

# PROPlus / PRO Series Automated Dispensing Systems

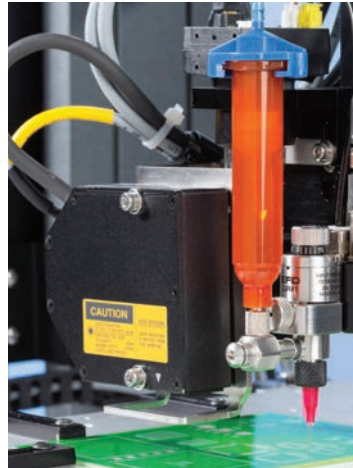
A complete, vision-guided automation solution



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



Smart vision CCD camera verifies product presence and orientation.



Integrated laser height sensor checks for surface height variations (PROPlus / L and PRO / L).

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

Item / Model	PRO3	PRO3L (Laser A / B)	PROPlus3	PROPlus3L (Laser A / B)
Part #	7362911	7362913 (A) 7362914 (B)	7363536	7363538 (A) 7363537 (B)
Part # Europe	7363829	7363830 (A) 7363831 (B)	7363650	7363652 (A) 7363651 (B)
Number of axes	← 3 axes →			
Maximum working area (X / Y / Z)	250 / 250 / 100 mm (10 / 10 / 4")	250 / 220 / 100 mm (10 / 9 / 4")	250 / 250 / 100 mm (10 / 10 / 4")	250 / 220 / 100 mm (10 / 9 / 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)	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)	50.5 kg (111.3 lb)	52.0 kg (114.6 lb)
Dimensions	720w x 690H x 590D mm (28w x 27H x 22D")	793w x 690H x 590D mm (31w x 27H x 22D")	720w x 690H x 590D mm (28w x 27H x 22D")	793w x 690H x 590D mm (31w x 27H x 22D")
Maximum speed (XY / 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 storage →			
General purpose I/O	← 8 inputs / 8 outputs (16 / 16 optional) →			
Input AC (to power supply)	← 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 380 W →			
Repeatability*	±0.004 mm/axis	±0.004 mm/axis	±0.003 mm/axis	±0.003 mm/axis
Vision	← CCD smart camera →			
DispenseMotion software	← Included →			
Tip detection	← Included →			
Laser height detection	Optional	Included	Optional	Included
Approvals	← CE, RoHS, WEEE, China RoHS →			
Warranty	← 1 year, limited →			

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

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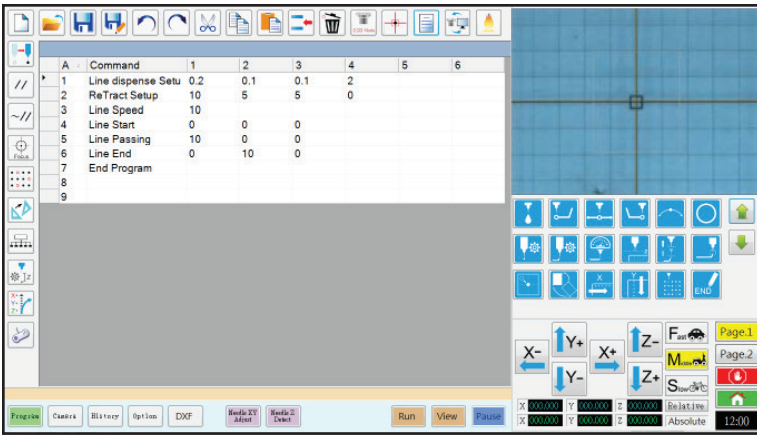
## PROPlus / PRO Series Specifications

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Item / Model	PRO4	PRO4L (Laser A / B)	PROPlus4	PROPlus4L (Laser A / B)
Part #	7360860	7360861 (A) 7360862 (B)	7363539	7363541 (A) 7363540 (B)
Part # Europe	7361353	7361354 (A) 7361355 (B)	7363653	7363655 (A) 7363654 (B)
Number of axes	← 3 axes →			
Maximum working area (X / Y / Z)	350 / 350 / 100 mm (14 / 14 / 4")	350 / 320 / 100 mm (14 / 13 / 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)	6.0 kg (13.2 lb)	6.0 kg (13.2 lb)
Weight	57.5 kg (126.8 lb)	59.0 kg (130.1 lb)	63.5 kg (140.0 lb)	65.0 kg (143.3 lb)
Dimensions	820w x 690H x 690D mm (32w x 27H x 27D")	833w x 690H x 690D mm (33w x 27H x 27D")	820w x 690H x 690D mm (32w x 27H x 27D")	833W x 690H x 690D mm (33W x 27H x 27D")
Maximum speed (XY / 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 storage →			
General purpose I/O	← 8 inputs / 8 outputs (16 / 16 optional) →			
Input AC (to power supply)	← 100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 380 W →			
Repeatability*	±0.004 mm/axis	±0.004 mm/axis	±0.003 mm/axis	±0.003 mm/axis
Vision	← CCD smart camera →			
DispenseMotion software	← Included →			
Tip detection	← Included →			
Laser height detection	Optional	Included	Optional	Included
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Vision-guided DispenseMotion software makes programming easy.

## 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.

## Laser Height Sensing

- Pinpoint accuracy with integrated laser height sensing
- Better dispensing

In addition to smart vision, the PROPlus / L and PRO / L Series also include a fully integrated height sensor that detects variations on the surface of a product. The system automatically adjusts the tip dispensing height, preventing uneven deposits and tip or workpiece damage.

## 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



For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to [www.nordsonefd.com](http://www.nordsonefd.com).

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