

# Productivity 1000® Stackable Micro programmable Controller

## The Productivity1000 Series PLC

... is the super compact yet highly capable member of AutomationDirect's Productivity controller family. Packed with many of the features of the Productivity series but housed in a smaller, slimmer design and with a CPU price of \$169, the Productivity1000 PLC will deliver the time, space, and budget savings your project needs.

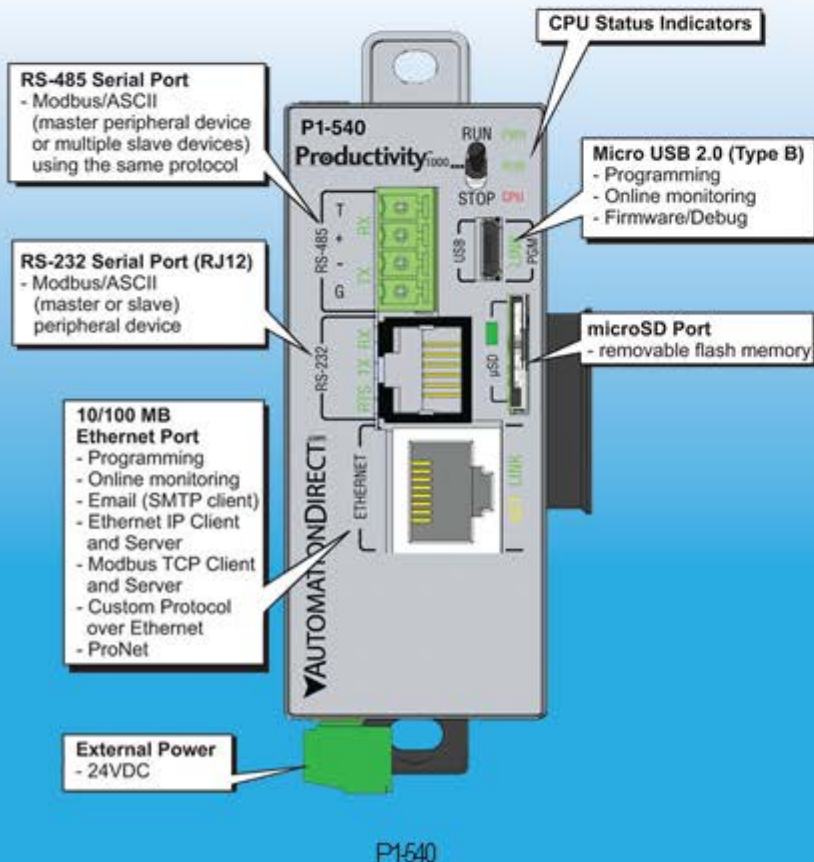
- Compact stackable design
- 50MB user memory easily handles complex applications
- 4 built-in communication ports for easy connectivity to your PC or industrial networks: micro USB, Serial RS-485, Serial RS-232, Ethernet 10/100Mbps
- Data logging up to 32GB on a microSD card (sold separately)
- Add up to 8 I/O modules for a total of 128 discrete I/O points or 32 analog I/O channels
- Choose I/O wiring needs from spring clamp, screw terminal or the popular ZipLink wiring solution

## Productivity1000 Processing Power

- High-performance P1-540 CPU with 50MB of user memory,
- Four built-in communication ports
- Plug-and-play USB programming (uses standard A-micro B cable)
- Tag database and program documentation storage in CPU (program pre-loaded on PC not necessary)
- High-speed Ethernet port for HMI and peer-to-peer or business system networking (no Ethernet communications module needed)
- Support for EtherNet/IP devices
- Two serial ports for peripheral device interface or controller networking
- Micro SD data logging right from the CPU

## Micro-Modular, Stackable System

- Full lineup of discrete, analog and specialty I/O modules
- Auto-discovered I/O modules
- Combination of up to 128 discrete I/O points and 32 analog I/O channels
- I/O modules easily added / removed using single latch mechanism
- No module placement restrictions and no power budget limitations
- QR (Quick Response) codes printed on each module for the latest specifications / wiring diagrams



## Productivity1000 Features

- CPU with 4 communication ports
- Plenty of discrete and analog I/O modules
- FREE full-featured ProductivitySuite software
- Hardware auto-discovery
- Choose from three wiring options
- Slim DIN rail density form factor
- All project files (program, tag name database and all the program documentation) in the CPU
- Run-time editing and easy data logging on CPU
- Secure Web server to access data files and system tags

## Programming Software Highlights

- User defined tag-based programming for descriptive I/O naming
- Simple-to-use instructions and Easy Math to eliminate complex ladder logic
- Tools for quick access to setup, programming, debugging and control
- Task Manager for quick and easy prioritization of Ladder Logic code
- Structure data types
- Tag name database programming
- Task management
- Advanced "fill-in-the-blank" instructions
- Seamless database connectivity
- Graphical HTML-based HelpFile
- Run-time editing
- Project file and user documentation stored in CPU
- MicroSD card slot on the CPU for data logging
- Tag database import to C-more HMI
- All in an intuitive Windows-based programming environment

## Full Two-Year Warranty plus

- 30-Day money-back guarantee on returns
- FREE ground shipping on orders of \$49 or more
- FREE #1 rated technical support
- FREE ProductivitySuite programming software
- FREE 30-day training certificate included with each CPU & Starter Kit

# AutomationDirect » Productivity1000®

Part Number	Description	Accessories
All require either P1-10RTB (screw type terminal), P1-10RTB-1 (spring clamp terminal), or Ziplink Cable/Connector		ZL-RTB20 (-1)
		Plus cable below
P1-01AC	AC/DC power supply, 120-240 VAC or 125 VDC nominal input. External power supply optional.	
P1-540	CPU - 50MB - microSD slot - (1)RJ45 Ethernet (1)RJ12 RS-232 (1)RS-485 (4-pin term) (1)microB-USB port, ext 24 VDC req - battery included.	
P1-08SIM	(8) Simulator input module	N/A
P1-08ND3	(8) DI - 12-24 VDC sinking/sourcing, 2 commons	ZL-P1-CBL10*
P1-08NA	(8) DI - 120-240 AC, 2 common	ZL-P1-CBL10*
P1-08TD1	(8) DO - 3.3-24 VDC, sinking, 1 common, 1A/point	ZL-P1-CBL10*
P1-08TD2	(8) DO - 12-24 VDC, sourcing, 1 common, 1A/point	ZL-P1-CBL10*
P1-15TD1	(15) DO - 3.3-24VDC, sinking, 2 common, 1A/point	ZL-P1-CBL18*
P1-15TD2	(15) DO - 12-24VDC, sourcing, 2 common, 1A/point	ZL-P1-CBL18*
P1-08TA	(8) DO - 120-240 AC, 2 common, 0.5A/point	ZL-P1-CBL10*
P1-08TRS	(8) RO - 6-24 VDC/6-120 VAC, (8) Form A, (2) Form C, 8 isolated common(s), 1 point(s) per common, 3A/point	ZL-P1-CBL18*
P1-16TR	(16) RO - 6-24 VDC/6-240 VAC, (16) Form A, 2 common(s), 8 point(s) per common, 2A/point, 8A/common	ZL-P1-CBL18*
P1-15CDD1	(8) DI - 12-24 VDC, sinking/sourcing - (7) DO - 3.3-24 VDC, sinking, 1A/point (Combination Module)	ZL-P1-CBL18*
P1-15CDD2	(8) DI - 12-24 VDC, sinking/sourcing - (7) DO - 12-24 VDC, sourcing, 1A/point (Combination Module)	ZL-P1-CBL18*
P1-16CDR	(8) DI - 24 VAC/VDC, sinking/sourcing, (8) DO - 6-24 VDC/6-240 VAC, relay, (8) Form A (SPST) relays, 1A/point (Combination Module)	ZL-P1-CBL18*
P1-04ADL-1	(4) AI - 13-bit, 0-20 mA, external 24 VDC required.	ZL-P1-CBL10*
P1-04ADL-2	(4) AI - 13-bit, 0-10 VDC, external 24 VDC required.	ZL-P1-CBL10*
P1-04DAL-1	(4) AO - 12-bit, 4-20 mA, external 24 VDC required.	ZL-P1-CBL10*
P1-04DAL-2	(4) AO - 12-bit, 0-10 VDC, external 24 VDC required.	ZL-P1-CBL10*
P1-4ADL2DAL-1	(4) AI - 13-bit, 0-10 VDC, (2) AO - 12-bit, 0-10 VDC, external 24VDC required	ZL-P1-CBL10*
P1-4ADL2DAL-2	(4) AI - 13-bit, 0-20mA, (2) AO - 12, bit, 4-20ma, external 24VDC required	ZL-P1-CBL10*
P1-04THM	(4) T/C, 16-bit, type(s): J, E, K, R, S, T, B, N, C. (1) P1-10RTB screw terminal block included.	N/A
P1-04RTD	(4) RTD, 16-bit, type(s): Pt100, Pt1000, JPt100, Cu10, Cu25, Ni120	N/A
P1-04NTC	(4) Thermister - 16-bit resolution, type(s): 2252, 10K-AN Type 3, 10K-CP Type 2, 5K, 3K and 1.8K ohm. (1) P1-10RTB screw terminal block included.	N/A
P1-10RTB	Productivity1000 terminal block, 10-pin screw type - if you choose not to use the Zlinks	
P1-10RTB-1	Productivity1000 terminal block, 10-pin spring clamp - if you choose not to use the Zlinks	
Note	* Select the cable length by replacing the * with: Blank = 0.5m, -1 = 1.0m, or -2 = 2.0m	

# AutomationDirect » Productivity Series

Feature	Productivity3000			Productivity2000	Productivity1000
	P3-550 CPU	P3-550E CPU	P3-530 CPU	P2-550 CPU	P1-540 CPU
User Display on CPU	✓	✓	---	✓	---
Built-In USB Programming Port	✓	---	---	✓	✓
Built-In Serial Ports (RS-232 & RS-485)	2	2	2	2	2
Built-In Ethernet Ports (RJ45)	2	2	1	2	1
EtherNet/IP Protocol	✓	✓	---	✓	✓
Modbus RTU (Serial) & Modbus TCP (Ethernet)	✓	✓	✓	✓	✓
Remote Expansion Support	✓	✓	---	✓	---
Local Expansion Support	✓	✓	✓	---	---
Intelligent Module Support	✓	✓	✓	✓	---
Total I/O Capacity	59,840	59,840	3,520	4,320	128
Hot Swappable I/O Modules	✓	✓	✓	✓	---
Integrated GSDrive Support	✓ 32 max.	✓ 32 max.	---	✓ 16 max.	---
Data Port (Data logging & project transfer)	✓ USB	✓ USB	✓ USB	✓ microSD	✓ microSD*
Total Memory	50 MB	50 MB	25 MB	50 MB	50 MB
Average Scantime (µsec) (1K boolean, 128 I/O)	380	380	380	200	1300

\* Project transfer from microSD card is not supported in the P1-540 CPU