

The Innovative Solution with High Performance,
an Abundant Selection and Amazing Expandability.



Automation for a Changing World

Delta Programmable Logic Controller DVP Series



reddot design award
winner 2010

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 **DELTA**
Smarter. Greener. Together.

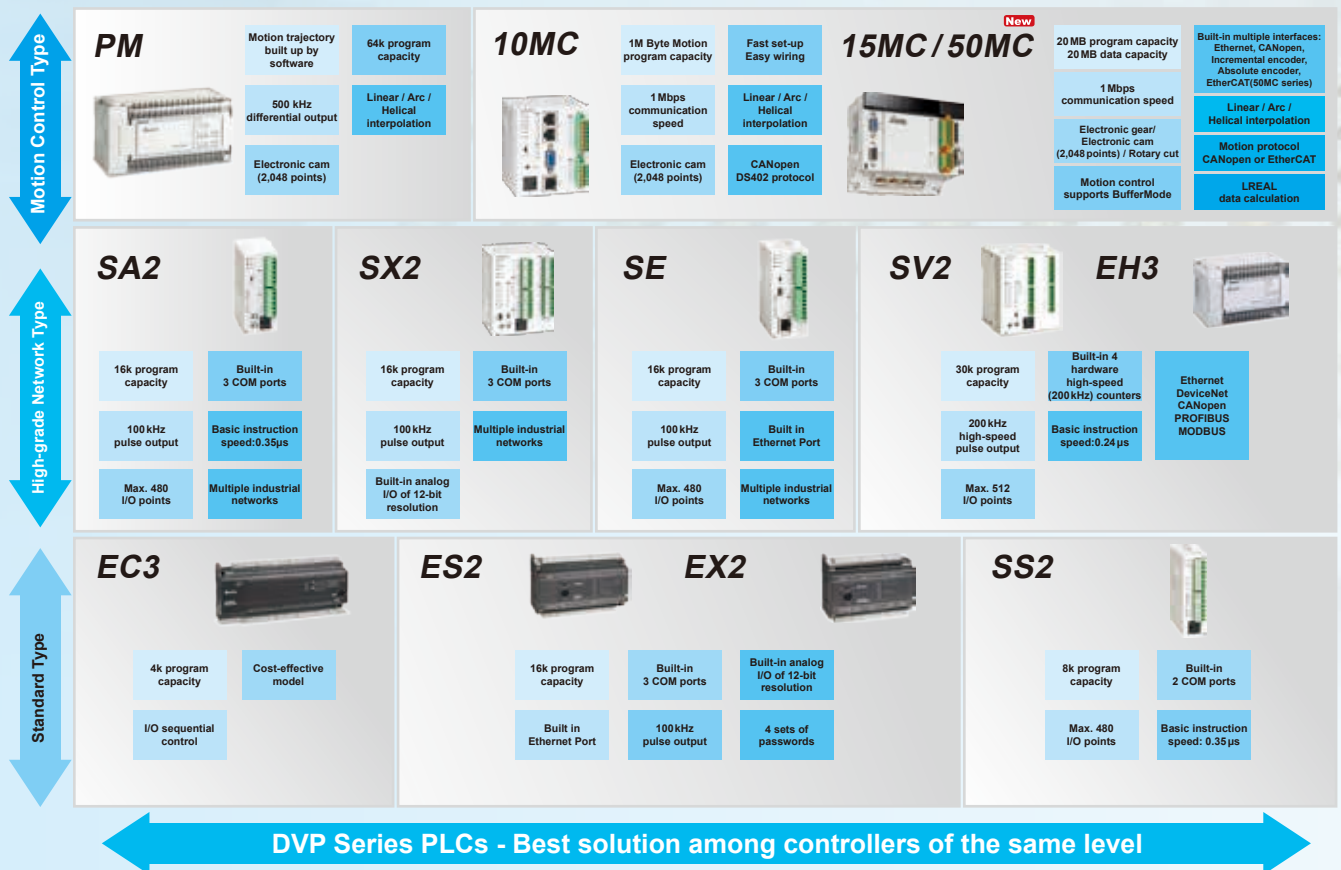
The Perfect Small PLC Revolution!

After launching our first DVP series PLCs for industrial automation applications, Delta has been devoted to delivering more innovative products that satisfy customers' needs and meet the requirements of a wide variety of applications.

Delta PLCs offer a broad range of controllers and modules which all feature high performance, multiple functions and efficient program editing tools. In addition to the user-friendly programming software and faster execution speed, we also provide complete industry-focused solutions, motion control solutions, and industrial fieldbus solutions with Delta's new PLC series.

We integrate our PLCs with industrial automation products to deliver total solutions for various field applications.

As your most reliable partner, Delta is dedicated to creating value for our customers.





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Basic PLC DVP-EC3

Applicable for sequence control and simple RS-485/MODBUS communication

- ▶ Built-in I/O: 10/14/16/20/24/30/32/40/48/60
- ▶ Program capacity: 4 k steps
- ▶ COM port: Built-in RS-232 & RS-485 ports (10/14-point models do not support RS-485), compatible with MODBUS ASCII/RTU protocol
- ▶ Supports 2 points (Y0, Y1) of independent high-speed (max. 10kHz) pulse output
(Hardware version V8.00 and above support this function)

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2/2	20 kHz/10 kHz	1	20 kHz	1	4 kHz

Standard PLC / Analog I/O PLC DVP-ES2/EX2

Standard PLCs with integrated communication and highly efficient processing ability for your control systems

- ▶ 32-bit CPU for high-speed processing
- ▶ Standard PLC DVP-ES2 Series: 16/20/24/32/40/60/80 I/O points for a variety of applications
- ▶ Analog I/O PLC DVP-EX2:
 - Built-in 12-bit 4 analog inputs / 2 analog output; and 14-bit analog I/O extension module
 - Built-in PID auto tuning function for a complete analog control solution
- ▶ Built-in 1 RS-232 and 2 RS-485 ports
- ▶ Program capacity: 16k steps
- ▶ Data register: 10k words
- ▶ Max. execution speed of basic instructions: 0.35 μ s
- ▶ RTC function and file register (5k words) (hardware version 2.0 and above)
- ▶ Highly efficient processing ability: 1k steps of programs can be completed within 1ms
- ▶ Max. 100 kHz pulse control; specific motion control instructions (mark/masking and instant frequency changing) available for multi-axis applications
- ▶ Up to 4 levels of password protection secures your source programs and intellectual property

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2/6	100 kHz/10 kHz	2	100 kHz	1/3	15 kHz/5 kHz



Standard PLC with built-in CANopen interface DVP32ES200RC/TC

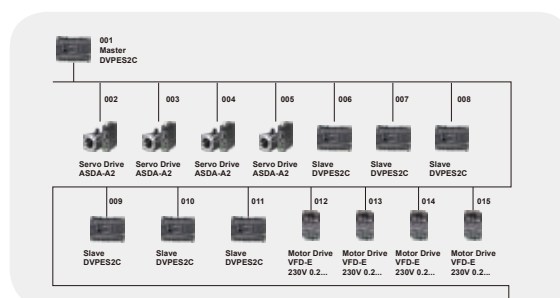
Boosts productivity with high execution speed and built-in CANopen interface, and specializes in noise-immunity and easy wiring

- ▶ Built-in 1Mbps CANopen interface; COM3 supports standard CANopen DS301 protocol
- ▶ Versatile communication types: PDO, SDO, synchronous (SYNC), Emergency, NMT and many more
- ▶ 1Mbps high-speed transmission for large data:
 - Max. PDO transmission: up to 390 bytes
 - Max. PDO receiving: up to 390 bytes
- ▶ Ability to connect with 16 slaves via CANopen
- ▶ Built-in 1 RS-232 and 1 RS-485 ports

Fast processing
speed



High-speed industrial
network: CANopen



Standard PLC with built-in Ethernet interface DVP-ES2-E

Higher communication speed and easier external connection with built-in Ethernet

- ▶ Built-in I/O: 20/32/40/60
- ▶ Communication speed: 100M
- ▶ Supports MODBUS and EtherNet/IP (slave)
- ▶ Built-in 1 RS-232 and 2 RS-485 ports

Temperature / Analog I/O PLC DVP30EX200R/T

Integrated controller for temperature control and analog input

- ▶ Built-in 16-bit 3 analog inputs / 12-bit 1 analog output
- ▶ Built-in PID auto tuning function to offer a complete analog control solution
- ▶ 3 analog inputs for Pt / Ni temperature input, precision of 0.1 degree can be readily achieved

Built-in Ethernet			
MODBUS		EtherNet/IP	
Number of Connections	Server: 16 Client: 8	Number of Connections	TCP: 4 CIP: 8
Max. Data Exchange (each connection)	100 words	Max. Data Exchange (each connection)	250 words
		RPI	5~1,000 ms
		PPS	1,000 PPI

Built-in Analog I/O in DVP-EX2 Model			
Analog Input		Analog Output	
Channels	3	Channels	1
Resolution	16-bit	Resolution	12-bit
Spec.	-20 ~ 20 mA or -10 ~ 10 V	Spec.	0 ~ 20 mA or -10 ~ 10 V

Built-in Temperature Control Function		
Sensor	Pt100/Pt1000	Ni100/Ni1000
Temperature Range	-200°C ~ 800°C	-100°C ~ 180°C
Value Range	-2,000 ~ 8,000	-1,000 ~ 1,800

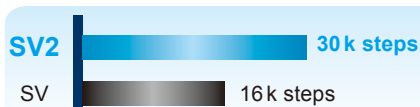


High Performance Slim PLC

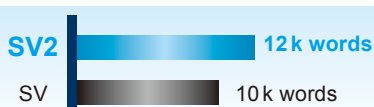
DVP-SV2

High-end model of the DVP-S Series with larger program capacities and data registers for more demanding and complex applications

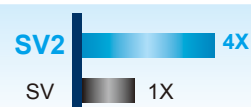
Program capacity



Data register



Execution speed



Excellent Motion Control

- ▶ High-speed pulse output: 4 axes of 200 kHz pulse output
- ▶ Supports 4 hardware 200 kHz high speed counters
- ▶ Various motion control instructions to achieve high-speed and high-precision positioning control for labeling machines, packaging machines, printing machines and more applications
- ▶ Linear / arc interpolation motion control function
- ▶ Provides up to 16 external interrupt pointers

Complete Program Protection

- ▶ Auto backup function prevents program and data loss even when the battery runs out
- ▶ Secondary backup function saves an extra copy of programs and data to enhance program safety
- ▶ Up to 4 levels of password protection protects your source programs and intellectual property

Supports DVP-S Series modules (left-side and right-side); additional new Ethernet communication command (ETHRW)

Outstanding Operation Performance

- ▶ 32-bit CPU + ASIC dual processors support floating point operations
- ▶ Max. execution speed of basic instructions: 0.24μs

The DVP-24SV2 model has a built-in 2AI (12-bit) with Y10/Y12 of 10kHz output.

Built-in 4 Hardware High-Speed Counters							
Standard		Hardware high-speed counter					
1-phase 1 input		1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
8	10 kHz	4	200 kHz	4	200 kHz4	4	200 kHz

The X11 / X15 have been upgraded to 200kHz since 2016 October



Standard Slim PLC DVP-SS2

Economic and compact model

- ▶ 32-bit CPU for high-speed processing
- ▶ Max. I/O: 480 points
- ▶ Program capacity: 8 k steps
- ▶ Data register: 5 k words
- ▶ Max. execution speed of basic instructions: 0.35 μ s
- ▶ Built-in RS-232 and RS-485 ports (Master/Slave)
- ▶ Supports standard MODBUS ASCII/RTU protocol and PLC Link function

Motion Control Functions

- ▶ 4 points of 10 kHz pulse output
- ▶ 8 points of high-speed counters: 20 kHz/4 points, 10 kHz/4 points

Advanced Slim PLC DVP-SA2

Advanced model supporting 2-axis interpolation

- ▶ 32-bit CPU for high-speed processing
- ▶ Program capacity: 16 k steps
- ▶ Data register: 10 k words
- ▶ Max. execution speed of basic instructions: 0.35 μ s
- ▶ Built-in 1 RS-232 and 2 RS-485 ports (Master/Slave)
※ Note: RS-485 will be reduced to 1 port in DVP28SA2
- ▶ Supports standard MODBUS ASCII/RTU protocol and PLC Link function
- ▶ No battery required; RTC function operates for 15 days after power off
- ▶ Supports DVP-S Series modules (left-side and right-side)
※ Note: DVP28SA2 only supports right-side modules

Motion Control Functions

- ▶ 4 points of high-speed pulse output: 100 kHz/2 points, 10 kHz/2 points
- ▶ 8 points of high-speed pulse input: 100 kHz/2 points, 10 kHz/6 points, 1 set of A/B phase 50 kHz
- ▶ Supports 2-axis linear and arc interpolation

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
4/4	20 kHz/ 10 kHz	2	20 kHz	2/2	10 kHz/ 5 kHz

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2/6	100 kHz/10 kHz	2	100 kHz	1/3	50 kHz/5 kHz



Analog I/O Slim PLC DVP-SX2

Analog model with highly efficient PID control function

- ▶ 32-bit CPU for high-speed processing
- ▶ Program capacity: 16k steps
- ▶ Data register: 10k words
- ▶ Max. execution speed of basic instructions: 0.35 μ s
- ▶ Built-in 4 analog inputs / 2 analog outputs
- ▶ Built-in mini USB, RS-232 and RS-485 ports (Master/Slave)
- ▶ Supports standard MODBUS ASCII/RTU protocol and PLC Link function
- ▶ PID Auto Tuning function for highly efficient PID control
- ▶ No battery required; RTC function operates for at least one week after power off (hardware version 2.0 and above)
- ▶ Supports DVP-S Series modules (left-side and right-side)

Motion Control Functions

- ▶ 4 points of high-speed pulse output: 100 kHz/2 points, 10 kHz/2 points
- ▶ 8 points of high-speed pulse input: 100 kHz/2 points, 10 kHz/6 points
- ▶ Supports 2-axis linear and arc interpolation

Built-in Analog I/O			
Analog Input		Analog Output	
Channels	4	Channels	2
Resolution	12-bit	Resolution	12-bit
Spec.	-20~20 mA or -10~10 V or 4~20 mA	Spec.	0~20 mA or -10 V~10 V or 4~20 mA

Network Type Advanced Slim PLC DVP-SE

Complete network communication functions for advanced industrial applications

- ▶ 32-bit CPU for high-speed processing
- ▶ Program capacity: 16k steps
- ▶ Data register: 12k words
- ▶ Max. execution speed of basic instructions: 0.64 μ s
- ▶ Built-in Ethernet
DVP12SE : MODBUS & Ethernet/IP (Explicit message)
DVP26SE : MODBUS & Ethernet/IP (Adapter mode, explicit message)
- ▶ Built-in mini USB port, RS-485 port*2 and Ethernet port that supports MODBUS TCP and EtherNet/IP Slave (adapter)
※ Note: RS-485 will be reduced to 1 port in DVP26SE
- ▶ IP Filter functions as firewall for first line protection against malware and network threats
- ▶ Supports DVP-S Series modules (left-side and right-side)
※ Note: DVP26SE only supports right-side modules
- ▶ No battery required; RTC function operates for 15 days after power off

Motion Control Functions

- ▶ 4 points of high-speed pulse output: 100 kHz / 2 points, 10 kHz / 2 points
- ▶ 8 points of high-speed pulse input: 100 kHz / 2 points, 10 kHz / 6 points, 1 set of A / B phase 50 kHz
- ▶ Supports 2-axis linear and arc interpolation

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2/6	100 kHz/ 10 kHz	2	100 kHz	1/3	50 kHz/ 5 kHz