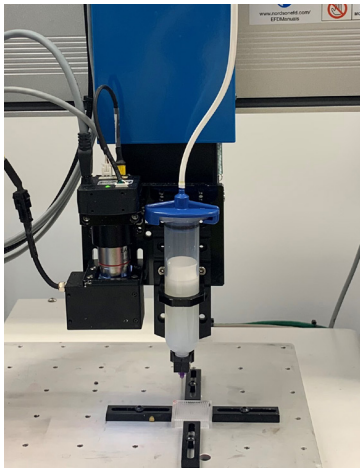


PROPlus / PRO Series Automated Dispensing Systems

A complete, vision-guided automation solution



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



Smart vision CCD camera verifies product presence and orientation.



Verify deposit height measurements with ease with the OptiSure confocal laser.

Nordson EFD's vision-guided PROPlus / PRO Series automated systems are specifically designed and configured for precise fluid dispensing using EFD syringe barrel and valve systems.

Specialized DispenseMotion™ software and 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, and compound arcs.

Closed-loop encoding, along with the smart vision and laser height sensing capabilities, allows the system to adjust programs automatically to compensate for both surface height changes and variations in product orientation.

The PROPlus delivers best-in-class repeatability of ± 0.003 mm and provides higher dispensing accuracy. Specialized software is designed to optimize the performance of PICO® and Liquidyn® jet valve systems. Fiducial recognition allows for multiple image captures for higher resolution offset.

Features

- Dual linear guide, advanced servomotor, and ball screw actuation (PROPlus only)
- 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
- Streamlined file import and conversion

Benefits

- Best-in-class repeatability and speed (PROPlus ± 0.003 mm; PRO ± 0.004 mm)
- Improved product quality; more precise, accurate dispensing
- Faster startup to introduce automation, less production line downtime
- Quicker learning curve for operators; programming is easier, more visual
- Produces more parts and reduces process time
- Reduced production, material, and ownership costs
- New manufacturing opportunities



more info



PROPlus / PRO Series Specifications

Laser Part

7361240: B Laser Upgrade Kit

7364992: C (Confocal) Laser Upgrade Kit

| Item / Model | PRO3 | PRO4 | PROPlus3 | PROPlus4 |
|----------------------------------|--|--|--|--|
| Part # | 7362911 | 7360860 | 7363536 | 7363539 |
| Part # Europe | — | 7361353 | 7363650 | 7363653 |
| Number of axes | 3 axes | | | |
| Maximum working area (X / Y / Z) | 250 / 250 / 100 mm (10 / 10 / 4") | 350 / 350 / 100 mm (14 / 14 / 4") | 250 / 250 / 100 mm (10 / 10 / 4") | 350 / 350 / 100 mm (14 / 14 / 4") |
| Workpiece payload | 10.0 kg (22.0 lb) | | 25.0 kg (55.1 lb) | |
| Tool payload | 3.5 kg (7.7 lb) | | 6.0 kg (13.2 lb) | |
| Weight | 45.0 kg (99.2 lb) | 57.5 kg (126.8 lb) | 50.5 kg (111.3 lb) | 63.5 kg (140.0 lb) |
| Dimensions | 720w x 690h x 590d mm (28w x 27h x 22d") | 820w x 690h x 690d mm (32w x 27h x 27d") | 720w x 690h x 590d mm (28w x 27h x 22d") | 820w x 690h x 690d mm (32w x 27h x 27d") |
| Maximum speed (XY / Z)* | 500 / 250 mm/s (20 / 10"/s) | | 800 / 250 mm/s (31 / 10"/s) | |
| Drive system | 5-phase micro- stepping motor | | Servomotor | |
| Memory capacity | PC storage | | | |
| General purpose I/O | 8 inputs / 8 outputs (16 / 16 optional) | | | |
| Input AC (to power supply) | 100–240 VAC, $\pm 10\%$, 50/60Hz, 20 Amp maximum, 380 W | | | |
| Repeatability** | ± 0.004 mm/axis | | ± 0.003 mm/axis | |
| Vision | CCD smart camera | | | |
| DispenseMotion software | Included | | | |
| Tip detection | Included | | | |
| Laser height detection | Optional | | | |
| Approvals | CE, UKCA, RoHS, WEEE, China RoHS | | | |
| Warranty | 1 year, limited | | | |

*Actual travel speed depends on the dispensing path and workpiece / tool payloads.

**Repeatability results may vary depending on the method of measurement.

Continued on next page

Laser Comparison

| Item | Laser B (IL-030) | Laser C (CL P030) |
|----------------------------------|--|------------------------|
| Reference (measurement) distance | 30 mm (1.18") | 30 mm (1.18") |
| Measurement range | ±15 mm (±0.59") | ±5 mm (±0.20") |
| Laser class | 1 | 1 |
| Spot diameter | 200 x 750 µm | ø38 µm |
| Linearity | ±5 µm | ±0.72 µm |
| Repeatability | 1 µm | 0.25 µm |
| Sampling rate | 0.33 / 1 / 2 / 5 ms | 0.1 / 0.2 / 0.5 / 1 ms |
| Surface | All except reflective, transparent, and translucent surfaces | All |

Laser Height Sensing

- Pinpoint accuracy with optional laser height sensing
- Better dispensing

Both Laser B and Laser C detect variations on the surface of a product and allow the robot to automatically adjust the tip dispensing height, preventing uneven deposits and tip or workpiece damage. Use laser C for higher precision, detection of reflective or translucent surfaces, or detection of small areas or ledges less than 700 µm.

Smart Vision

- Precise repeatability with powerful CCD camera
- Higher product quality and throughput

All PROPlus / PRO Series systems include a CCD camera that converts pixels to digital values to deliver precise, high-quality images. The software confirms workpiece presence and placement and automatically adjusts as in-process variations occur.

Free Process Evaluation

Contact Nordson EFD to configure an automated dispensing system that meets your specific needs, with:

- A complimentary process evaluation by experienced fluid dispensing experts
- Samples processed for customer evaluation and approval prior to purchase



EFD

For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to www.nordsonefd.com.

Global

800-556-3484; +1-401-431-7000
info@nordsonefd.com

Europe

00800 7001 7001
infoefd.europe@nordsonefd.com

Asia

China: +86 (21) 3866 9006; china@nordsonefd.com
India: +91 80 4021 3600; india@nordsonefd.com
Japan: +81 03 5762 2760; japan@nordsonefd.com
Korea: +82-31-736-8321; korea@nordsonefd.com
SEAsia: +65 6796 9522; sin-mal@nordsonefd.com

©2024 Nordson Corporation v110524