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AutomationDirect vs Allen Bradley PLC's

A head to head comparison

Introduction:

AutomationDirect programmable controller products range from nano-sized fixed I/O Programmable Logic Controller (PLC) units to modular PLC and PAC systems with thousands of I/O. From simple machine sequencing to complex process control, you will find a quality industrial programmable controller to suit your application. This paper deals with comparing AutomationDirect Productivity3000 (PAC) and Do-more PLCs with Allen Bradley Compact and Control Logix PLCs.



Do-more H2 CPU Modi

Automation Direct Do-more



Allen Bradley Compact Logix



Automation Direct Productivity 3000



Allen Bradley Control Logix

Below are some AutomationDirect v/s Allen Bradley PLCs comparisons:

Features	Do-more	Productivity 3000	Rockwell Compact Logix	Rockwell Control Logix
CPU Cost	\$399 (Ethernet version)	P3-530 (5 COM ports) - \$399 P3-550(7 COM ports) - \$599	\$1099 - \$6500 5370 series (special series for machine builder) 1768 series (commonly used) 1769 series (commonly used)	\$5113+ 1756 series 1756.L 70s new series
Backplane Cost	\$132 - \$238	\$149 - \$279	none	\$296+
Total I/O	65536	116,160	128,000	128,000
Total Memory	262kB	50MB	0.5 to 3 MB standard, plus 0.5 to 1 MB safety	2 – 32 MB (for different controllers)
Number of PID loops	256 easily	256 easily	100+	100+
Data Logging	Generates '.csv' file for easy access	Generates '.csv' file for easy access	Generates '.csv' file for easy access	Generates '.csv' file for easy access
Built-in Ethernet	Ethernet RJ45-10/100 base-T One Ethernet port, supports programming, TCP/IP, UDP/IP and Modbus/TCP (H2DM1E)	Ethernet RJ45-10/100 base-T two 10/100 Mbps Ethernet ports: one for connecting the remote slave to the CPU, other for connecting Modbus TCP/IP for programming and monitoring as well as communications to any Modbus TCP enabled device	2 Ethernet port included in 5370 series	No built-in Ethernet port available, Ethernet port provided for \$1768+ (has built in web server)
Built-in USB	USB port included	USB port included	USB port - not available	USB port is included in 1756-L7 controller, but not the 1756-L6 line
Built-in RS-232 port	RS-232 – supports programming. K-sequence slave, MODBUS RTU Master/slave and ASCII In/OUT	RS-232: (RJ12, 1200-115.2k Baud) ASCII, Modbus/RTU	No built-in RS-232 port in 5370 but is available in 1768 and 1769 series	RS-232 serial port ASCII, Modbus/RTU
Built-in RS-422/ 485 port	RS-422/485 not available	RS-422/485: Removable Terminal Included, (1200-115.2k Baud) ASCII, Modbus/RTU	No built-in RS-422/485 port	No built-in RS-422/485 port
Supports Analog IO	Supports 12 bit and 16 bit current and voltage input and output (8 channels) from \$255+	Supports all 16 bit analog input and output (8 channels) from \$232.50+	Supports 16 and 32 bit Analog IO (8 channels) starts at \$464+	Supports 16 and 32 bit Analog IO (8 channels) from \$1103+
Supports Thermocouple Inputs + RTD	Thermocouple module for \$310 (4 channels)	Thermocouple module available for \$433.50 (8 channels)	Thermocouple module from \$942 (6 channels)	Thermocouple module for \$1920+ (6 channels)
Supports both Servo and Stepper Motion Control	High speed counter module available for \$291 (2 channels)	High speed counter module available for \$329 (2channels)	Motion control units starting at \$707 (2 channels)	Motion control for \$1143+ (2 channels)
Software	Free	Free	Prices range from service edition \$585 which allows you to load programs, but not create new ones to Professional Edition for \$6565	Prices range from service edition \$585 which allows you to load programs, but not create new ones to Professional Edition for \$6565
Demo	Full version	Full version	90 day trial, offline only	90 day trial, offline only

Tag based	Yes	Yes	Yes	Yes
Reusable Subroutines	Subroutine can be reused within a program (values will be overwritten).	Sub tasks are easily reusable.	Yes, Using Add On Instructions or Subroutines	Yes, Using Add On Instructions or Subroutines
Peer link	Yes, transferring data between PLCs can be done via iBox instruction.	Yes, Data transfer between PLCs can be done easily.	Yes, transferring data between PLCs is seamless using Produced and Consumed Tags	Yes, transferring data between PLCs is seamless using Produced and Consumed Tags
Battery Backed Memory Clock/Calendar	Has real time clock/calendar Includes battery	Has real time clock/calendar Includes battery	Has real time clock/calendar Includes battery	Has real time clock/calendar , and rechargeable and non-replaceable battery
Run mode edits	Allowed	Allowed	Allowed	Allowed
Floating point Math	Yes	Yes	Yes	Yes
Rack sizes	3, 4, 6 and 9 slot bases	3, 5, 8 and 11 slot bases	Do not use racks	Multiple rack size generic to any processor
AC base power supply	Any 205 AC Rack power supply	P3-01AC for \$133	Specific AC power supplies for different controller	Specific AC power supplies for different controller
DC base power supply	Any 205 DC Rack power supply	P3-01DC for \$139	Specific DC power supplies for different controller	Specific DC power supplies for different controller
Technical Support	Provides technical support at no charge	Provides technical support at no charge	Provides technical support based on amount of installed hardware charge, amount of service, contract based	Provides technical support based on amount of installed hardware charge, amount of service, contract based

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