity | ← | 1–99 | programs, 1-9,999 points per p | orogram ————— | - |
| General Purpose I/O | ← | | 8 inputs / 8 outputs | | - |
| Input AC (to power supply) | | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W | | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W | |
| Repeatability** | ← | | ±0.008 mm / axis | | - |
| Teach Pendant | ← | | Included | | |
| Tip Detection | ← | | —— Tip detector (optional) —— | | |
| Height Detection | ← | | —— Mechanical (optional) —— | | |
| Approvals / Warranty | CE, RoHS, WEEE, China Rol | HS / 1 year, limited | | | |

^{*}Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

Download CAD Models: www.nordsonefd.com/CAD



The 4-axis RV Series offers easy setup and programming with specialized vision-guided DispenseMotion software and an integrated CCD smart vision camera to deliver market-leading repeatability and accuracy in fluid placement. Simultaneous X and Y movement during R rotation provides true point of programming for dispensing at any angle along the 360° rotation plane.

In addition to its standard fixed-mount CCD camera, the RV Series has an optional rotating-mount camera that mounts onto the R-axis of the robot. This allows multiple substrate viewing orientations at 0° or 90° angles. It also allows multi-focus on multiple substrate heights.

Features and Benefits

- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion Software
- · On-screen preview of the dispensing path facilitates programming
- Market-leading dimensional positioning accuracy and deposit placement repeatability with powerful CCD camera
- Faster cycle and batch times with best-in-class ±8 µm repeatability
- 360° rotation for ID and OD dispensing

RV Series Automated Dispensing Systems



RV Series CCD smart vision camera verifies workpiece presence and orientation.

| | | SPECIFICATIONS | |
|---|---|---|---------------------------------|
| Item/Model | R3V | R4V | R6V |
| Part # (w/ fixed-mount camera) | 7363556 | 7363557 | 7363558 |
| Part # Europe* (w/ fixed-mount camera) | 7361913 | 7361915 | 7361917 |
| Part # (w/ rotating-mount camera) | , | 7363675 (base robot, no vision) | 7363677 (base robot, no vision) |
| Part # Europe* (w/ rotating-mount camera) | , , , | 7363676 (base robot, no vision) 067 (vision kit) / 7727235 (keyboard and n | , |
| Number of Axes | ← | 4 ——— | |
| Maximum Working Area (X / Y / Z / R°) | | 400 / 400 / 150 mm / ±999° (15.7 / 15.7 / 5.9" / ±999°) | |
| Workpiece Payload | ← | 10.0 kg (22.0 lb) | - |
| Tool Payload | ← | 3.0 kg (6.6 lb) | - |
| Weight | 50.0 kg (110 lb) | 55.0 kg (121 lb) | 61.0 kg (135 lb) |
| Dimensions | 645w x 914н x 552b mm (25w x 36н x 22b") | 745w x 914н x 652b mm (29w x 36н x 26b") | |
| Maximum Speed (XY / Z) | ← | 800 / 320 mm/s (31 / 13"/s) | |
| Maximum Speed (R) | ← | 720 deg/s ———— | |
| Drive System | ← | —— 3-phase micro stepping motor —— | - |
| Memory Capacity | ← | PC storage | - |
| General Purpose I/O | ← | — 8 inputs / 8 outputs (16 / 16 optional) – | - |
| Input AC (to power supply) | ∢ 100-24 | 40 VAC, ±10%, 50/60Hz, 20 Amp maximur | m, 320W—— → |
| Repeatability** | ← | -±0.008 mm / axis (XY / Z) / ±0.005 (R°) | - |
| Vision | ← | CCD smart camera (fixed or rotating mount) | |
| Tip Detection | ← | Optional — | |
| DispenseMotion Software | ← | Included ———— | - |
| Approvals / Warranty | CE, RoHS, WEEE, China RoHS / 1 y | ear, limited | |

^{*}Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.



The 4-axis R Series offers easy setup and programming with specialized TeachMotion Teach Pendant software designed to deliver market-leading repeatability and accuracy in fluid placement. Simultaneous X and Y movement during R rotation provides true point programming for dispensing at any angle along the 360° rotation plane.

Features and Benefits

- Built-in tip recalibration for easy tip change alignment
- Easy USB file upload and download
- 360° rotation for ID and OD dispensing
- Quicker setup and programming
- Faster cycle and batch times with best-in-class ±8 µm repeatability
- New manufacturing opportunities

R Series Automated Dispensing Systems



R Series makes 4-axis dispensing automation easy.

| | | SPECIFICATIONS | |
|---------------------------------------|--|--|--|
| Item/Model | R3 | R4 | R6 |
| Part # | 7361912 | 7361914 | 7361916 |
| Part # Europe* | 7361913 | 7361915 | 7361917 |
| Number of Axes | ← | 4 ——— | - |
| Maximum Working Area (X / Y / Z / R°) | 300 / 300 / 150 mm / ±999° (12 / 12 / 6" / ±999°) | 400 / 400 / 150 mm / ±999° (16 / 16 / 6" / ±999°) | 620 x 500 x 150 mm / ±999° (24 / 20 / 6" / ±999°) |
| Workpiece Payload | ← | 10.0 kg (22.0 lb) | - |
| Tool Payload | ← | 3.0 kg (6.6 lb) | - |
| Weight | 41.0 kg (90.4 lb) | 46.0 kg (101.4 lb) | 52.0 kg (114.7 lb) |
| Dimensions | 490w x 901н x 519b mm (19w x 35н x 20b") | 590w x 901н x 619p mm (23w x 35н x 24p") | |
| Maximum Speed (XY / Z) | ← | 800 / 320 mm/s (31 / 13"/s) | - |
| Maximum Speed (R°) | ← | 720 deg/s | - |
| Drive System | ← | — 3-phase micro stepping motor —— | - |
| Memory Capacity | ≺ 1-9 | 9 programs, 1-9,999 points per progran | m |
| General Purpose I/O | ≺ | 8 inputs / 8 outputs | - |
| Input AC (to power supply) | ∢ 100-240 V | AC, ±10%, 50/60Hz, 20 Amp maximum | , 320 W —— > |
| Repeatability** | ← ——± | 0.008 mm / axis (XY / Z) / ±0.005 (R°)- | - |
| Teach Pendant | ← | Included | - |
| Tip Detection | ← | ——— Tip aligner (optional) ————— | |
| Approvals / Warranty | CE, RoHS, WEEE, China RoHS / 1 ye | ar, limited | |

^{*}Complies with European safety regulations. **Repeatability results may vary depending on method of measurement.

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Nordson EFD's vision-guided GV Series automated dispensing gantry systems deliver easy automation for precise fluid applications. Working envelopes range from 400 mm to 800 mm, making them an ideal solution for precise fluid dispensing onto substrates requiring large work envelopes while not sacrificing repeatability. The GV Series can work as a standalone system or as a key part of an automated solution and is easily integrated into rotary tables and conveyor-fed assembly lines.

Features and Benefits

- Work envelopes as large as 800 mm
- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion software
- Unlimited workpiece payload provides full range of dispensing application opportunities
- Ideal for conveyer-fed automation
- Seamless integration into any manufacturing operation

GV Series Automated Dispensing System



The GV Series automated dispensing system has an unlimited workpiece payload.

| | SPECIFI | CATIONS |
|----------------------------------|--|---|
| Items/Models | G4V | G8V |
| Part # (100 mm post) | 7363644 | 7363647 |
| Part # (150 mm post) | 7363645 | 7363648 |
| Part # (250 mm post) | 7363646 | n/a |
| Number of Axes | ∢ | 3 |
| Maximum Working Area (X / Y / Z) | 400 / 400 / 100 mm (16 / 16 / 4") | 800 / 800 / 100 mm (31 / 31 / 4") |
| Tool Payload | 3.0 kg (6.6 lb) | 8.0 kg (17.6 lb) |
| Weight | 63.5 kg (140.0 lb) | 181.5 kg (400.1 lb) |
| Dimensions | 833w x 382н x 730p mm (33w x 15н x 29p") | 1,489w x 534н x 1,160p mm (59w x 21н x 46p") |
| Maximum Speed (XY / Z) | 500 / 320 mm/s (20 / 13"/s) | 800 / 320 mm/s (31 / 13"/s) |
| Drive System | 5-phase micro-stepping motor | XY axis: Servo motor Z axis: 5-phase micro-stepping motor |
| Memory Capacity | ∢ | storage |
| General Purpose I/O | ∢ 8 inputs / 8 outpu | ts (16 / 16 optional) ———> |
| Input AC (to power supply) | 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 420 W | 220 VAC, ±10%, 50/60 Hz, 10 Amp maximum, 420 W |
| Repeatability* | ±0.02 mm / axis | ±0.1 mm / axis |
| Vision | Pencil camera | CCD smart camera |
| DispenseMotion Software | ≺ Incl | uded> |
| Tip Detection | ∢ ——Tip detect | tor (optional) — |
| Height Detection | ∢ Mechanid | cal (optional) |
| Approvals / Warranty | CE, RoHS, WEEE, China RoHS / 1 year, limite | d |

^{*}Repeatability results may vary depending on method of measurement.

Download CAD Models: www.nordsonefd.com/CAD



Nordson EFD guarded safety enclosures integrate seamlessly with our complete line of automated dispensing systems. Featuring external dispensing controls, a safety light curtain, and an internal electrical control box and wireways for faster, safer setup, these CE-compliant enclosures also fully comply with EU Machinery Directive 2006/42/EC.

Features and Benefits

- Light curtain meets safety requirements while providing easy access to the dispensing system when necessary
- Complete control of the system from the outside of the enclosure, including Start, Emergency Stop, and Run/Teach
- Solid construction resists bumps and jolts to maintain dispensing accuracy
- High-quality enclosure protects operators from operational hazards
- Protects the dispensing system from environmental conditions
- Compliant with EU Machinery Directive 2006/42/EC, essential for all production requirements



Complete Guarded System

7362738 Small Safety Enclosure

Compatible robot models E2, E2V, E3, E3V, R3, R3V, PRO3, PRO9L, PROPlus3, PROPlus3L.

7362766 Small Safety Enclosure, Europe Compatible robot models E2, E2V, E3, E3V, R3, R3V, PRO3, PRO3L, PROPlus3, PROPlus3L.

7362739 Large Safety Enclosure

Compatible robot models E4, E4V, E5, E5V, R4, R4V, PR04, PR04L, PR0Plus4, PR0Plus4L.

7362767 Large Safety Enclosure, Europe Compatible robot models E4, E4V, E5, E5V, R4, R4V, PRO4, PRO4L, PROPlus4, PROPlus4L.

"Automated tabletop dispensing has significantly increased productivity by removing the variability from our process. It has also reduced our rejects by up to 90%."

- Electrodynamics Inc.

| | | MOUNTING B | RACKETS | | | | | |
|---------|---------|---|---------------|----------|----------|----------|----------|----------|
| Bracket | Part # | Recommended Use | PROPlus / PRO | EV | Е | RV | R | GV |
| | 7362438 | PROPlus / PRO Series base for all valve mounting brackets except P/Ns 7360611 and 7360612 | ✓ | _ | _ | _ | _ | _ |
| | 7361668 | R / RV Series base for all valve mounting brackets except P/N 7360612 | - | _ | _ | ✓ | √ | _ |
| 1 | 7360610 | EFD syringe barrels, all sizes | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7028271 | EFD cartridges, small bracket 2.5 oz (74 ml), 6 oz (177 ml), 12 oz (355 ml) | √ | ✓ | ✓ | ✓ | √ | ✓ |
| | 7028272 | EFD cartridges, large bracket 20 oz (591 ml), 32 oz (946 ml) | √ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7361815 | PICO <i>Pμlse</i> valves | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7360612 | PICO valves (excluding PICO <i>Pµlse</i> valves) | ✓ | _ | _ | _ | _ | _ |
| 31 | 7360611 | PICO valves (excluding PICO <i>Pµlse</i> valves) | _ | ✓ | √ | √ | √ | √ |
| | 7362177 | Liquidyn P-Jet and P-Dot Series valves | √ | √ | √ | √ | √ | √ |
| Î | 7364423 | 797PCP Series pumps | √ | _ | _ | _ | _ | √ |
| | 7364529 | 797PCP-2K Series pumps | √ | _ | _ | _ | _ | ✓ |
| | 7360613 | Universal for valves with mounting holes (752, 725, 741, 736, 781, 787, and 782 Series) | √ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7361758 | Universal for valves without mounting holes (702, 754, 794, and 784S Series) | ✓ | ✓ | √ | √ | √ | √ |

Continued next page

From previous page

| rom provided page | | | MOUNTING BRACKETS | | | | | |
|-------------------|---------|-----------------------------|-------------------|----|---|----|---|----|
| Bracket | Part # | Recommended Use | PROPlus / PRO | EV | Е | RV | R | GV |
| | 7361114 | xQR41 and 745 Series valves | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7361757 | 7860C Radial Spinner valves | ✓ | ✓ | ✓ | _ | _ | ✓ |
| | 7360952 | Ultimus IV fluid dispenser | _ | _ | ✓ | _ | ✓ | _ |
| 1 | 7360796 | 2K Equalizer | _ | _ | ✓ | _ | _ | _ |
| * | 7360609 | EV Series pencil camera | _ | ✓ | _ | _ | _ | _ |

| | | 0471.5 | -0 | | | | | |
|-------|---------|---|---------------|----|----------|----|---|----|
| | | CABLE | :5 | | | | | |
| Cable | Part # | Description | PROPlus / PRO | EV | E | RV | R | GV |
| | 7360551 | Standard cable to connect dispenser and robot | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7360761 | Single voltage initiate cable for one dispenser or controller | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7360554 | Dual voltage initiate cable for up to two dispensers / controllers | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7362573 | I/O cable for ValveMate 8000 Controller (when all four channels are required) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7360558 | Dual-connector cable for one or two PICO <i>Toµch</i> Controllers | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7362356 | Dual-connector cable for one or two Liquidyn V10 Controllers | ✓ | ✓ | √ | ✓ | ✓ | ✓ |
| | 7362357 | Dual-connector cable for one or two Liquidyn V200 Controllers | ✓ | ✓ | √ | ✓ | ✓ | ✓ |
| D | 7362373 | Single-connector cable for one Liquidyn V200 Controller | ✓ | ✓ | √ | ✓ | ✓ | ✓ |
| Q | 7015086 | DB9 cable for RS-232 connection | _ | _ | ✓ | _ | ✓ | _ |
| | 7015475 | USB-to-serial converter cable | _ | _ | ✓ | _ | ✓ | _ |

| | FIXTURE PLATES | | | | | | | |
|---------------|----------------|----------------------|----------------|--------------|--------------|----|---|----|
| Fixture Plate | Part # | Description | PROPlus / PRO* | EV | Е | RV | R | GV |
| | 7028276 | 200 mm fixture plate | _ | ✓ | ✓ | _ | _ | _ |
| | 7028277 | 300 mm fixture plate | _ | \checkmark | \checkmark | _ | _ | _ |
| | 7028278 | 400 mm fixture plate | _ | ✓ | ✓ | _ | _ | _ |
| | 7028279 | 500 mm fixture plate | _ | ✓ | ✓ | _ | _ | _ |
| E | 7362547 | 300 mm fixture plate | _ | _ | _ | ✓ | ✓ | _ |
| | 7362548 | 400 mm fixture plate | _ | _ | _ | ✓ | ✓ | _ |
| | 7362549 | 600 mm fixture plate | _ | _ | _ | ✓ | ✓ | _ |

All plates include four edge levelers and four leveling mounts.

^{*}Fixture plates shipped pre-installed on PRO Series models; replacement not required.

| | | VISION K | ITS | | | | | |
|------------|---------|--|---------------|----|---|----|---|----------|
| Vision Kit | Part # | Description | PROPlus / PRO | EV | Е | RV | R | GV |
| | 7360864 | Vision kit for CCD camera with light box (includes camera, PC, monitor, keyboard, and mouse) | ✓ | _ | _ | _ | _ | _ |
| | 7361595 | Vision kit for CCD camera with light box, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately. | ✓ | _ | _ | _ | _ | _ |
| 3 . 1 | 7364830 | Vision kit for CCD camera (includes camera, PC, monitor, keyboard, and mouse) | _ | _ | _ | _ | _ | G8V only |
| | 7364831 | Vision kit for CCD camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately. | _ | _ | _ | _ | _ | G8V only |
| | 7360863 | Vision kit for pencil camera (includes camera, PC, monitor, keyboard, and mouse) | _ | ✓ | _ | _ | _ | G4V only |
| PL) | 7361528 | Vision kit for pencil camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately. | _ | ✓ | _ | _ | _ | G4V only |
| 311 | 7363461 | Vision kit for fixed-mount camera (includes camera, PC, monitor, keyboard, and mouse) | _ | _ | _ | ✓ | _ | _ |
| | 7363672 | Vision kit for fixed-mount camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately. | _ | _ | _ | ✓ | _ | _ |
| | 7364066 | Vision kit for rotating-mount camera (includes camera, PC, monitor, keyboard, and mouse) | _ | _ | _ | ✓ | _ | _ |
| | 7364067 | Vision kit for rotating-mount camera, Europe (includes camera, PC, and monitor) Note: Order keyboard and mouse separately. | _ | _ | _ | ✓ | _ | _ |
| - | 7727235 | Wireless keyboard and mouse | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | 7360867 | Lens accessory kit for high-precision CCD cameras (allows different focal lengths and depths of field) | ✓ | _ | _ | _ | _ | G8V only |

| HEIGHT DETECTION KITS | | | | | | | | |
|-----------------------|---------|--|---------------|----|---|----|---|----------|
| Kit | Part # | Recommended Use | PROPlus / PRO | EV | Е | RV | R | GV |
| | 7361239 | Laser A for optical height sensing of reflective or transparent surfaces | ✓ | _ | _ | _ | _ | _ |
| 8 | 7361240 | Laser B for optical height sensing of most surfaces | ✓ | _ | _ | _ | _ | _ |
| 100 | 7361667 | Touch-type mechanical height sensor | _ | ✓ | ✓ | _ | _ | √ |

| TIP DETECTION / ALIGNMENT KITS | | | | | | | | | | | | |
|--------------------------------|---------|--|---------------|----|---|----------|---|----------|--|--|--|--|
| Kit | Part # | Recommended Use | PROPlus / PRO | EV | Е | RV | R | GV | | | | |
| 7 | 7361535 | Tip detector for touch sensing of the tip-to-workpiece gap (tip must contact the sensor) | ✓ | _ | _ | _ | _ | _ | | | | |
| | 7360893 | Tip detector for touch sensing of the tip-to-workpiece gap (tip must contact the sensor) | _ | ✓ | _ | ✓ | _ | ✓ | | | | |
| 6 | 7360892 | Tip aligner for optical sensing of the tip-to-workpiece gap (no tip contact required) | _ | _ | ✓ | _ | _ | _ | | | | |
| | 7362353 | Tip aligner for optical sensing of the tip-to-workpiece gap (no tip contact required) | _ | _ | _ | ✓ | ✓ | _ | | | | |
| an min | 7363940 | Allows the tip detector / aligner to be mounted in the center of the robot fixture plate | ✓ | ✓ | ✓ | √ | ✓ | √ | | | | |

| OTHER ACCESSORIES | | | | | | | | | | | | |
|-------------------|---------|--|---------------|----|---|----|---|----|--|--|--|--|
| Accessory | Part # | Description | PROPlus / PRO | EV | Е | RV | R | GV | | | | |
| 00 | 7363285 | Start / stop accessory box and I/O checker, standard | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| | 7360865 | Start / stop accessory box, European Community | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| | 7360866 | Input / output expansion, 8 inputs / 8 outputs | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| | 7364017 | TC100 Temperature Controller | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |

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