

PLS-450 series

Advanced automated labeling control systems designed to maximize productivity.

Paragon's automated print-and-apply monitoring and control system, the PLS-450, enables you to integrate sophisticated labeling systems with industry accepted factory networks, software and controls, on either a small-scale or enterprise-wide basis. With added capabilities, the PLS-450 network can remotely monitor and control a wide range of labeling systems, sensors, instruments, machines, and processes.

The PLS-450 monitoring and control system for automated labeling is comprised of four fundamental components.

Print-and-Apply Technology

Known throughout the industry for its modularity, integration and performance, the Paragon PLS-400 series is a reliable solution for item, carton and pallet labeling applications. Utilizing industry leading thermal printing solutions, the PLS-450 is an outstanding choice for labeling applications that are tightly integrated and controlled with Allen-Bradley high performance components.

PLC Control with GUI

Built on the foundation of the Allen-Bradley MicroLogix™ programmable logic controller (PLC) coupled with the PanelView™ family of graphical user interface (GUI) terminals from Rockwell Automation, this control station offers the user a rugged electronic interface solution in a variety of sizes and configurations. PanelView terminals are optimized for machine level interface. These terminals provide tight integration with the control system, Allen-Bradley DeviceNet communications protocol for local networking, and Ethernet for wide area interfaces.

Connectivity

The PLS-450 tightly integrates its network of labelers, sensors, scanners and other components via DeviceNet™. The DeviceNet network is a flexible and open option used to connect industrial devices to a network and to eliminate costly and time-consuming hardwiring. Direct connectivity improves communication and provides device-level diagnostics not available or easily accessible through hardwired I/O interfaces. Now, with the introduction of the PLS-450 series, automated labeling networks can leverage these industry proven capabilities to meet the most demanding print-and-apply applications.

Software Subsystem

With the core control and logic of the labeling network now implemented from a single point interface, a new level of functionality is implemented in the PLS-450 to take advantage of features and flexibility of the Allen-Bradley PLC and DeviceNet connectivity. Functions previously managed and monitored from an individual labeling system level are now easily managed and administered through the Paragon PLS-450 software subsystem. Up to six PLS-450 labeling systems and a wide array of DeviceNet peripherals are supported from a single GUI at the PLS-450 controller. With this centralized master control, complex, high volume labeling can be efficiently and economically addressed.

Paragon Labeling Systems ensures the highest value for your investment. You can benefit from converging technologies and future technologies, increasing the productivity of your operations with fast and accurate data anywhere, anytime!

PARAGON™
LABELING SYSTEMS

Modularity. Integration. Performance.









PLS-450 specifications

Print Method:	Direct thermal and thermal transfer
Controller Type:	Allen-Bradley MicroLogix PLC: PanelView Plus 1000 (10")
Communications Protocols:	Allen-Bradley DeviceNet; Ethernet
Media Supply:	12" (305mm) maximum outside diameter on 3" (76mm) standard core
Media Rewind:	Roll to roll with full carrier rewind capacity
Low Media Supply Sensing:	Standard detection and signal output when label and ribbon supplies are low or print interruption occurs
Print Engines:	Sato America, Inc., Zebra Technologies, Inc., and Datamax Corporation
Product Detect Sensor:	Standard photo-electric product sensor; operator adjustable delay between product detect and label application
Product Labeling Accuracy:	Up to 1/32" with consistent labels and controlled product handling
Air Requirements:	40-60 PSI, 2-6cfm (dependent upon applicator), clean, dry, non-oiled
Power Source:	115, 230 VAC, 50/60 Hz
Operating Temperature:	40°F to 100° (4°C to 38°)
Humidity:	10% to 95%, non-condensing
Machine Construction:	Plate aluminum chassis
Dimensions (Chassis):	26" L x 26" H x 15" D (660mm L x 660mm H x 381mm D) or 26" L x 26" H x 17" D (660mm L x 660mm H x 432mm D) dependent on print engine
Dimensions (Controller)	18" L x 51" H x 18" D (457mm L x 1296mm H x 457mm D)
Weight:	80 lbs (35.7 kg) to 87 lbs (38.8 kg) depending on print engine



Controller Features:	Stand alone single unit Stand alone multiple units Zero downtime using peer-to-peer configuration Zero downtime using master-slave configuration High speed	100% labeled using redundant system support Optional scanner nodes Optional reject or diverting systems RFID integration
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Applicator Module	Label Width*	Label Length*	Accuracy**	Speed***	Typical Applications	Labeling Configurations
Tamp 	.5" min. (13mm) to 7" max. (178mm)	.25" min. (6mm) to 12" max (306mm)	Up to +/- 1/32" (.79mm)	Up to 175 ppm for apply only; up to 120 ppm for print and apply	Cases, cartons, and packaged goods	Top, bottom, or side panels
Dual Tamp 	2" min. (51mm) to 7" max. (178mm)	2" min. (51mm) to 8.5" max (217mm)	Up to +/- 1/32" (.79mm)	Up to 20 ppm for apply only; up to 20 ppm for print and apply	Pallets, cases, and cartons	Custom-selectable as a leading and adjacent panel application; or, a side and rear panel
Roll On 	.5" min. (13mm) to 7" max. (178mm)	4" min. (102mm) to 14" max (357mm)	Up to +/- 1/32" (.79mm)	Up to 200 ppm for apply only; up to 100 ppm for print and apply	Cases, cartons, and packaged goods; well suited for long skinny labels	Top, bottom, or side panels
Corner Wrap 	2" min. (51mm) to 7" max. (178mm)	6" min. (153mm) to 16" max (408mm)	Up to +/- 1/32" (.79mm)	Up to 35 ppm for apply only; up to 25 ppm for print and apply	Cases and cartons	Leading and adjacent panels
Vacuum Blow 	.5" min. (13mm) to 4" max. (102mm)	.5" min. (13mm) to 4.5" max (115mm)	Up to +/- 3/32" (2.37mm)	Up to 200 ppm for apply only; up to 120 ppm for print and apply	Irregular and/or fragile products, packaged goods, cases, and cartons	Top, bottom, or side panels
Wipe On 	.5" min. (13mm) to 7" max. (178mm)	.5" min. (13mm) to 12" max (306mm)	Up to +/- 1/32" (.79mm)	Up to 200 ppm for apply only; not recommended for print and apply	Irregular and/or fragile products, packaged goods, cases, and cartons	Top, bottom, or side panels

*Dependent upon print engine (Sato, Zebra and Datamax)

**Dependent upon product handling and uniformity

***Dependent upon print engine, label size, applicator length, and data communication; RFID speeds and feeds subject to change based on encode and encrypt time



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