Automation for a Changing World

Delta Programmable Logic Controller

DVP Series

reddot design award
winner 2010

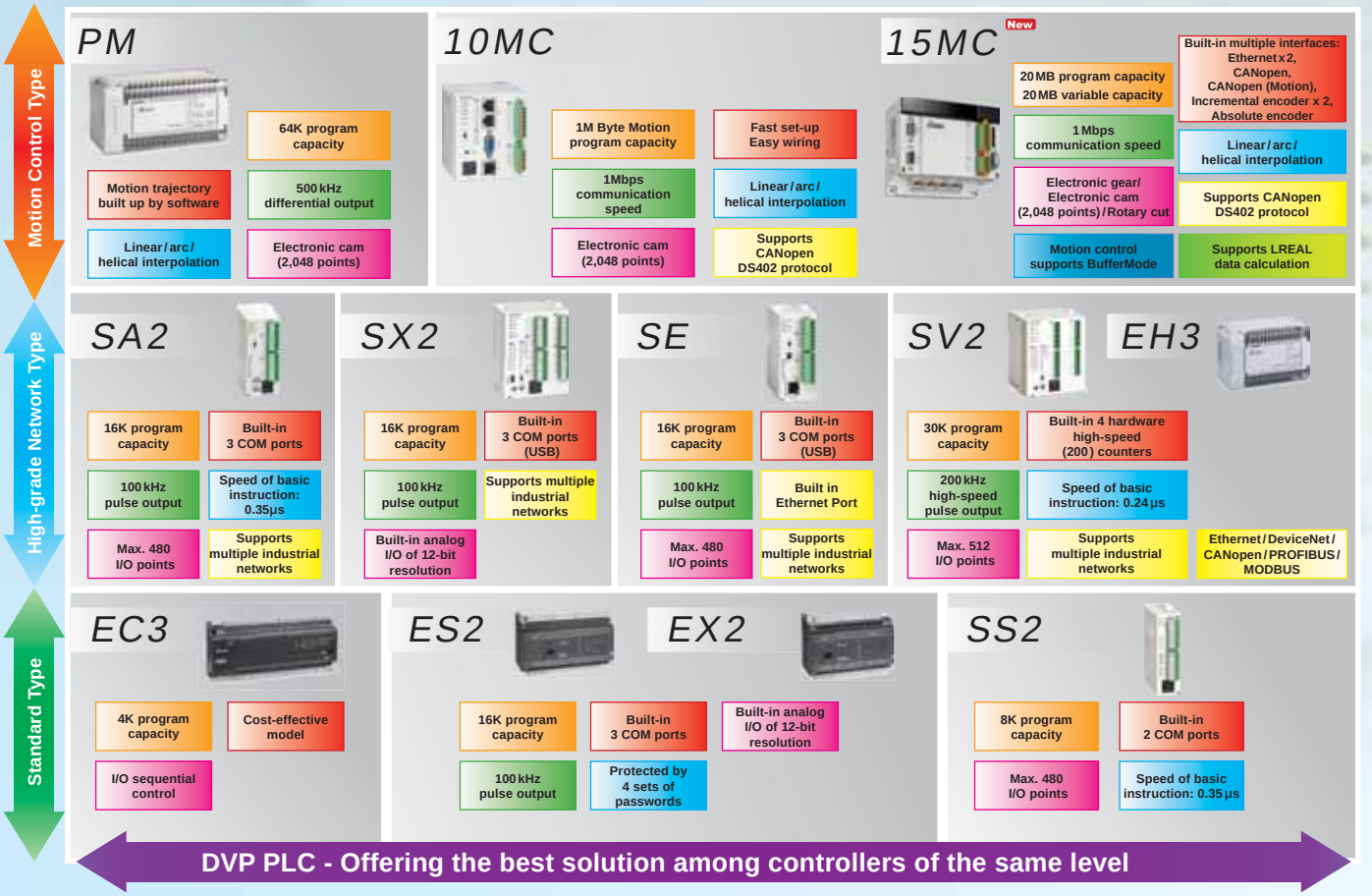
www.deltaww.com

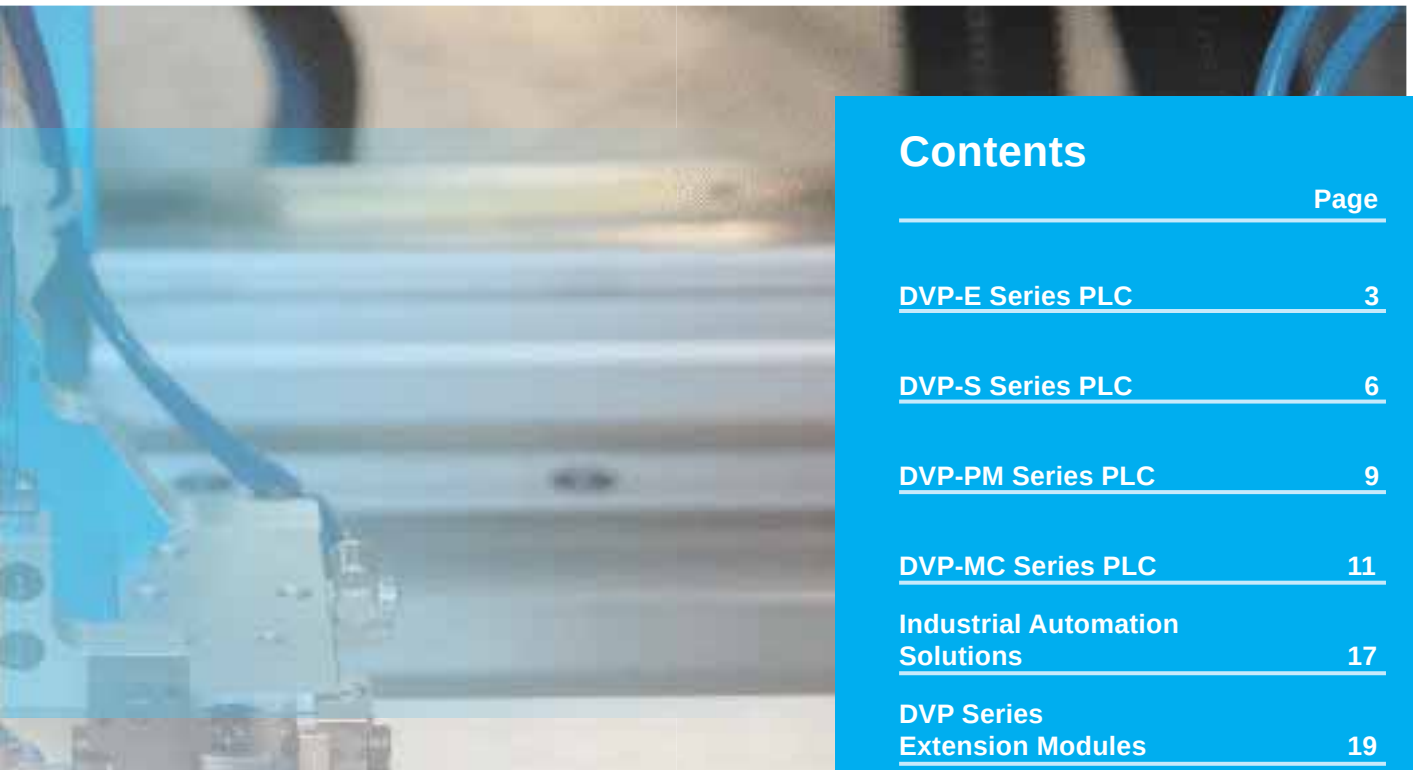
DELTA
Smarter. Greener. Together.

The Perfect Small PLC Revolution!

After launching the first DVP series PLCs for industrial automation applications, Delta has devoted itself to delivering more innovative products that satisfy customers' needs and meet the requirements for 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 Delta's industrial automation products to deliver a total integrated solution. As your most reliable partner, Delta is dedicated to creating value for our customers.





Contents

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2nd Generation Standard Type PLC

DVP-ES2/EX2

Integrated communication functions. Built-in 1 RS-232 and 2 RS-485 ports. V2.0 and later version models support real-time clock (RTC) and file register (5 k words)

- Adopts 32-bit CPU
- DVP-ES2 provides 16/20/24/32/40/60 I/O points for a variety of applications
- DVP20EX2 provides 12-bit 4 analog inputs/2 analog outputs. With the aid of 14-bit analog input/output extension module and built-in PID auto tuning function, it offers a complete analog control solution
- Program capacity: 16 k steps/Data register: 10 k words
- Execution speed: LD: 0.35μs, MOV: 3.4μs
- Highly efficient processing ability: 1 k steps of programs can be completed within 1ms
- Max.100 kHz pulse control. Specific motion control instructions such as mark/masking and instant frequency changing are available for multi-axes 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

New Member of DVP-ES2 Series

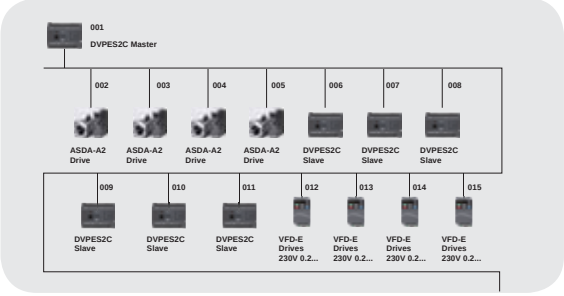
2nd Generation Standard Type PLC with built-in CANopen interface

DVP32ES200RC/TC

Inheriting the fast execution speed of ES2, this series boosts productivity with a built-in 1Mbps CANopen interface and specializes in noise-immunity and easy wiring

Fast processing speed — High-speed industrial network: CANopen

- Adopts 32-bit CPU
- COM3 supports standard CANopen DS301 protocol
- Provides versatile communication types: PDO, SDO, synchronous (SYNC), Emergency, NMT and many more
- 1Mbps high speed transmission for large data
  Maximum PDO transmission up to 390 bytes
  Maximum PDO receiving up to 390 bytes
- Ability to connect with 16 slaves via CANopen
- CANopen Builder software is used to construct slave nodes



New Member of
DVP-EX2 Series

2nd Generation Temperature / Analog I/O PLC

DVP30EX200R / T

Integrated controller able to control temperature and analog input

- Adopts 32-bit CPU
- Built-in 16-bit 3 analog inputs / 12-bit 1 analog output
- With built-in PID auto tuning function, it offers a complete analog control solution
- Provides 3 analog inputs for PT / NI temperature input, precision of 0.1 degree can be readily achieved
- Suitable for the specific industries that require temperature and analog input control such as boiler industries and HVAC

Basic Type 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. 10 kHz) pulse output

Note: Versions over V8.00 support this function

Built-in Analog I/O in 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

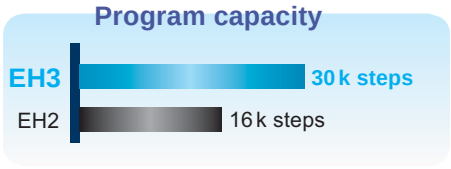
Built-in Temperature Control Function		
Sensor	Pt100 / Pt1000	Ni100 / Ni1000
Temperature Range	-200 °C ~ 800 °C	-100 °C ~ 180 °C
Value Range	-2000 ~ 8000	-1000 ~ 1800

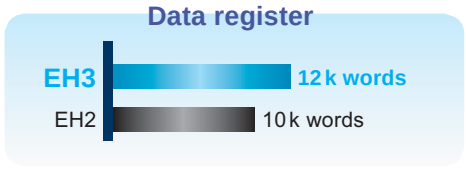
Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	**Bandwidth**	**Counters**	**Bandwidth**	**Counters**	**Bandwidth**
2 / 2	20 kHz / 10 kHz	1	20 kHz	1	4 kHz

High Performance PLC

DVP-EH3

The new generation DVP-EH3 PLC is the high-end model of the Delta DVP-E series
It provides larger program capacity and data registers for more demanding and complex applications





Excellent Motion Control

- High-speed pulse output: 4 axes of 200 kHz pulse output (DVP32 / 40 / 48 / 64 / 80EH00T3)
- Supports max. 4 hardware 200 kHz high-speed counters
- Increases many motion control instructions to meet applications that require high-speed and high-precision positioning control such as labeling machines, packaging machines and printing machines
- Offers linear / arc interpolation motion control
- Provides up to 16 external interrupt pointers

Complete Program Protection

- Auto backup function to prevent the loss of programs and data even when the battery runs out
- Second copy function provides a backup for extra insurance when one set of programs and data are damaged
- Up to 4-level password protection for your source programs and intellectual property

Outstanding Operation Performance

32-bit CPU + ASIC dual processors support floating point operations. The max. execution speed of basic instructions is able to reach 0.24μs.

Flexible Function Extension Modules & Cards

Multiple selections of extension modules and function cards provide analog I/O, temperature measurement, additional single-axis motion control, high-speed counting, 3rd serial communication port and Ethernet communication card are available.

PLC Link

PLC Link allows users to link up a max. of 32 units to the network without having to install extra communication extension modules.

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 kHz	4	200 kHz

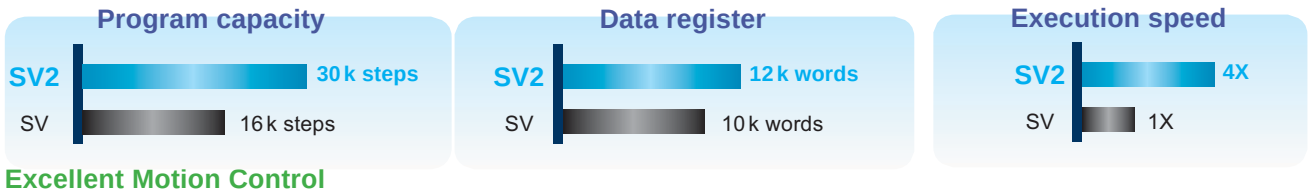
The specification of high-speed input and output on this page are applicable only for DVP40EH00R3 / DVP40EH00T3.

Refer to the I/O specifications table on page 20 for more information of other models.

High Performance Slim PLC

DVP-SV2

The new generation DVP-SV2 PLC is the high-end model of the Delta DVP-S series. It provides larger program capacities and data registers for more demanding and complex applications



Excellent Motion Control

- High-speed pulse output: 4 axes of 200 kHz pulse output
- Supports 2 hardware 200 kHz and 2 hardware 20 kHz high speed counters
- Increases many motion control instructions to meet the applications that require high-speed and high-precision positioning control such as labeling machines, packaging machines and printing machines
- Offers linear / arc interpolation motion control
- Provides up to 16 external interrupt pointers

Complete Program Protection

- Auto backup function to prevent the loss of programs and data even when the battery runs out
- Second copy function provides a backup for extra insurance in the event that one set of programs and data are damaged
- Up to 4-level password protection protects your source programs and intellectual property

Supports DVP-S series left-side and right-side modules. Added new ETHRW instruction for Ethernet communication

Outstanding Operation Performance

- 32-bit CPU + ASIC dual processors support floating point operations. The max. execution speed of basic instructions is able to reach 0.24μs.

24SV2 PLC 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	2 / 2	200 kHz / 20 kHz	2 / 2	200 kHz / 20 kHz	2 / 2	200 kHz / 20 kHz

2nd Generation Standard Slim PLC

DVP-SS2

Economic and Compact PLC Max. 480 I/O points

- Adopts 32-bit CPU
- Program capacity: 8k steps / Data register: 5k words
- Execution speed: LD: 0.35μs, MOV: 3.4μs
- 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 10kHz pulse output
- 8 points of high-speed counters: 20kHz / 4 points, 10kHz / 4 points

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	20kHz / 10kHz	2	20kHz	2 / 2	10kHz / 5kHz

2nd Generation Advanced Slim PLC

DVP-SA2

Advanced PLC Supporting Left-side High Speed Modules

- Adopts 32-bit CPU
- Program capacity: 16k steps / Data register: 10k words
- Execution speed: LD: 0.35μs, MOV: 3.4μs
- Built-in 1 RS-232 and 2 RS-485 ports (Master / Slave)
- Supports standard MODBUS ASCII / RTU protocol and PLC Link function
- No battery required. Maintenance-free (Real-time clock operates for 15 days after power off)
- Supports DVP-S series left-side and right-side modules

Motion Control Functions

- 4 points of high-speed pulse output: 100kHz / 2 points, 10kHz / 2 points
- 8 points of high-speed pulse input: 100kHz / 2 points, 10kHz / 6 points, 1 set of A / B phase 50kHz
- 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	100kHz / 10kHz	2	100kHz	1 / 3	50kHz / 5kHz

2nd Generation Analog I/O Slim PLC

DVP-SX2

Compact PLC with Outstanding Analog Functions. 4 Analog Inputs, 2 Analog Outputs, High Efficient PID Auto Tuning Performance

- Adopts 32-bit CPU
- Program capacity: 16 k steps / Data register: 10 k words
- Execution speed: LD: 0.35μs, MOV: 3.4μs
- Built-in mini USB, RS-232 and RS-485 ports (Master / Slave)
- Supports standard MODBUS ASCII / RTU protocol and PLC Link function
- Supports real-time clock for version 2.0 and above (no battery required) Operates for at least one week after power off
- Supports DVP-S series left-side and 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
- 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

The most complete network type slim PLC in the industry. Provides 8 digital inputs and 4 digital outputs. Built-in mini USB, Ethernet, and 2 RS-485 ports

- Adopts 32-bit CPU
- Program capacity: 16 k steps / Data register: 12 k words
- Execution speed: LD: 0.64μs, MOV: 2μs
- Built-in Ethernet and supports MODBUS TCP and Ethernet / IP Slave (Adapter)
- IP Filter function is a firewall that offers the first line of defense and provides protection from malware and network threats
- Supports DVP-S series left-side and right-side modules
- No battery required. Maintenance-free (Real-time clock 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
- 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

Pulse-train Motion Controller

DVP-PM

General Purpose Motion Controller

DVP10PM00M

2/3/4/5/6-axis linear interpolation motion control. Highly accurate PWM 200 kHz output, resolution 0.3% 8 groups of high-speed captures (mark correction, frequency measurement), comparative output, Mark/Mask function (for bag making)

- Built-in 24 I/O points. Max. 256 I/O points
- Program capacity: 64 k steps/Data register: 10 k words
- Execution speed: LD: 0.13μs, MOV: 2.1μs
- Built-in RS-232 and RS-485 ports
- Supports standard MODBUS ASCII/RTU protocol

Motion Control Functions

- High-speed pulse output: built-in 6 sets of A/B phase pulse outputs
- 2 sets of 200 kHz output, 4 sets of 1 MHz output
- 6 sets of high-speed counters and hardware digital filter for counting
- Supports MPG inputs
- Single-axis motion control function (supports MPG, single-speed and two-speed positioning)
- Electronic gear function

Professional Motion Controllers

DVP20PM00D/M/DT

Compatible with G-code/M-code. 3-axis linear/arc/helical interpolation. Not only a motion controller but also an extension module

- Functions as an extension module with DVP-PM and DVP-EH2 series
- PM Series (as an extension module) requires only Start/Stop command from the main PLC to function as a stand-alone motion controller without the limitation of PLC cycle time

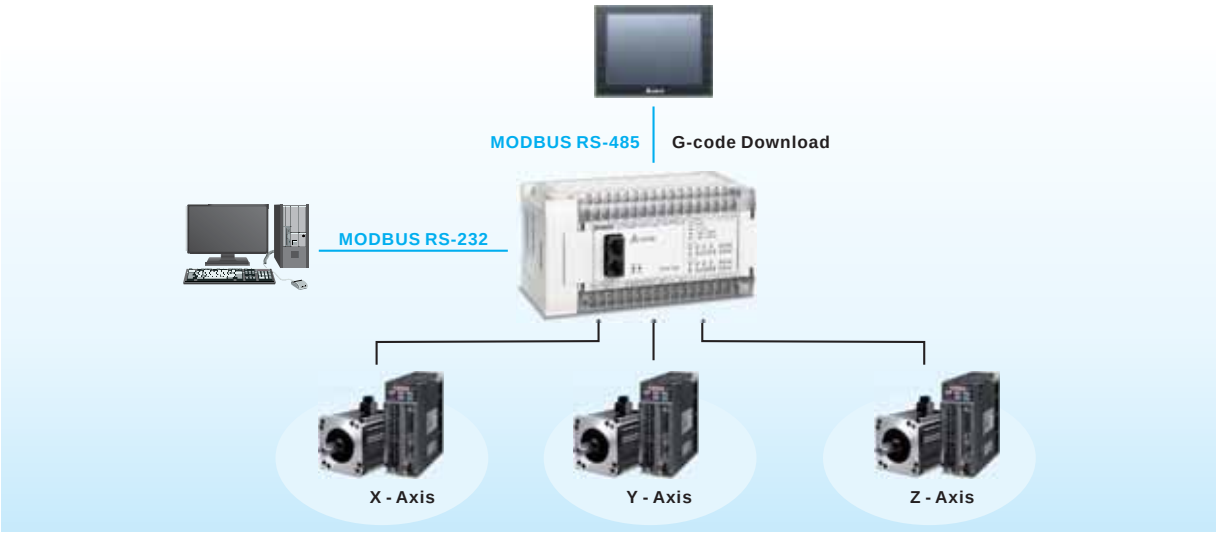
Supports electronic cam (2048 points) function for flying shear and rotary cut applications

- Built-in 16 I/O points. Max. 512 I/O points
- Program capacity: 64 k steps/Data register: 10 k words
- Built-in RS-232 and RS-485 ports
- Supports standard MODBUS/ASCII/RTU protocol

Motion Control Functions

- Built-in A/B phase differential signal outputs: 2 sets (DVP20PM00D)/3 sets (DVP20PM00M). Max. differential output frequency is 500 kHz
- Supports MPG inputs
- Single-axis motion control function (supports MPG, single-speed and two-speed positioning)
- Electronic gear function

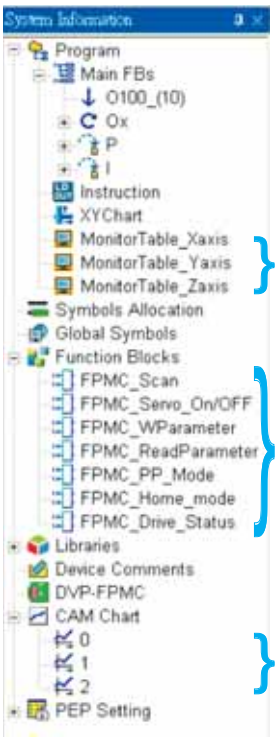
DVP-PM Series High-speed Pulse-train Motion Controller



Function Cards for DVP-PM		
Model Name	**Specifications**	Features
DVP-FPMC	Ethernet / CANopen communication card *Supports DVP-EH2 function cards: DVP-F2AD, DVP-F2DA, DVP-F232S, DVP-F485S	1. Complies with CANopen CiA301 V4.0.2 protocol. 2. Supports CANopen CiA402 V2.0 synchronous axes, 126 asynchronous axes. 3. Provides high-speed program upload/download via Ethernet.

PMSoft

The programming software for G-Code editing, motion path simulation, positioning route planning and electronic cam setup



Variable Declaration

Separate from the program. The corresponding physical I/O point of the variable is defined only after the program is compiled. Users do not need to modify the program.

Function Block

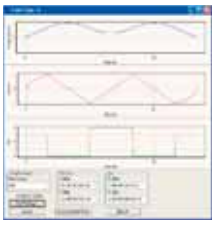
A complicated project can be divided into many function blocks. A function block can be used repeatedly. The import / export function makes the programming more convenient.

Full Monitoring

The "program monitoring" and "device monitoring" allow users to keep track of the operation of the program.

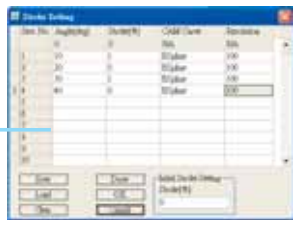
Motion Network Function Block

PLCopen Function Block function



Electronic Cam

Electronic cam editing



Network Type Motion Controller

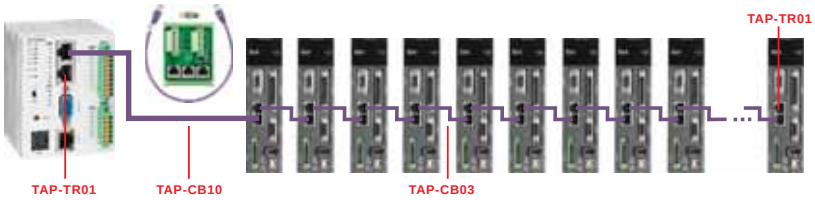
DVP-MC

CANopen Motion Controller

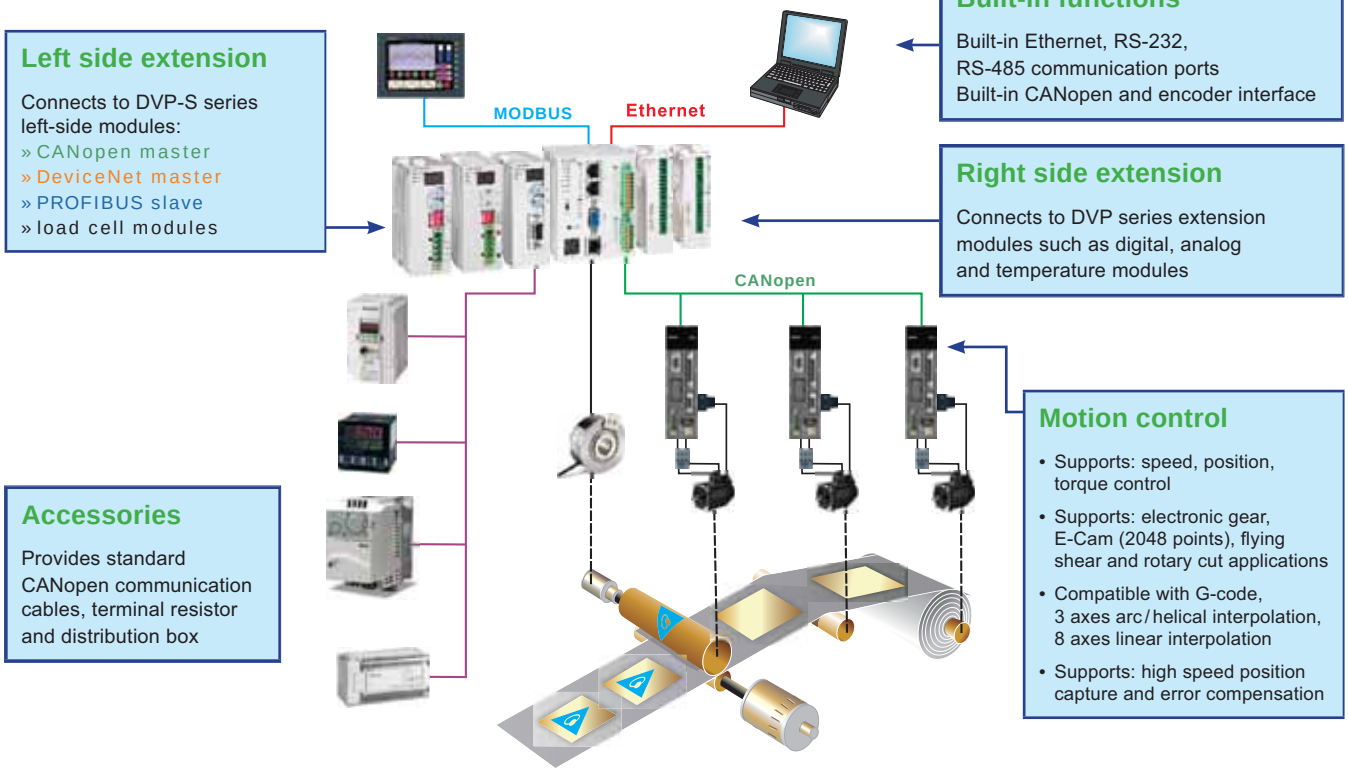
DVP10MC11T

Up to 16 axes can be controlled through high-speed CANopen communication, offering system stability and easier wiring.
Built-in E-Cam, flying shear and rotary cut instructions

- Built-in 12 I/O points
  (8 sets of high-speed inputs,
  4 sets of high-speed outputs)
- Max. 240 inputs and 240 outputs
- Built-in motion control instructions
  for easier operation
- Synchronously controls 4 axes in 2ms
  and 8 axes in 4ms
- High precision control with interpolation function



DVP-MC Series Control Structure



CANopen Accessories		
Model Name	**Specifications**	Features
UC-CMCXXX-01A	CANopen sub-line	RJ45 connector for both ends
UC-DN01Z-01A/02A	CANopen main-line/sub-line	Adopt AWG18/AWG24 CANopen cables for long distances
TAP-CN01/02/03	Distribution box	Built-in terminal resistor 120 ohm
TAP-TR01	Terminal resistor	Terminal resistor 120 ohm

CANopen Motion Controller

DVP15MC11T New

The DVP-MC Series is a multi-axis motion controller designed for the CANopen network architecture. It supports CANopen DS301 and DSP402 with built-in motion control instructions (BufferMode and Jerk) for flexible configuration and fast project development. DVP15MC11T controls up to 24 real axes via Motion port. It also supports single axis motion control instructions such as speed, position, torque, homing, position setup and multi-axis motion control instructions such as electronic gear, e-Cam, rotatory cut and G-code.

DVP15MC11T is built-in with multiple communication interfaces. It can be easily connected to other equipment without purchasing additional communication modules. It also provides high-speed and reliable motion control via CANopen for printing, packaging, wire cutting, robots and other automation control industries.

Motion control

- Controls up to 24 real axes.
  (virtual axis no.: 1 ~ 32, can't be repetitive with real axis no.)
- Built-in motion control instructions for flexible configuration
- Supports encoder axis and virtual axis
- Supports single axis motion control instructions such as speed, position, torque, homing, and position setup
- Supports electronic gear and E-Cam
- Supports application instructions such as rotary cut
- Supports G-code: 8 axes linear / arc / helical interpolation
- Supports coordinate motion control instructions

Performance

- 1 GHZ high-speed floating point operation
- High-precision computing: support LREAL (Double-precision floating-point format)
- Synchronization time:
  4 axes in 2 ms, 8 axes in 4 ms
- Program capacity: 20 MB
- Variable capacity: 20 MB

External interfaces

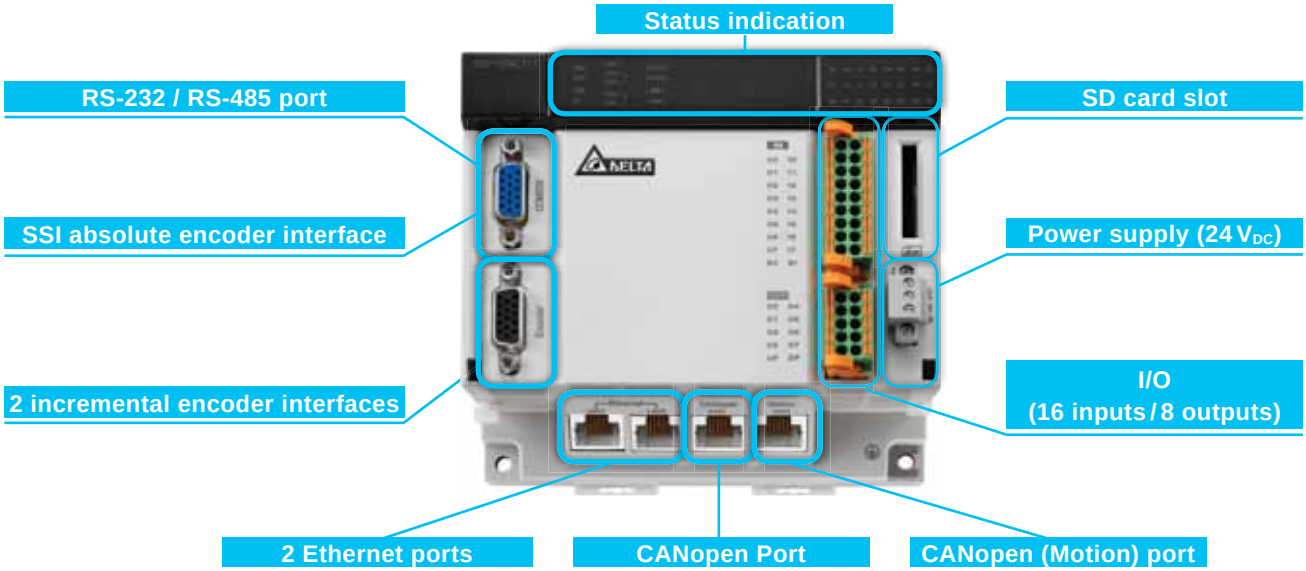
- 1 CANopen port as host or slave station
- 1 CANopen (Motion) communication port for motion control
- 16 high-speed inputs / 8 high-speed outputs
- 2 incremental encoder interfaces
- 1 SSI absolute encoder interface
- 2 Ethernet ports
- 1 SD card slot
- 1 RS-232 port and 1 RS-485 port
- Left-side extension: up to 8 DVP-S Series left-side modules
- Right-side extension: compatible with DVP-S Series right-side modules (240 I/O, 8 special modules)

Motion network and wiring

- CANopen motion network
- Up to 1 Mbps communication speed
- Up to 100 m communication distance (at 500 Kbps)
- Simple wiring, plug and play (communication cable, terminal resistor and distribution box)

DVP15MC11T interface

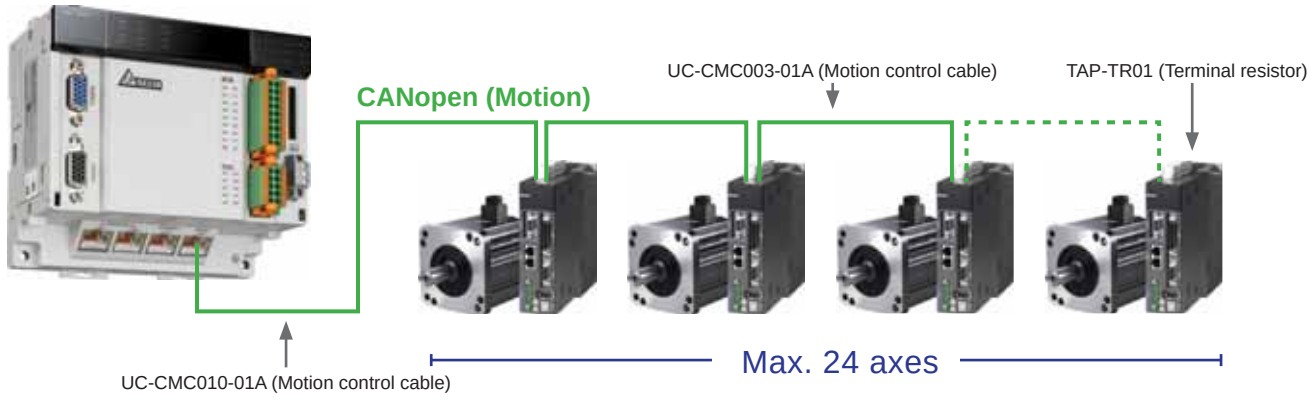
Built-in with multiple communication interfaces, it can be easily connected to other equipment without purchasing additional communication modules.



Simple wiring, plug and play motion control network

DVP15MC11T communicates with servo drives (axes) via CANopen network. It features stable CANopen communication, simple wiring, plug and play functions. Delta provides communication cable, terminal resistor and distribution box.

*Please refer to "Accessories" for detail information.

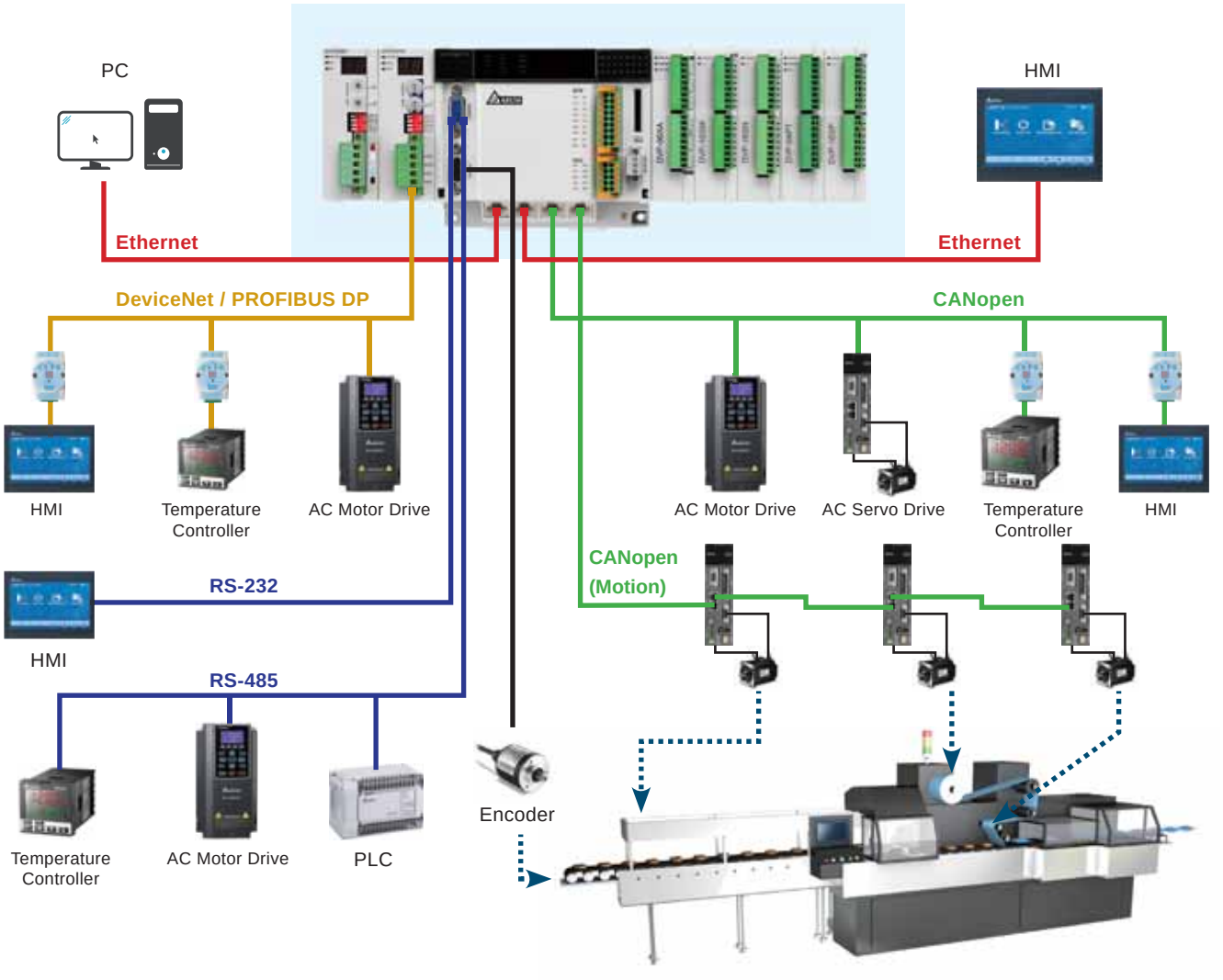


Compatible servo drives for CANopen (Motion) port

Only ASDA-A2-XXXX-M models support CANopen communication (XXXX represents output power and input voltage). These models can be connected to DVP15MC11T CANopen (Motion) port and DVP10MC11T for motion control networks. The other CANopen port can be connected to all equipment that supports CANopen networks. ASDA-A2-XXXX-M servo drives and ECMA Series servo motors with high-precision encoder (20-bit resolution and 1,280,000 pulse/rev) provide high positioning accuracy and low-speed operation stability.

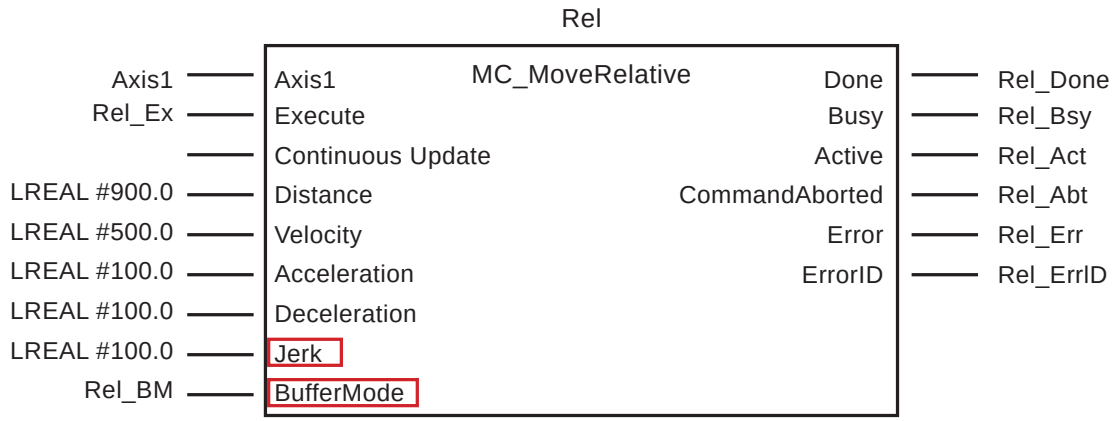
System structure

DVP15MC11T provides multiple industrial networks. As the structure shown below, DVP15MC11T can be connected to a variety of industrial automation equipment via Ethernet (upper layer), CANopen, DeviceNet, PROFIBUS DP (middle layer) and RS-485 (lower layer, support MODBUS)

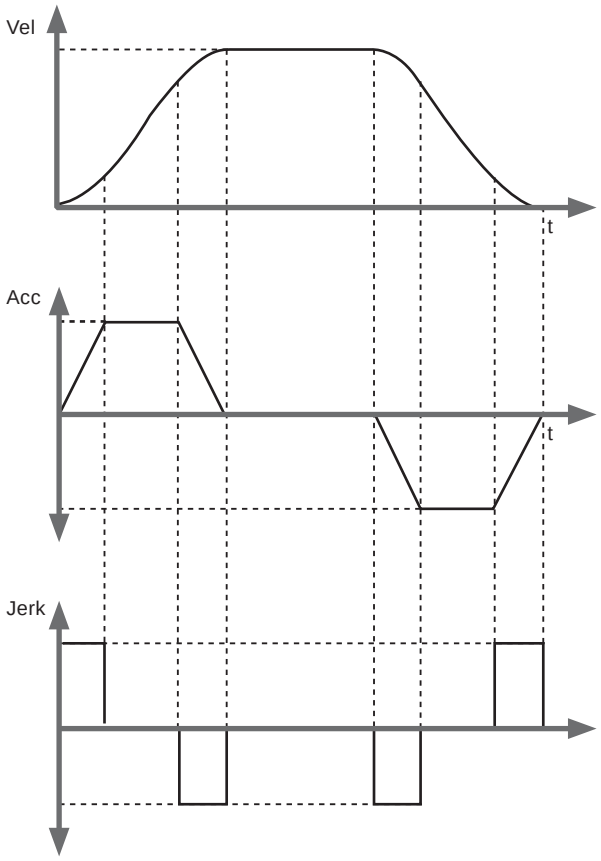


Motion Control

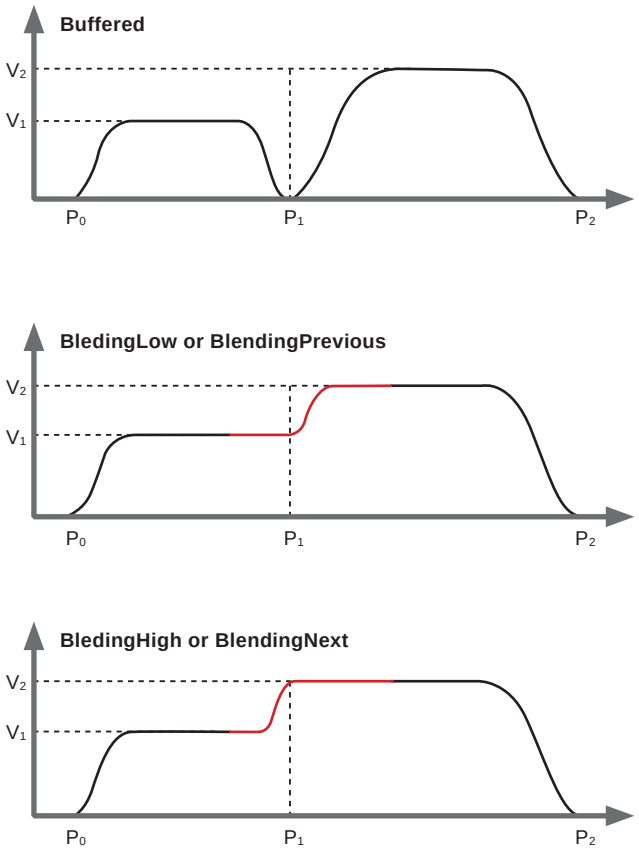
Supports BufferMode and Jerk motion instructions. See the red box below.



Supports Jerk motion instruction: modify the Jerk value to make the velocity curve smoother



Supports BufferMode motion instruction: enables smooth transition between 2 instructions



CANopen Builder

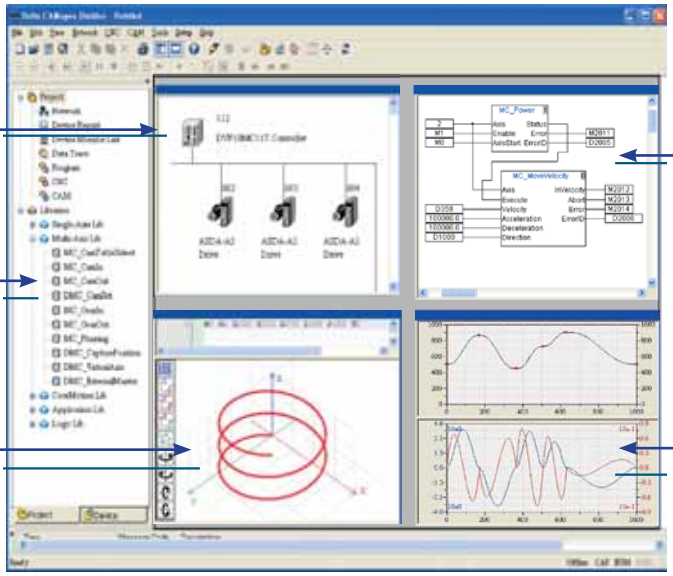
Featuring network arrangement, motion control programming, G-code editor / graph preview and E-Cam curve planning

Supports international standard function blocks for motion control, enhancing program editing efficiency

- **Network arrangement**
  Supports network scanning for listing all the equipment

Supports international standard function blocks for motion control

- **G-code editor and preview**
  Supports G-code editing and preview, direct DXF files import available



- **Program editing**
  Supports CFC, function blocks connection and syntax check

- **E-Cam curve planning**
  Users can plan E-Cam curves according to their needs for more complex control

Professional Motion Control Applications

Designed as the most outstanding and economical motion controller, DVP-PM provides flying shear, rotary cut, electronic cam and many high-level functions to achieve highly precise motion control.

Robot Arm

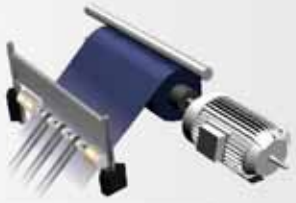
Electronic Cam (E-Cam) function enables the robot arm to perform multi-axis control. After the required positions are memorized in the PLC, users can enable the electronic cam function to create the E-Cam profile and conduct trajectory tracking and multi-axes motion control required in robot arm applications.

High-Speed Cutting Machine

Average PLC cutting motion is limited by operation speed, poor synchronization, large amounts of calculations and long CPU processing time, resulting in a disproportionate cutting result and affecting the quality of end products. The basic demands, however, can be fulfilled under low speed while rough surface and low quality appear under high speed. The electronic cam function offered by DVP-PM and DVP-MC is able to generate dynamic cam curves for rotary cut to ensure precise cutting results.

Digital Board Cutting Machine

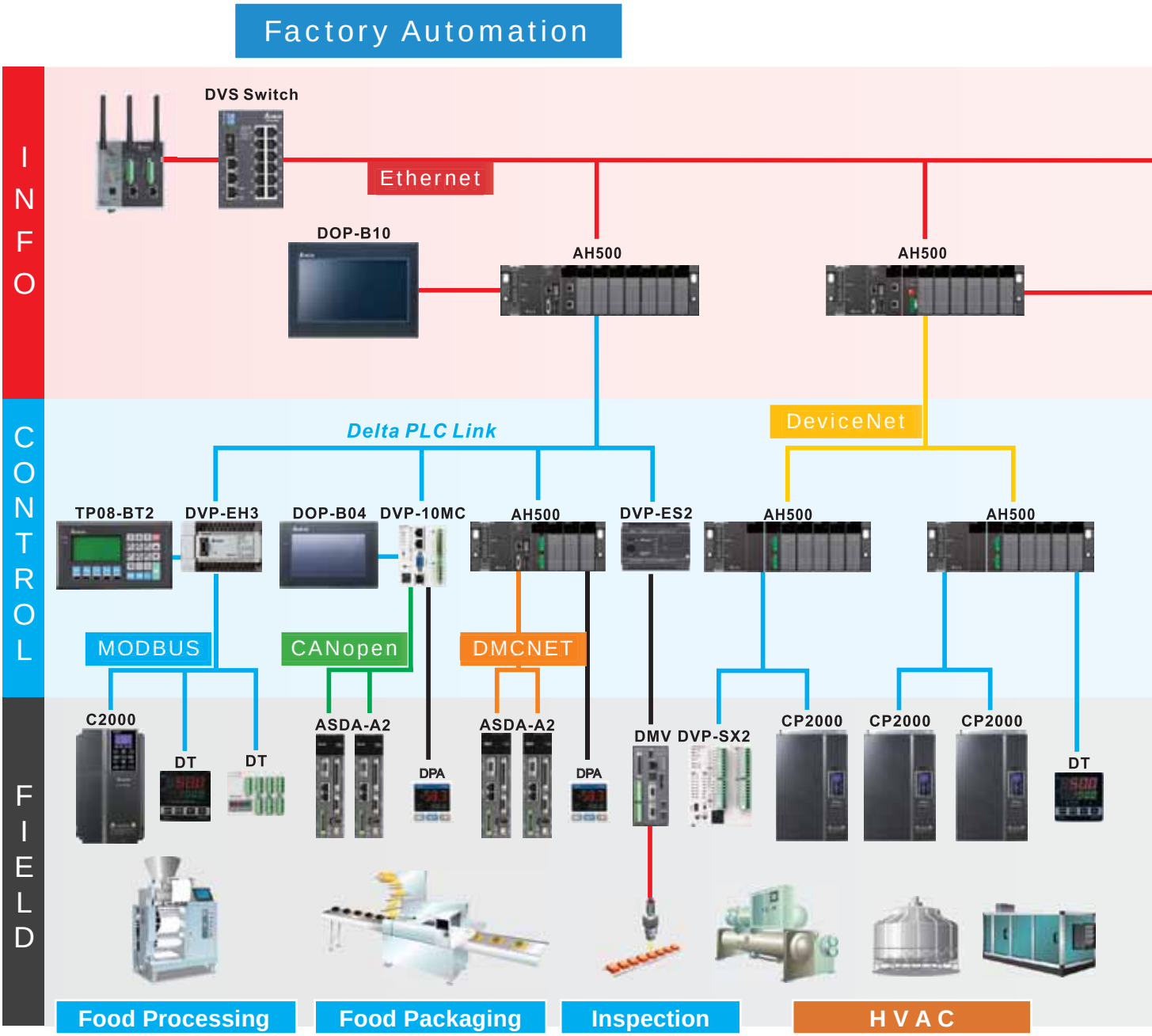
The flying shear function built-in to the DVP-PM is able to complete synchronous conveyance and cutting speed, and ensure precise cutting results on conveyor belts.



CNC Lathe

DVP-PM controls multi-axis motion. Two axes complete the motion by linear or arc interpolation, and the other two work independently, controlling the independent or synchronous ascending / descending of the vertical axis on two sides.

Industrial Automation Solutions



Ethernet

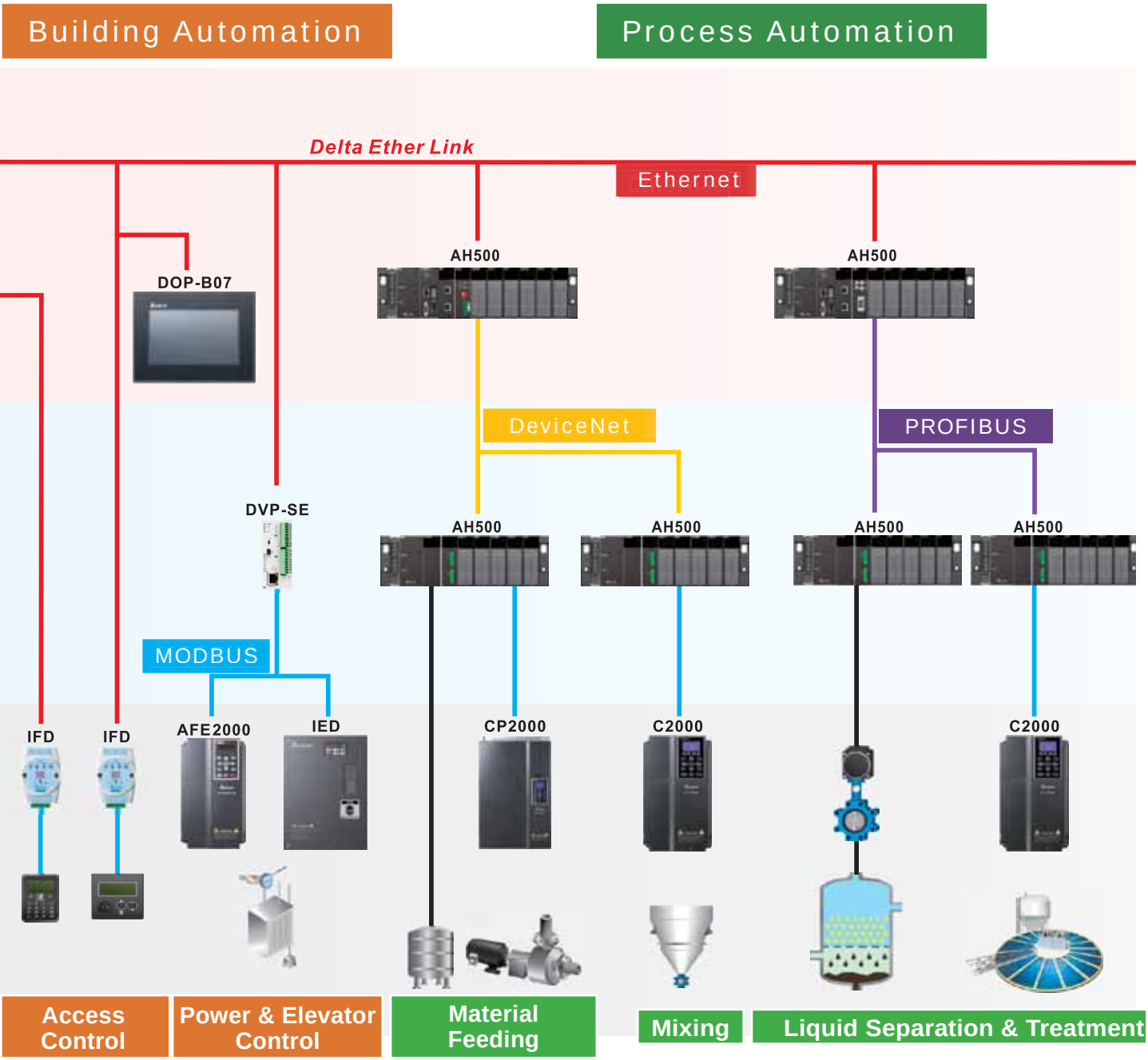
Delta Ethernet products transcend the limits of transmission distance, offering 10/100Mbps high-speed transmission and efficient remote monitoring.

CANopen

Delta CANopen products support CANopen DS301 and DSP402 protocols, and are able to achieve multi-axis, high-speed and complex motion control with max. speed of 1Mbps.

DMCNET

Delta DMCNET offers 10Mbps communication speed, constructing a real-time control system which supports multi-axis synchronous motion. The system can be connected to servo motors, remote digital or analog I/O modules, step motors, DD motors, linear motors, MPG modules, and more.



MODBUS

Delta MODBUS serial products integrate easily with devices of other brands, and for communication among RS-232, RS-422, RS-485 and custom-defined formats, offering greater flexibility for on-site applications.

DeviceNet

Delta DeviceNet products support interconnections among products of different brands and wire-saving network topology. The 500kbps stable and noise resistant fieldbus data transmission is suitable for harsh industrial sites.

PROFIBUS

Delta PROFIBUS products support 12Mbps communication speed and are suitable for distributed automated industrial control networks.

EH Series PLC and Extension Modules

Small PLC with the Highest Operation Efficiency

DVP-EH3

- Max. 512 I/O points
- 200 kHz high-speed pulse output
- Brand-new high-speed extension modules
- Supports linear / arc interpolation
- L type supports left-side extension

Function Cards

For RS-232 / RS-422 / RS-485 Communication (COM3 Port, DVP-EH3 series PLC only)

DVP-F232

DVP-F422

DVP-F485

For Ethernet Communication

DVP-FEN01

Analog I/O

DVP-F2AD
DVP-F2DA

Accessories

Data Backup Card

DVP-512FM (EH3 only)

DVPPCC01
(for general purpose)

Data Transmission Cable

DVPACAB2A30

Model Name	Specifications
DVP16EH00R3	2 counters of 200 kHz input
DVP16EH00T3	2 counters of 200 kHz input, 2 axes of 200 kHz output
DVP20EH00R3	2 counters of 200 kHz input, 1 counter of 20 kHz input
DVP20EH00T3	2 counters of 200 kHz input, 2 axes of 200 kHz output
DVP32EH00R3	4 counters of 200 kHz input
DVP32EH00T3*2	4 counters of 200 kHz input, 4 axes of 200 kHz output
DVP32EH00M3	4 counters of 200 kHz input (Differential: 2 sets), 2 axes of 200 kHz output (Differential: 2 axes)
DVP32EH00MT New	4 counters of 200 kHz input (Differential: 2 sets), 4 axes of 200 kHz output (Differential: 2 axes)
DVP32EH00R3-L*1	4 counters of 200 kHz input
DVP32EH00T3-L*1*2	4 counters of 200 kHz input, 4 axes of 200 kHz output
DVP40EH00R3	4 counters of 200 kHz input
DVP40EH00T3	4 counters of 200 kHz input, 4 axes of 200 kHz output
DVP48EH00R3	4 counters of 200 kHz input
DVP48EH00T3	4 counters of 200 kHz input, 4 axes of 200 kHz output
DVP64EH00R3	4 counters of 200 kHz input
DVP64EH00T3	4 counters of 200 kHz input, 4 axes of 200 kHz output
DVP80EH00R3	4 counters of 200 kHz input
DVP80EH00T3	4 counters of 200 kHz input, 4 axes of 200 kHz output

AC : AC power supply : Inputs : Outputs R : Relay output T : Transistor output M : Differential output

*1 Supports left-side high-speed extension.

*2 DVP32EH Series PLCs produced after 2014 support 4 axes of 200 kHz output

Digital I/O Modules

- **Input Point Extension**
  - DVP08HM11N
  - DVP16HM11N
  - DVP32HM11N

- **Output Point Extension**
  - DVP08HN11R/T
  - DVP32HN00R/T

- **Input/Output Point Extension**
  - DVP08HP11R/T
  - DVP16HP11R/T
  - DVP32HP00R/T
  - DVP48HP00R/T

Analog I/O Modules

Analog Function Extension

- **Analog Input**
  - DVP04AD-H2
    V : 14-bit
    I : 13-bit
  - DVP04AD-H3
    V : 16-bit
    I : 16-bit

- **Analog Output**
  - DVP04DA-H2
    V : 12-bit
    I : 12-bit
  - DVP04DA-H3
    V : 16-bit
    I : 16-bit

- **Analog Input/Output**
  - DVP06XA-H2
    Input 4CH/Output 2CH
    V : 12-bit/V : 12-bit
    I : 11-bit/I : 12-bit
  - DVP06XA-H3
    V : 16-bit
    I : 16-bit

Temperature Measurement

- **Sensor: Pt100**
  - DVP04PT-H2

- **Sensor:**
  - DVP04TC-H2
    J, K, R, S, E, N, T thermocouple
    0 ~ 150mV
  - DVP08TC-H2
    J, K, R, S, E, N, T thermocouple
    ±150mV

- **DVP32EH00R3-L & DVP32EH00T3-L are also compatible with left-side high-speed extension modules for**
  - DVP-SV2 series.

Motion Control

- **Single-Axis Positioning**
  - DVP01PU-H2

- **High-Speed Counter**
  - DVP01HC-H2

ES2 Series PLC and Extension Modules

The Most Profitable Solution for Sequential Control

DVP-ES2/EX2

- 100 kHz pulse output
- Analog input/output

reddot design award
winner 2010

DVP-ES2

Model Name	Specifications
DVP16ES200R	AC, 8, 8, R
DVP16ES200T	AC, 8, 8, T
DVP24ES200R	AC, 16, 8, R
DVP24ES200T	AC, 16, 8, T
DVP32ES200R	AC, 16, 16, R
DVP32ES200T	AC, 16, 16, T
DVP32ES211T	DC, 16, 16, T
DVP32ES200RC	AC, 16, 16, R
DVP32ES200TC	AC, 16, 16, T
DVP40ES200R	AC, 24, 16, R
DVP40ES200T	AC, 24, 16, T
DVP60ES200R	AC, 36, 24, R
DVP60ES200T	AC, 36, 24, T

AC power supply : Inputs : Transistor output
DC power supply : Outputs : Relay output

DVP-EX2

Model Name	Specifications
DVP20EX200R	AC, 8, 6, R, 4AI/2AO
DVP20EX200T	AC, 8, 6, T, 4AI/2AO
DVP30EX200R	AC, 16, 10, R, 3AI/1AO
DVP30EX200T	AC, 16, 10, T, 3AI/1AO

AC power supply : Inputs : Transistor output
DC power supply : Outputs : Relay output

Digital I/O Modules

- **Input Point Extension**
  DVP08XM211N
  DVP16XM211N
- **Output Point Extension**
  DVP08XN211R/T
  DVP16XN211R/T
  DVP24XN200R/T
- **Input/Output Point Extension**
  DVP08XP211R/T
  DVP16XP211R/T
  DVP24XP200R/T
  DVP32XP200R/T



Analog I/O Modules

- **Input Point Extension**
  DVP04AD-E2
- **Output Point Extension**
  DVP04DA-E2
  DVP02DA-E2
- **Input/Output Point Extension**
  DVP06XA-E2



Temperature Measurement Modules

DVP04PT-E2
DVP04TC-E2


Resolver Modules

DVP10RC-E2*1

ES2 Series Extension Cable Modules

DVPAEXT01-E2


*1. Contact your sales representative for the official launch date of the DVP10RC-E2 module.

S Series PLC

Compact, Flexible Extension

DVP-SS2

2nd Generation Standard Slim PLC

Model Name	Specifications
DVP14SS211R	DC 8 6 R
DVP14SS211T	DC 8 6 T
DVP12SS211S	DC 8 4 S

DC : DC power supply : Inputs : Outputs
T : Transistor output (NPN) R : Relay output
S : Transistor output (PNP)

DVP-SX2

2nd Generation Analog I/O Slim PLC

Model Name	Specifications
DVP20SX211R	DC 8 6 R 4AI/2AO
DVP20SX211T	DC 8 6 T 4AI/2AO
DVP20SX211S	DC 8 6 S 4AI/2AO

DC : DC power supply : Inputs : Outputs
T : Transistor output (NPN) R : Relay output
S : Transistor output (PNP)

DVP-SA2

2nd Generation Advanced Slim PLC

Model Name	Specifications
DVP12SA211R	DC 8 4 R
DVP12SA211T	DC 8 4 T

DC : DC power supply : Inputs : Outputs
T : Transistor output R : Relay output

DVP-SV2

High Performance Slim PLC

Model Name	Specifications
DVP28SV11R2	DC 16 12 R
DVP28SV11T2	DC 16 12 T
DVP28SV11S2	DC 16 12 S
DVP24SV11T2	DC 10 12 T 2AI

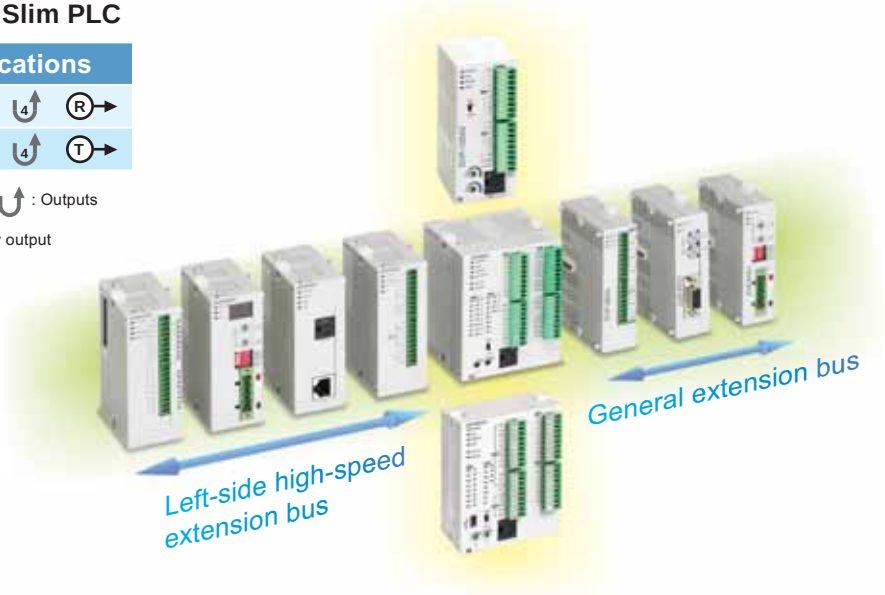
DC : DC power supply : Inputs : Outputs
T : Transistor output (NPN) R : Relay output
S : Transistor output (PNP)

DVP-SE

Network Type Advanced Slim PLC

Model Name	Specifications
DVP12SE11R	DC 8 4 R
DVP12SE11T	DC 8 4 T

DC : DC power supply : Inputs : Outputs
T : Transistor output R : Relay output



Slim Series Extension Modules

Left-Side High-Speed Extension Modules[*1]

Network Modules

- **DeviceNet Master**
  DVPDNET-SL
- **CANopen Master**
  DVPCOPM-SL

- **Ethernet**
  DVPEN01-SL
- **PROFIBUS-DP Slave**
  DVPPF02-SL

- **RS-422 / RS-485 Serial Communication Module**
  DVPSCM12-SL
- **BACnet MS / TP Slave Serial Communication Module**

Analog Function Extension

- **Analog Input**
  DVP04AD-SL
- **Analog Output**
  DVP04DA-SL

Load Cell / Tension

- **Load Cell Module**
  DVP01LC-SL
  DVP02LC-SL
  DVP201LC-SL
  DVP211LC-SL
  DVP202LC-SL

General Extension Modules[*2]

I/O Point Extension

- **Input Point Extension**
  DVP08SM11N
  DVP16SM11N

- **Output Point Extension**
  DVP06SN11R
  DVP08SN11R / T
  DVP08SN11TS
  DVP16SN11T
  DVP16SN11TS

- **Input / Output Point Extension**
  DVP08SP11R / T
  DVP08SP11TS
  DVP16SP11R / T
  DVP16SP11TS

- **Pin Header Input**
  DVP32SM11N

- **Pin Header Output**
  DVP32SN11TN

- **Digital Switch**
  DVP08ST11N

Analog Function Extension

- **Analog Input**
  DVP04AD-S
  DVP06AD-S
  DVP04AD-S2

- **Analog Output**
  DVP04DA-S
  DVP02DA-S
  DVP04DA-S2

- **Analog Input / Output**
  DVP06XA-S
  DVP06XA-S2

Temperature Measurement

- **Sensor : Pt100, Pt1000**
  DVP04PT-S
  DVP06PT-S

- **Sensor : J,K,R,S,T thermocouple**
  DVP04TC-S

- **Temperature Control :**
  DVP02TUN-S
  DVP02TUR-S
  DVP02TUL-S

Communication Modules

- **PROFIBUS Slave**
  DVPPF01-S

- **DeviceNet Slave**
  DVPDT01-S

Power Supply Modules

DVPPS01
DVPPS02
DVPPS05

Axis Control Module

- **Single-Axis Positioning**
  DVP01PU-S

*1. DVP32EH00R3-L & DVP32EH00T3-L are also compatible with the left-side high-speed extension modules.

*2. Max. quantity of right-side extension module is 14, among which the quantity of –S and –S2 modules must be equal or less than 8. If the total quantity of extension modules is over the suggestion, high density extension module is another way to solve this situation

Specifications

Electrical Specifications

	AC	DC
Power Supply Voltage	100 ~ 240 V_{AC} (-15% ~ 10%), 50 / 60Hz ±5%	24 V_{DC} (-15% ~ 20%)
Fuse Capacity	2A / 250 V_{AC}	ES: 2A / 250 V_{AC}; SV: 2.5A / 30 V_{DC}
Spike Voltage Durability	1500 V_{AC} (Primary-secondary); 1500 V_{AC} (Primary-PE); 500 V_{AC} (Secondary-PE)	
Insulation Impedance	>5 MΩ (all I/O point-to-ground: 500 V_{DC})	
Noise Immunity	ESD: 8 kV Air Discharge EFT: Power Line, 2 kV Digital I/O: 1 kV Analog & Communication I/O: 1 kV RS: 26 MHz ~ 1 GHz, 10 V/m	
Earth	The diameter of grounding wire shall not be shorter than that of the power supply cable. (When many PLCs are in use at the same time, please make sure every PLC is properly grounded.)	
Storage / Operation	Storage: -25 °C ~ 70 °C(temperature); 5% ~ 95% (humidity) Operation: 0 °C ~ 55 °C(temperature); 5% ~ 95% (humidity); pollution degree 2	

Input Specifications*1

Max. Input Frequency		10 kHz	20 kHz	100 kHz	200 kHz
Input Signal Type		NPN (Sink) / PNP (Source)			
Input Signal Voltage		24 V_{DC} ±10% (5 mA)			
Response time*2	**EH3 / SV2 / PM**	OFF→ON: 20 µs ON→OFF: 50 µs	ES / EX / SX / SS2 / SX2 OFF→ON: 3.5 µs ON→OFF: 20 µs	ES2 / EX2 / SA2 / SX2 OFF ON: 2.5 µs ON→OFF: 5 µs	EH3 / SV2 / PM OFF→ON: 0.15 µs ON→OFF: 3 µs
	ES2 / EX2				
	ES / EX				
	SX				
	SS2				
	SA2 / SX2 / SE				

*1. For more detailed specifications, see "Specification" section in the instruction sheet of each model.

*2. When the input point on PLC conducts only general input functions, use D1020 or D1021 to adjust the response time. (Default: 10ms)

Output Specifications*1

		Relay-R	Transistor-T		
			General speed	High speed	
Max. Exchange (working) Frequency		1Hz*2	10 kHz	100 kHz	200 kHz
Current spec.	**EH3 / SV2 / PM**	2A / 1 Point	0.3A / point @40 °C	SA2 / SX2 / ES2 / EX2 / SE Resistive: 0.5A / point (4A / COM) Conductive: 12W (24 V_{DC}) Light bulb: 2W (24 V_{DC})	EH3 / SV2 / PM Resistive: 0.5A / point (4A / COM) Conductive: 12W (24 V_{DC}) Light bulb: 2W (24 V_{DC})
	ES2 / EX2				
	ES / EX				
	SX	1.5A / 1 Point			
	SS2 / SA2 / SX2 / SE				
Voltage Spec.		250 V_{AC} / 30 V_{DC}	30 V_{DC}		
Response Time		10ms	OFF→ON: 20 µs ON→OFF: 30 µs	OFF→ON: 2 µs ON→OFF: 3 µs	OFF→ON: 0.5 µs ON→OFF: 2.5 µs

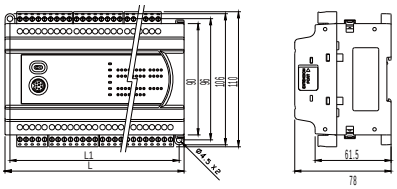
*1. For more detailed specifications, see "Specification" section in the instruction sheet of each model.

*2. Relay life: Resistive load more than 200,000 times; conductive load more than 80,000 times.

Dimensions Dimensions are in mm

ES2/EX2 Series PLC

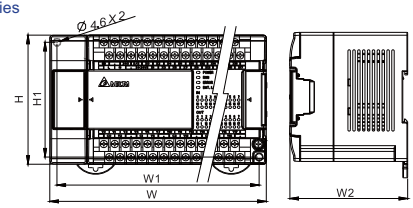
Model Name	L	L1
DVP16ES200R/T	105	97
DVP24ES200R/T	125	117
DVP32ES200R/T	145	137
DVP32ES200RC	145	137
DVP32ES200TC	145	137
DVP32ES211T	145	137
DVP40ES200R/T	165	157
DVP60ES200R/T	225	217
DVP20EX200R/T	145	137
DVP30EX200R/T	165	157



EH3 Series PLC

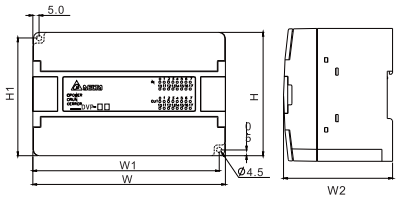
Model Name	H	H1	W	W1	W2
DVP16EH00R3/T3	90	80	113	103	82
DVP20EH00R3/T3	90	80	113	103	82
DVP32EH00M3/MT New	90	80	143.5	133.5	82
DVP32EH00R3/T3	90	80	143.5	133.5	82
DVP32EH00R3-L	90	80	143.5	133.5	82
DVP32EH00T3-L	90	80	143.5	133.5	82
DVP40EH00R3/T3	90	80	158.8	153.8	82
DVP48EH00R3/T3	90	80	174	164	82
DVP64EH00R3/T3	90	80	212	202	82
DVP80EH00R3/T3	90	80	276	266	82

* The dimension of DVP-EH3 series is the same as DVP-EH2 series



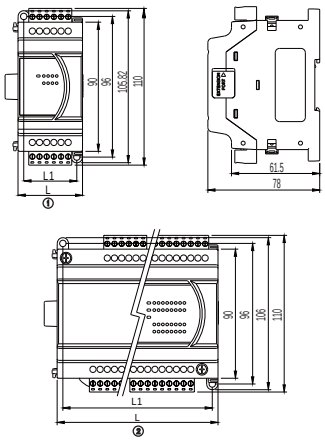
ES/EX Series PLC

Model Name	H	H1	W	W1	W2
DVP14ES00R2/T2	100	95	104	99	82
DVP24ES00R2/T2	100	95	155	150	82
DVP30ES00R2/T2	100	95	155	150	82
DVP32ES00R2/T2	100	95	155	150	82
DVP40ES00R2/T2	100	95	155	150	82
DVP60ES00R2/T2	90	85.5	185	180.5	89.6
DVP20EX00R2/T2	100	95	155	150	82



ES2/EX2 Series Extension Modules

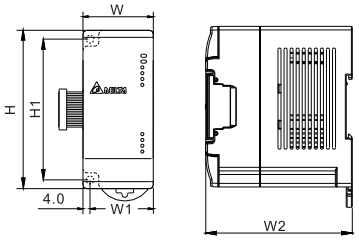
Model Name	L	L1	Type
DVP08XM211N	45	37	(1)
DVP08XP211R/T	45	37	(1)
DVP08XN211R/T	45	37	(1)
DVP16XM211N	70	62	(2)
DVP16XP211R/T	70	62	(2)
DVP16XN211R/T	70	62	(2)
DVP24XP200R/T	145	137	(2)
DVP24XN200R/T	145	137	(2)
DVP32XP200R/T	145	137	(2)
DVP04AD-E2	70	62	(2)
DVP02DA-E2	70	62	(2)
DVP04DA-E2	70	62	(2)
DVP06XA-E2	70	62	(2)
DVP04PT-E2	70	62	(2)
DVP04TC-E2	70	62	(2)
DVP10RC-E2	70	62	(2)



EH3 Series I/O & Extension Modules

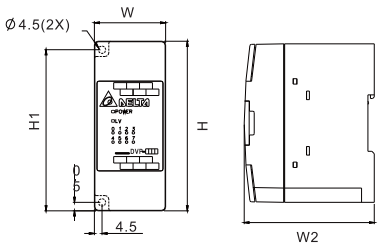
Model Name	H	H1	W	W1	W2
DVP08HM11N	90	80	40	36	82
DVP16HM11N	90	80	55	51	82
DVP32HM11N	90	80	143.5	133.5	82 .2
DVP08HN11R/T	90	80	40	36	82
DVP32HN00R/T	90	80	143.5	133.5	82 .2
DVP08HP11R/T	90	80	40	36	82
DVP16HP11R/T	90	80	55	51	82
DVP32HP00R/T	90	80	143.5	133.5	82 .2
DVP48HP00R/T	90	80	174	164	82 .2
Model Name	**H**	**H1**	**W**	**W1**	**W2**
DVP04AD-H2	90	80	60	56	82
DVP04DA-H2	90	80	60	56	82
DVP06XA-H2	90	80	60	56	82
DVP04PT-H2	90	80	60	56	82
DVP04TC-H2	90	80	60	56	82
DVP01PU-H2	90	80	60	56	82
DVPDT02-H2	90	80	40	46	82
DVPCP02-H2	90	80	40	46	82
DVPPF02-H2	90	80	40	46	82
DVP04AD-H3	90	80	60	56	82
DVP04DA-H3	90	80	60	56	82
DVP06XA-H3	90	80	60	56	82

* The dimension of DVP-EH3 series is the same as DVP-EH2 series



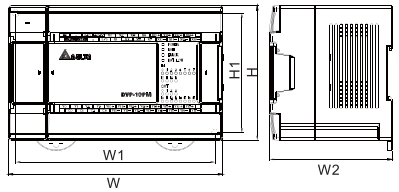
ES/EX Series I/O & Extension Modules

Model Name	H	H1	W	W1	W2
DVP08XM11N	100	95	42	37.5	82
DVP16XM11N	100	95	104	99	82
DVP08XN11R/T	100	95	42	37.5	82
DVP16XN11R/T	100	95	155	150	82
DVP24XN11R/T	100	95	155	150	82
DVP24XN00R/T	100	95	155	150	82
DVP08XP11R/T	100	95	42	37.5	82
DVP24XP11R/T	100	95	155	150	82



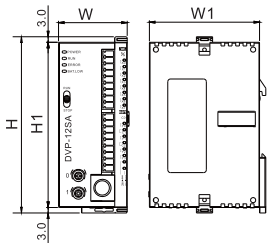
PM Series PLC

Model Name	H	H1	W	W1	W2
DVP20PM00D	90	80	174	164	82
DVP20PM00M	90	80	174	164	82
DVP10PM00M	90	80	143. 5	133. 5	82



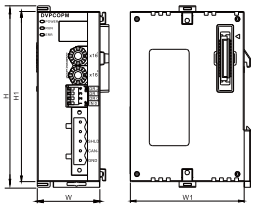
SE/SX/SS2/SA2 Series PLC

Model Name	H	H1	W	W1
DVP14SS211R/T	96	90	25.2	60
DVP12SS211S	96	90	25.2	60
DVP12SA211R/T	96	90	37.4	60
DVP12SE11R/T	96	90	37.4	60
DVP10SX11R/T	96	90	37.4	60



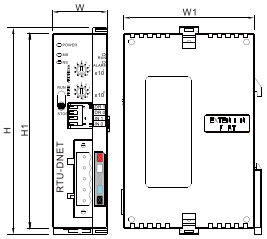
Left-Side High-Speed Extension Modules

Model Name	H	H1	W	W1
DVPEN01-SL	96	90	33.1	60
DVPCOPM-SL	96	90	33.1	60
DVPDNET-SL	96	90	33.1	60
DVPPF02-SL	96	90	33.1	60
DVPSCM12-SL	96	90	33.1	60
DVPSCM52-SL	96	90	33.1	60
DVP04AD-SL	96	90	33.1	60
DVP04DA-SL	96	90	33.1	60
DVP01LC-SL	96	90	33.1	60
DVP02LC-SL	96	90	33.1	60
DVP201LC-SL	96	90	33.1	60
DVP202LC-SL	96	90	33.1	60
DVP211LC-SL	96	90	33.1	60



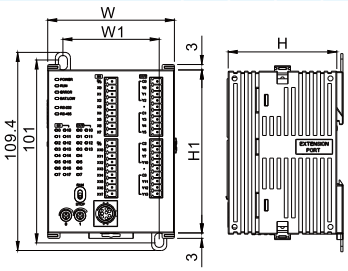
Remote I/O Modules

Model Name	H	H1	W	W1
RTU-DNET	96	90	25.2	60
RTU-485	96	90	25.2	60
RTU-EN01	96	90	25.2	60
RTU-PD01	96	90	25.2	60

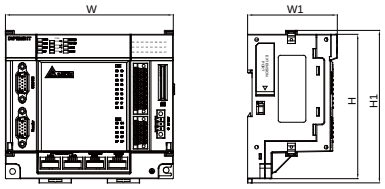


SV2/SX2/MC Series PLC

Model Name	H	H1	W	W1
DVP28SV11R2/T2	60	90	70	53.2
DVP20SX211R/T/S	60	90	70	53.2
DVP10MC11T	60	90	70	53.2

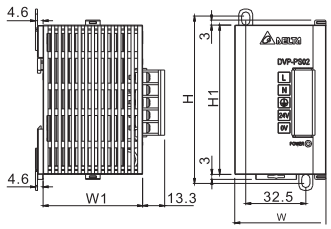


Model Name	H	H1	W	W1
New DVP15MC11T	110	116.2	128	68.4



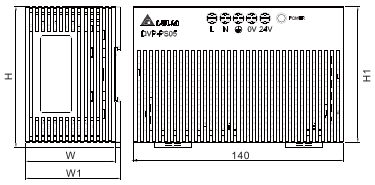
PS01/02 Power Supply Modules

Model Name	H	H1	W	W1
DVPPS01	100	90	36.5	60
DVPPS02	100	90	55	60

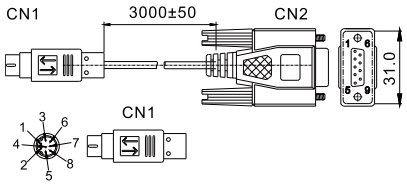


PS05 Power Supply Modules

Model Name	H	H1	W	W1
DVPPS05	93.3	90	60	63.4



PIN Definition of DVPACAB2A30



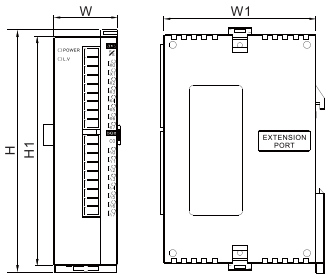
PC/HMI COM Port —— PLC COM1 Port
9 PIN D-SUB female — 8 PIN MINI DIN

Tx	3	4	Rx	
Rx	2	5	Tx	
GND	5	8	GND	
		1,2	5V	

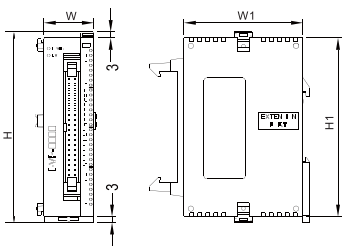
Unit: mm

S Series I/O & Extension Modules

Model Name	H	H1	W	W1
DVP08SM11N	96	90	25.2	60
DVP06SN11R	96	90	25.2	60
DVP08SN11R/T/TS	96	90	25.2	60
DVP08SP11R/T/TS	96	90	25.2	60
DVP16SP11R/T/TS	96	90	25.2	60
DVP16SN11T	96	90	25.2	60
DVP16SN11TS	96	90	25.2	60
DVP04AD-S	96	90	25.2	60
DVP04AD-S2	96	90	25.2	60
DVP06AD-S	96	90	25.2	60
DVP02DA-S	96	90	25.2	60
DVP04DA-S	96	90	25.2	60
DVP04DA-S2	96	90	25.2	60
DVP06XA-S	96	90	25.2	60
DVP06XA-S2	96	90	25.2	60
DVP04PT-S	96	90	25.2	60
DVP06PT-S	96	90	25.2	60
DVP04TC-S	96	90	25.2	60
DVP01PU-S	96	90	25.2	60
DVPPF01-S	96	90	25.2	60
DVPDT01-S	96	90	25.2	60



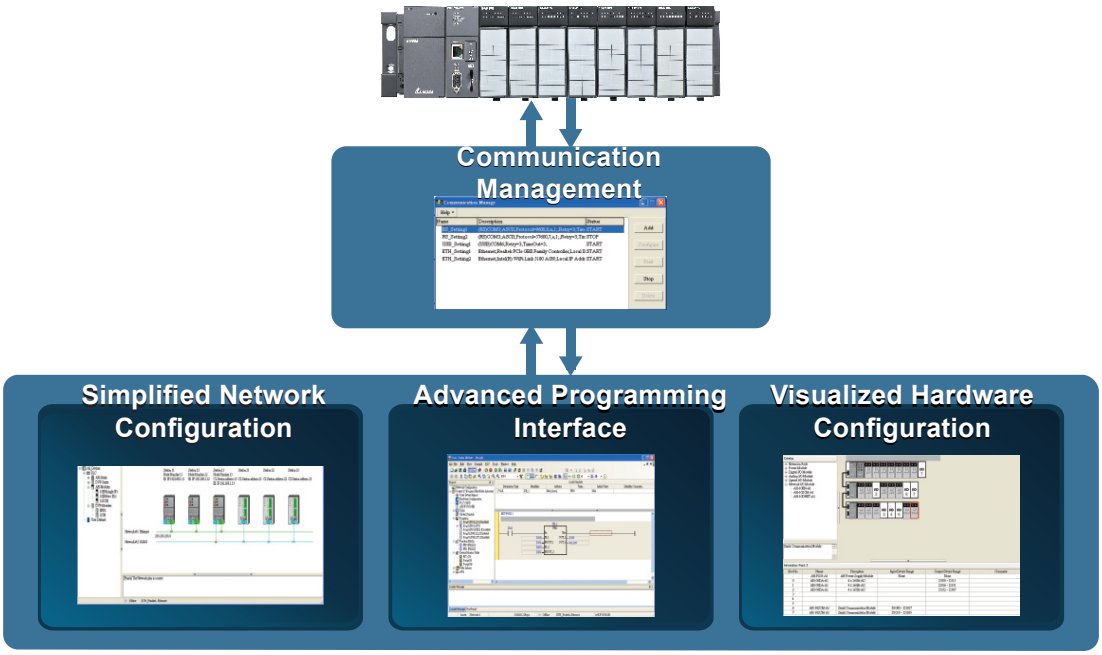
Model Name	H	H1	W	W1
DVP32SN11TN	96	90	25.2	60
DVP32SM11N	96	90	25.2	60



ISPSoft V2.0
Highly Accessible Programming Software

Fully Integrated Interface

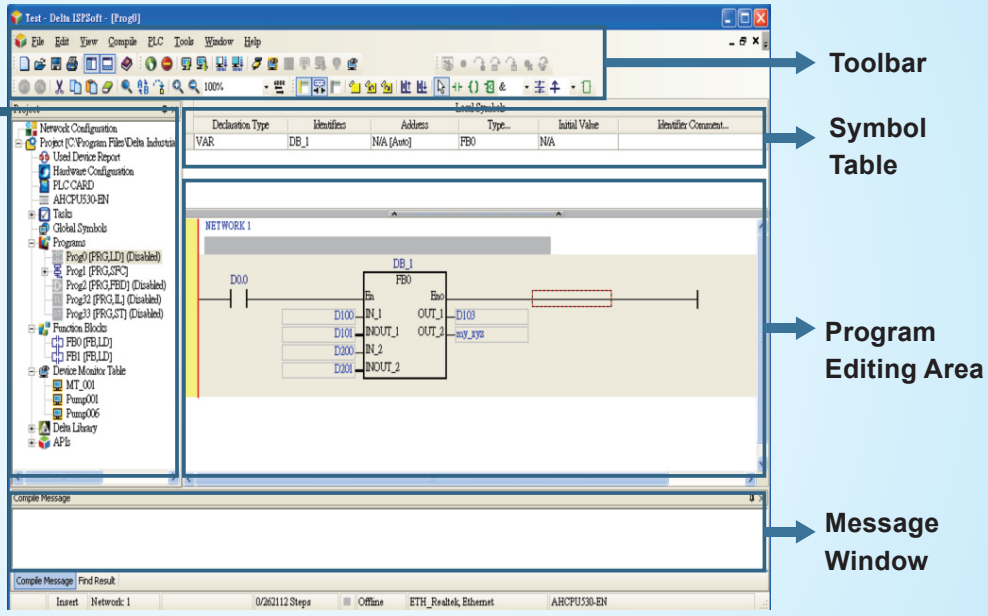
Advanced Programming Interface + Visualized Hardware Configuration + Simplified Network Configuration



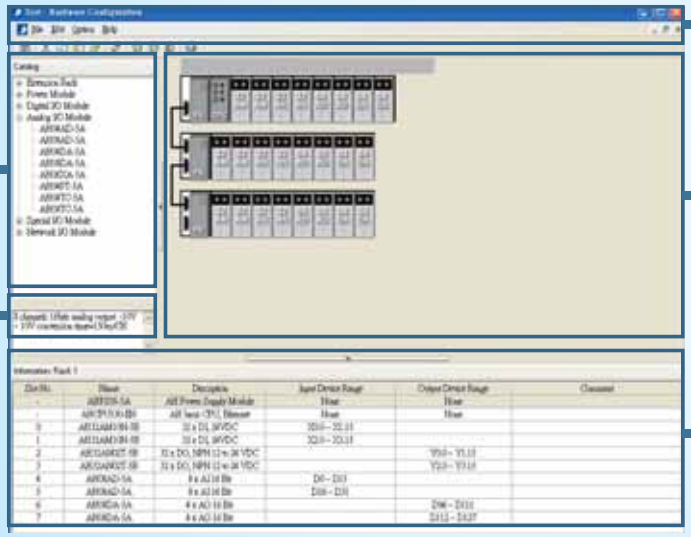
Advanced Programming Interface

Project Management Window

- **New functions:** Network configuration, hardware configuration and PLC card
- Supports 5 programming languages (LD / FBD / SFC / IL / ST)
- **Function Blocks:** Symbols can be introduced in call-by-value or call-by-reference types. Function blocks can be called in function block for up to 32 levels
- **Monitor Table:** It can be stored and managed separately. Multiple monitor tables can be stored in a single project
- **User Library:** Users can design frequently used instructions for specific applications in different industries
- **Task:** Supports cyclic, I/O interrupt, timer interrupt, external interrupt, etc. Software will provide the usable tasks for different CPU
- Built-in Delta Function Blocks provide convenient programming environment for operators.



Visualized Hardware Configuration



Module Selection

Module Description

Toolbar

- System hardware configuration can be monitored in On-Line mode
- Hardware configuration can be displayed by Scan function

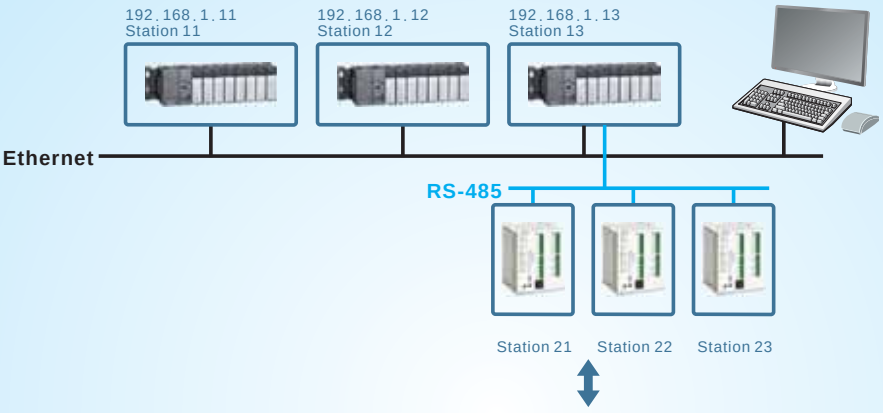
Hardware Configuration Area

- Operations of Cut / Copy / Paste / Delete are available for modules and racks
- Parameters of each module can be directly configured

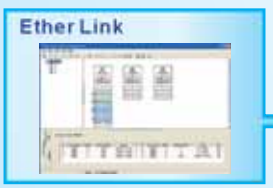
Rack Information

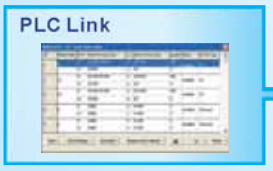
- I/O device range can be specified by the user

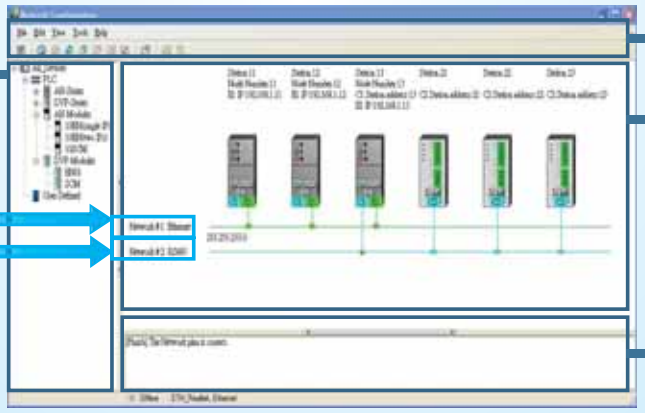
Simplified Network Configuration



Network Device Selection







Toolbar

Network Configuration Area

- Master device settings
- Ether Link editing function
- PLC Link editing function

Network Information

TP Series Human Machine Interface

7-Inch Touch Panel HMI with Built-in PLC

TP70P-RM0

- Adopts core of SS2 series PLC with program of 2k steps and D devices of 5k words
- 7" TFT-LCD
- Touch screen
- Built-in USB port for program upload/download
- Built-in 2 sets of communication port
- Supports MODBUS ASCII/RTU modes
- Built-in real-time clock (RTC)

Dimensions	7" (154×85mm)
Resolution	800×480
Display Color	65535 colors
Flash Memory	64M bytes
SRAM	64K bytes
Function Keys	Not available
Password	Available
Recipe Function	Not available
Real-time Clock	Available
Serial COM Port	2 Sets of Communication Port
Editing Software	TPEditor

4-Line Text Panel HMI

TP04G-AL-C
TP04G-AL2

- 4.1" STN-LCD
- User-defined function keys available
- Supports RS-232/RS-422/RS-485 COM ports (TP04G-AL2)
- Password protection function available
- User-defined boot screen available
- Built-in real-time clock (RTC)

Dimensions	4.1" (101.8×35.24mm)
Resolution	192×64
Display Color	Monochrome
Flash Memory	256K bytes
SRAM	16K/10K bytes
Function Keys	10 function keys
Password	Available
Recipe Function	Not available
Real-time Clock	Available
Serial COM Port	RS-232 & RS-422/485
Editing Software	TPEditor

4-Line Text Panel HMI

TP04G-BL-C

- 4.1" STN-LCD
- 0~9 numeric keys and user-defined function available
- Built-in RS-232 and RS-422/RS-485 ports
- Supports MODBUS ASCII/RTU modes
- Password protection function available
- User-defined boot screen available
- Built-in real-time clock (RTC)

Dimensions	4.1" (101.8×35.24mm)
Resolution	192×64
Display Color	Monochrome
Flash Memory	256K bytes
SRAM	10K bytes
Function Keys	17 function keys
Password	Available
Recipe Function	Not available
Real-time Clock	Available
Serial COM Port	RS-232 & RS-422/485
Editing Software	TPEditor

8-Line Text Panel HMI

TP08G-BT2

- 3.8" STN-LCD
- Resolution: 240×128 dots
- Built-in 1024KB flash memory
- 24 user-defined function keys
- Built-in RS-232 and RS-422/RS-485 COM ports
- Supports recipes and macro functions

Dimensions	3.8" (83×41mm)
Resolution	240×128
Display Color	Monochrome
Flash Memory	1M bytes
SRAM	64K bytes
Function Keys	24 function keys
Password	Available
Recipe Function	Available
Real-time Clock	Available
Serial COM Port	RS-232 & RS-422/485
Editing Software	TPEditor

7-Inch Touch Panel HMI with Built-in PLC

TP70P

- Adopts core of SS2 series PLC with program of 4 k steps and D devices of 5 k words
- Provides 2 sets of 10 kHz high speed pulse input
- 7" TFT-LCD
- Touch screen
- Built-in USB port for program upload / download
- Built-in 2 sets of communication port
- Supports MODBUS ASCII / RTU modes
- Built-in real-time clock (RTC)
- Digital and Analog I/O terminals available

Dimensions	7" (154 × 85 mm)
Resolution	800 × 480
Display Color	65535 colors
Flash Memory	64M bytes
SRAM	64K bytes
Function Keys	Not available
Password	Available
Recipe Function	Not available
Real-time Clock	Available
Serial COM Port	2 sets for RS-485
Editing Software	TPEditor

4-Line Text Panel HMI with Built-in PLC

TP04P

- Adopts core of SS2 series PLC with program of 8 k steps and D devices of 5 k words
- Provides 2 sets of 10 kHz high speed pulse input
- 4.1" STN-LCD
- Provides 0 ~ 9 numeric keys with user defined function
- Built-in USB port for program upload / download
- Built-in 2 sets of RS-485 communication port
- Supports MODBUS ASCII / RTU modes
- User-defined boot screen available
- Built-in real-time clock (RTC)
- Digital and Analog I/O terminals available

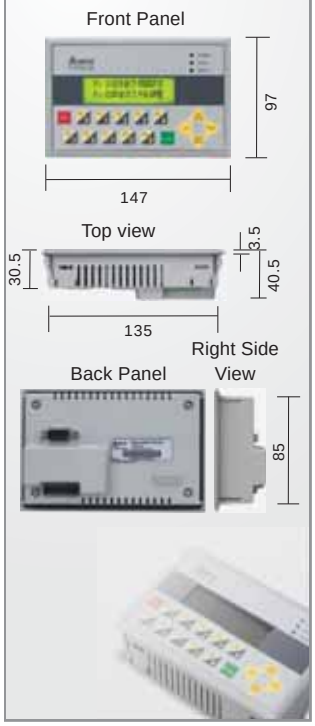
Dimensions	4.1" (101.8 × 35.24 mm)
Resolution	192 × 64
Display Color	Monochrome
Flash Memory	1M bytes
SRAM	64K bytes
Function Keys	17 function keys
Password	Available
Recipe Function	Not available
Real-time Clock	Available
Serial COM Port	2 sets for RS-485
Editing Software	TPEditor

		Text Panel HMI						Text Panel/Touch Panel HMI with Built-in PLC	
Model		TP02G-AS1	TP04G-AS2	TP08G-BT2	TP04G-AL-C	TP04G-AL2	TP04G-BL-C	TP04P-Series	TP70P-Series
									
Display Specifications	Screen Type	STN-LCD							TFT-LCD
	Display Color	Monochrome							65535
	Resolution	160 x 32	128 x 64	240 x 128	192 x 64				800 x 480
	Backlight	Life span of backlight is about 50,000 hours at 25°C							20,000 hours
	Display Range	72 x 22 mm	3" (67 x 32 mm)	3.8" (83 x 41 mm)	4.1" (101.8 x 35.24 mm)				7" (154 x 85 mm)
Flash Memory		256K bytes		1M bytes	256K bytes			1M bytes	64M bytes
Program Download Port		COM1 (RS-232)						COM1(USB)	USB
Serial COM Port	COM1	RS-232	RS-232/422		RS-232	RS-232/422	RS-232	-	-
	COM2	RS-485			-	RS-422/485	RS-422/485	RS-485	《TP70P with I/O》 RS-485 《TP70P-RM0》 RS-232
	COM3	-			-	-	-	RS-485	
Extension Interface		The slot for program copy card							-
Real-time Clock		-	Built-in						
Auxiliary Keys	System Keys	6	7	12	5		7		-
	Function Keys	10	5	12	5		10		-
Operating Voltage		+24V_{DC} (-10%~+20%)							-
Backup Battery		3V lithium battery CR2032 x 1/battery life: 5 years							
Buzzer		85 dB							
Cooling Method		Natural air circulation							
Operating Temperature		0 °C ~ 50 °C							
Storage Temperature		-20 °C ~ +60 °C							
Operating Humidity		10% ~ 90% RH (0 ~ 40°C)							
Vibration		IEC 61131-2, IEC 68-2-6 (TEST Fc); 5 Hz≤f<8.4 Hz Continuous: 3.5 mm; 8.4 Hz ≦ f ≦ 150 Hz Continuous: 1.0 g							
Shock		IEC 61131-2, IEC 68-2-27 (TEST Ea); 15g peak, 11ms duration, half-sine, three shocks in each direction per axis, on 3 mutually perpendicular axes (total of 18 shocks)							
Radiated Emission		CISPR11, Class A Frequency: 30 ~ 230 MHz, Limits: 40 dB uV/m; Frequency: 230 MHz ~ 1 GHz, Limits: 47 dB uV/m							
Radiated Electromagnetic Field		EN61000-4-3, Frequency: 80 ~ 2000 MHz, Limits: 10V/m							
Electrostatic Discharge		EN61000-4-2, Air Discharge: 8 KV, Contact Discharge: 4 KV							
Fast Transient Burst		EN61000-4-4, Power Line: 1 KV, Communication I/O: 500 V							
Dimensions (Width (W) × Height (H) × Depth (D))		147 x 97 x 35.5		210 x 122 x 45	163.6 x 108.6 x 37		175.8 × 108.8 × 37	175.8 × 108.6 × 59.2	《TP70P with I/O》 205.6 x 142.6 x 49 《TP70-RM0》 205.6 x 142.6 x37
Panel Cutout		136 x 85		196 x 108	151 x 96		163 × 96	163 × 96	191x128
Weight		240 g		430 g	268 g	270 g	292 g	500 g	《TP70P with I/O》 680 g 《TP70-RM0》 620 g
Safety Approvals (Waterproof Class of Front Panel)		IP65/NEMA4 & CE, UL Type 4 indoor			IP65/NEMA4 & CE, UL				
Editing Software		TPEditor V1.87							

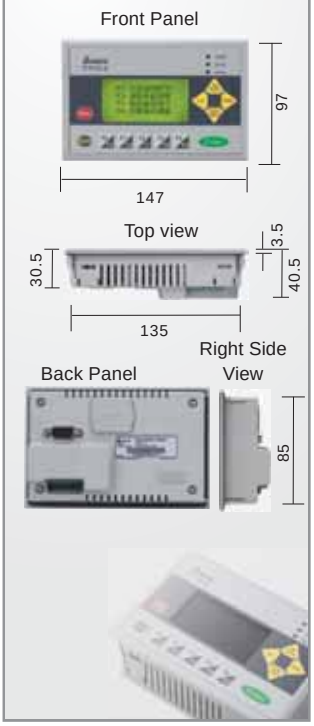
Product Outline & Dimensions

Dimensions are in mm

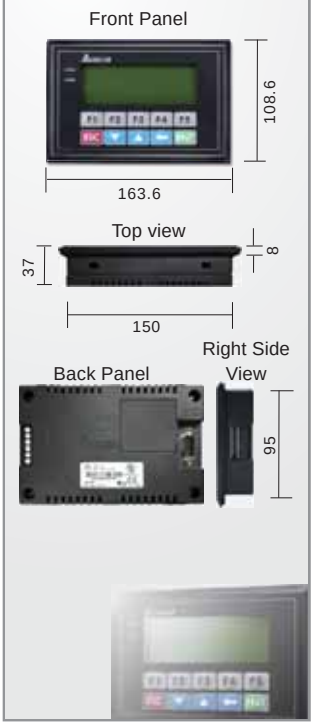
TP02G-AS1



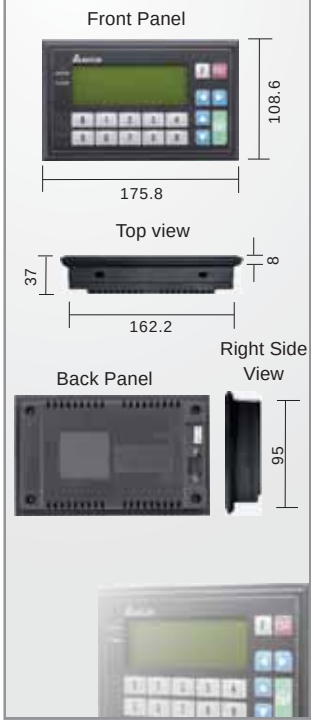
TP04G-AS2



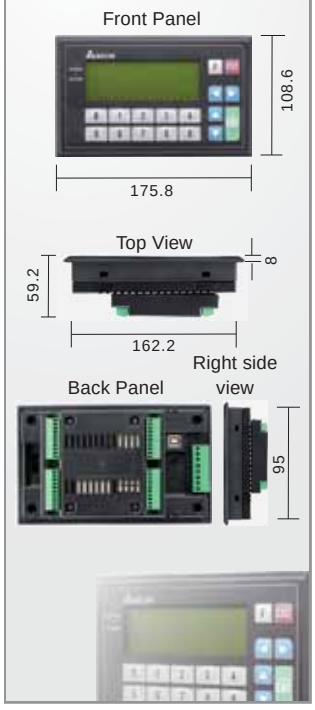
TP04G-AL-C/TP04G-AL2



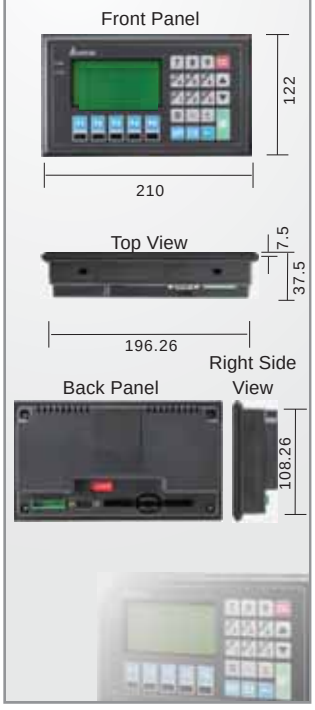
TP04G-BL-C



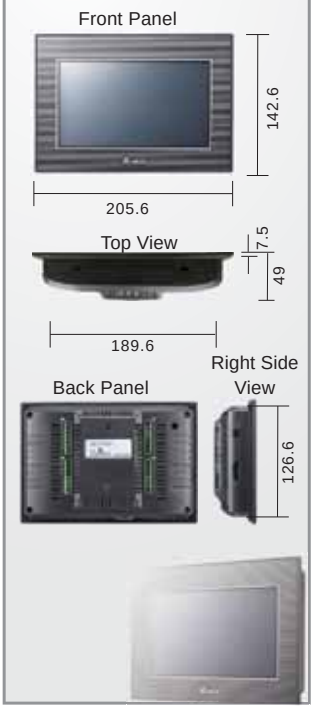
TP04P-Series



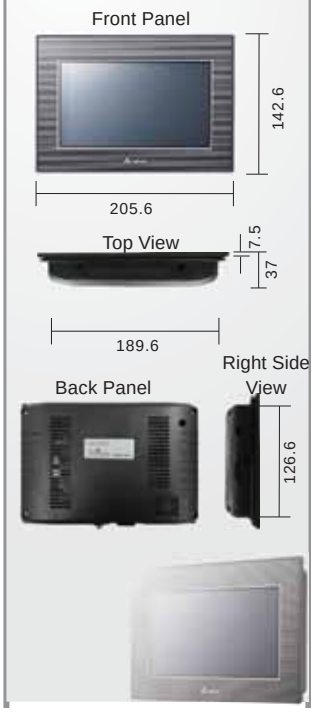
TP08G-BT2



TP70P-16/32TP1R, 21EX1R, 22XA1R

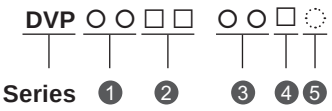


TP70P-RM0



Model Name Explanation

• PLC



1. Total I/O

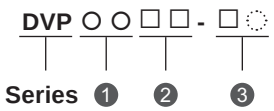
2. Model
ES/ES2 : ES/ES2 series PLC
EX/EX2 : EX/EX2 series PLC
SS/SS2 : SS/SS2 series PLC
SA/SA2 : SA/SA2 series PLC
SX/SX2 : SX/SX2 series PLC
SC : SC series PLC
SV : SV series PLC
SE : SE series PLC
PM : PM series PLC
MC : MC series PLC
EH : EH series PLC
EC : EC series PLC

3. Power supply
00 : AC power input
11 : DC power input

4. Output type
R : Relay
T : Transistor (NPN)
M : Mixed with differential signal
S : Transistor (PNP)
RC : Relay + CANopen
TC : Transistor + CANopen

5. Version

• PI/PO Module

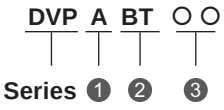


1. Total I/O

2. Model
HC : High-speed counter
PU : Single-axis positioning module

3. Model
S : SS/SA/SX/SC/SV/SS2/SA2
SX2/SV2/SE/MC series PLC
H2/H3 : EH2/EH3/PM series PLC
SL : left-side extension
for SV series PLC

• Accessory: Other

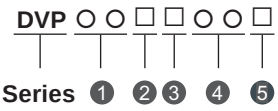


1. Accessory

2. Type
Bt : Battery

3. Type : 01, 02 .....

• DI/DO Module



1. Total I/O

2. Model
X : ES/EX/ES2/EX2 series PLC
S : SS/SA/SX/SC/SV/SS2/
SA2/ SX2/SV2/SE/MC
series PLC
H : EH2/EH3/PM series PLC

3. I/O type
M : Input point
N : Output point
P : Input + output

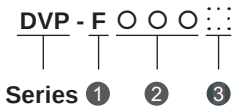
4. Power supply
00 : AC power input
11 : DC power input

5. Output type
R : Relay
T : Transistor (NPN)
TS : Transistor (PNP
N : None output

• Remote I/O

1. **Type**
DNET : DeviceNet
485 : RS-485
EN01 : MODBUS TCP

• Function Card

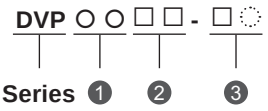


1. Function Card

2. Type
232 : RS-232 card
422 : RS-422 card
485 : RS-485 card
2AD : 2ch analog input
2DA : 2ch analog output

3. Particular definition
S : Slave mode
(applicable to COM3 coding only)

• AI/AO Module

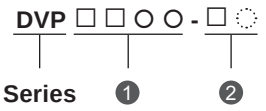


1. Total I/O

2. Model
AD : Analog/digital conversion
DA : Digital/analog conversion
PT : PT type temperature module
TC : Thermocouple type temperature
Module
XA : AD + DA module
LC : Load cell module
RC : Resolver module

3. Model
S or S2 : SS/SA/SX/SC/SV/SS2
SA2/SX2/SV2/SE/MC
series PLC
H2 or H3 : EH2/EH3/PM series PLC
SL : left-side extension for
S series PLC
E2 : ES2/ EX2 series PLC

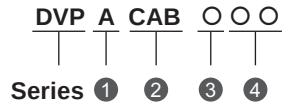
• Network Module



1. Model
EN01 : MODBUS TCP
DNET : DeviceNet master
COPM : CANopen master
CP02 : CANopen Slave
DT01/02 : DeviceNet Slave
PF01/02 : PROFIBUS DP Slave

2. Model
S : SS/SA/SX/SC/SV/SS2/SA2
SX2/SV2/SE/MC series PLC
H2/H3 : EH2/EH3/PM series PLC
SL : left-side extension for
S series PLC

• Accessory: Cable



1. Accessory

2. Type
CAB : Cable

3. Type
1, 2, 3, 4, ...

4. Length
15 : 1.5 m
30 : 3.0 m

*For the availability of the product models, please contact Delta sales representatives or refer to "Ordering Information" in this brochure.

Select a Suitable PLC

Select your desired specifications and locate the most suitable PLC.

What do you need? → **Select specifications** → **Check** → **Locate PLC**

Item	Specifications	Check	Model							
			ES2	EX2	EH3	SS2	SA2	SX2	SV2	SE
Power Supply	AC	☐	◎	◎	○					
	DC	☐				○	○	○	○	○
I/O Points	< 256	☐	△	△						
	< 512	☐			△	△	△	△	△	△
Program Capacity	< 8K	☐				○				
	<16K	☐	○	○			○	○		○
	< 32K	☐			○				○	
Output Type	Transistor (NPN)	☐	◎	◎	◎	◎	◎	◎	◎	◎
	Transistor (PNP)	☐				◎	△	◎	◎	△
	Relay	☐	◎	◎	◎	◎	◎	◎	◎	◎
	Differential signal	☐			◎					
Communication	3 COM ports (RS-232/485)	☐	○	○	△		○	△	△	△
	Ethernet	☐	◎		△		△	△	△	○
	USB	☐						○		○
	DeviceNet	☐			△ *1		△ *1	△ *1	△ *1	△ *1
	CANopen	☐	◎		△ *1		△ *1	△ *1	△ *1	△ *1
	PROFIBUS	☐			△ *1		△ *1	△ *1	△ *1	△ *1
Positioning	2-axis output	☐	○	○	○	○	○	○		○
	4-axis output	☐			◎				○	
	> 4 axes	☐			△	△	△	△	△	△
	2-axis interpolation	☐	○	○	○		○	○	○	○
	100 kHz high speed	☐	○	○			○	○		○
	200 kHz high speed	☐			○	△	△	△	○	△
High-speed Counting	≤ 2 channels	☐	○	○		○	○	○		○
	≥ 3 channels	☐			○ *3	△	△	△	○	△
	100 kHz high speed	☐	○	○			○	○		○
	200 kHz high speed	☐			○	△	△	△	○	△
Analog Function	< 4 channels (AD)	☐	△	○	△	△	△	○	△	△
	< 2 channels (DA)	☐	△	○ *2	△	△	△	○ *2	△	△

Note:

○: With such specification, ◎ : Varies upon model, △ : With such specification when connected to extension module / function card

*1 : Series that support left-side modules supports master and slave, other series support only slave

*2 : EX / SX2 series have 4 channels of analog input and 2 channels of analog output

*3 : Besides the built-in 4 channels of high-speed counters, EH3 series can be connected to high-speed counter modules

Ordering Information

ES/EX Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
ES Series Standard PLC	100~240 V_{AC}	Relay	8	6	DVP14ES00R2	
	100~240 V_{AC}	Transistor	8	6	DVP14ES00T2	
	100~240 V_{AC}	Relay	16	8	DVP24ES00R2	
	100~240 V_{AC}	Transistor	16	8	DVP24ES00T2	
	100~240 V_{AC}	Relay	18	12	DVP30ES00R2	
	100~240 V_{AC}	Relay	16	16	DVP32ES00R2	
	100~240 V_{AC}	Transistor	16	16	DVP32ES00T2	
	100~240 V_{AC}	Relay	24	16	DVP40ES00R2	
	100~240 V_{AC}	Transistor	24	16	DVP40ES00T2	
	100~240 V_{AC}	Relay	36	24	DVP60ES00R2	
	100~240 V_{AC}	Transistor	36	24	DVP60ES00T2	
EX Series Analog PLC	100~240 V_{AC}	Relay	8	6	DVP20EX00R2	
		Analog	4	2		
	100~240 V_{AC}	Transistor	8	6	DVP20EX00T2	
		Analog	4	2		

ES/EX Series Digital Module

Product Name	Output Method	Inputs	Outputs	Model Name	Certificates
Digital Module	-	8	-	DVP08XM11N	
	Relay	-	8	DVP08XN11R	
	Transistor	-	8	DVP08XN11T	
	-	16	-	DVP16XM11N	
	Relay	-	16	DVP16XN11R	
	Transistor	-	16	DVP16XN11T	
	Relay	-	24	DVP24XN11R	
	Transistor	-	24	DVP24XN11T	
	Relay	4	4	DVP08XP11R	
	Transistor	4	4	DVP08XP11T	
	Relay	16	8	DVP24XP11R	
	Transistor	16	8	DVP24XP11T	
	Relay	16	16	DVP32XP11R	
	Transistor	16	16	DVP32XP11T	

EC3 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
EC3 Series Standard PLC	100~240 V_{AC}	Relay	6	4	DVP10EC00R3	
	100~240 V_{AC}	Transistor	6	4	DVP10EC00T3	
	100~240 V_{AC}	Relay	8	6	DVP14EC00R3	
	100~240 V_{AC}	Transistor	8	6	DVP14EC00T3	
	100~240 V_{AC}	Relay	8	8	DVP16EC00R3	
	100~240 V_{AC}	Transistor	8	8	DVP16EC00T3	
	100~240 V_{AC}	Relay	12	8	DVP20EC00R3	

EC3 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
EC3 Series Standard PLC	100~240 V_{AC}	Transistor	12	8	DVP20EC00T3	CE cULus
	100~240 V_{AC}	Relay	12	12	DVP24EC00R3	
	100~240 V_{AC}	Transistor	12	12	DVP24EC00T3	
	100~240 V_{AC}	Relay	18	12	DVP30EC00R3	
	100~240 V_{AC}	Transistor	18	12	DVP30EC00T3	
	100~240 V_{AC}	Relay	16	16	DVP32EC00R3	
	100~240 V_{AC}	Transistor	16	16	DVP32EC00T3	
	100~240 V_{AC}	Relay	24	16	DVP40EC00R3	
	100~240 V_{AC}	Transistor	24	16	DVP40EC00T3	
	100~240 V_{AC}	Relay	28	20	DVP48EC00R3	
	100~240 V_{AC}	Transistor	28	20	DVP48EC00T3	
	100~240 V_{AC}	Relay	36	24	DVP60EC00R3	
	100~240 V_{AC}	Transistor	36	24	DVP60EC00T3	

Fastest execution time of basic instructions	3.8 µs	Execution time of MOV instruction	5.04 µs

ES2 / EX2 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
ES2 Series Standard PLC	100~240 V_{AC}	Relay	8	8	DVP16ES200R	CE cULus
	100~240 V_{AC}	Transistor	8	8	DVP16ES200T	
	100~240 V_{AC}	Relay	16	8	DVP24ES200R	
	100~240 V_{AC}	Transistor	16	8	DVP24ES200T	
	100~240 V_{AC}	Relay	16	16	DVP32ES200R	
	100~240 V_{AC}	Transistor	16	16	DVP32ES200T	
	240 V_{DC}	Relay	16	16	DVP32ES211T	
	100~240 V_{AC}	Transistor	24	16	DVP40ES200R	
	100~240 V_{AC}	Relay	24	16	DVP40ES200T	
	100~240 V_{AC}	Transistor	36	24	DVP60ES200R	
	100~240 V_{AC}	Relay	36	24	DVP60ES200T	
ES2 Series Built-in CANopen PLC	100~240 V_{AC}	Transistor	16	16	DVP32ES200RC	
	100~240 V_{AC}	Relay	16	16	DVP32ES200TC	
EX2 Series Analog PLC	100~240 V_{AC}	Relay	8	6	DVP20EX200R	
		Analog	4	2		
	100~240 V_{AC}	Transistor	8	6	DVP20EX200T	
		Analog	4	2		
EX2 Series Temperature / Analog PLC	100~240 V_{AC}	Relay	16	10	DVP30EX200R	
		Analog	3	1		
	100~240 V_{AC}	Transistor	16	10	DVP30EX200T	
		Analog	3	1		

Fastest execution time of basic instructions	0.35 µs	Execution time of MOV instruction	3.4 µs

ES2 / EX2 Series Digital I/O Module (AC power supply)

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
ES2 / EX2 Digital Module	100~240 V_{AC}	Relay	-	24	DVP24XN200R	CE cULus
	100~240 V_{AC}	Transistor	-	24	DVP24XN200T	
	100~240 V_{AC}	Relay	16	8	DVP24XP200R	
	100~240 V_{AC}	Transistor	16	8	DVP24XP200T	
	100~240 V_{AC}	Relay	16	16	DVP32XP200R	
	100~240 V_{AC}	Transistor	16	16	DVP32XP200T	

Ordering Information

ES2/EX2 Series Digital/Analog Module ($24V_{DC}$)

Product Name	Output Method	Inputs	Outputs	Model Name	Certificates
ES2/EX2 Series Digital Module	-	8	-	DVP08XM211N	
	Relay	-	8	DVP08XN211R	
	Transistor	-	8	DVP08XN211T	
	Relay	4	4	DVP08XP211R	
	Transistor	4	4	DVP08XP211T	
	-	16	-	DVP16XM211N	
	Relay	-	16	DVP16XN211R	
	Transistor	-	16	DVP16XN211T	
	Relay	8	8	DVP16XP211R	
	Transistor	8	8	DVP16XP211T	
ES2/EX2 Series Analog I/O Module	• 4 points of analog voltage (10V, 5V)/current (20mA, 0~20mA, 4~20mA) input *1 • Resolution: 14-bit (-32,000~+32,000)			DVP04AD-E2	
	• 4 points of analog voltage (-10V~+10V)/current (0~20mA, 4~20mA) output *1 • Resolution: 14-bit (-32,000~+32,000)/(0~+32,000)			DVP04DA-E2	
	• 2 points of analog voltage (-10V~+10V)/current (0~20mA, 4~20mA) output *1 • Resolution: 14-bit (-32,000~+32,000)/(0~+32,000)			DVP02DA-E2	
	• 4 points of analog voltage (10V, 5V)/current (20mA, 0~20mA, 4~20mA) input *1 • Input resolution: 14-bit (-32,000~+32,000) • 2 points of analog voltage (-10V~+10V)/current (0~20mA, 4~20mA) output • Output resolution: 14-bit (-32,000~+32,000)/(0~+32,000)			DVP06XA-E2	
ES2/EX2 Series Temperature Measurement Module	• 4 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input/0~300Ω resistance input *1 • Resolution: 16-bit • With PID temperature control			DVP04PT-E2	
	• 4 points of thermocouple (J, K, R, S, T, E, N Type) sensor input/-80mV~+80mV voltage input *1 • Resolution: 20-bit • With PID temperature control			DVP04TC-E2	
Absolute Resolver Module	• Converts 1 set of resolver input signal (angle/speed) into digital signals • Resolution: 12-bit • Supports disconnection detection for distance up to 50m			DVP10RC-E2	

*1. Digital/analog photocoupler isolation. No isolation among channels.

EH3 Series PLC

Product name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
EH3 Series Standard PLC	100~240V_{AC}	Relay	8	8	DVP16EH00R3	
	100~240V_{AC}	Transistor	8	8	DVP16EH00T3	
	100~240V_{AC}	Relay	12	8	DVP20EH00R3	
	100~240V_{AC}	Transistor	12	8	DVP20EH00T3	
	100~240V_{AC}	Transistor	16	16	DVP32EH00T3	
	100~240V_{AC}	Relay	16	16	DVP32EH00R3	
	100~240V_{AC}	Differential + Relay	16	16	DVP32EH00M3	
	100~240V_{AC}	Differential + Transistor	16	16	DVP32EH00MT New	
	100~240V_{AC}	Relay	16	16	DVP32EH00R3-L	
	100~240V_{AC}	Transistor	16	16	DVP32EH00T3-L	
	100~240V_{AC}	Transistor	24	16	DVP40EH00T3	
	100~240V_{AC}	Relay	24	16	DVP40EH00R3	
	100~240V_{AC}	Relay	24	24	DVP48EH00R3	
	100~240V_{AC}	Transistor	24	24	DVP48EH00T3	
	100~240V_{AC}	Relay	32	32	DVP64EH00R3	
	100~240V_{AC}	Transistor	32	32	DVP64EH00T3	
	100~240V_{AC}	Relay	40	40	DVP80EH00R3	
	100~240V_{AC}	Transistor	40	40	DVP80EH00T3	
Execution time of basic instructions			0.24 μs			

EH3 Series Digital / Analog Module

Product Name	Output Method	Inputs	Outputs	Model Name	Certificates
Digital Module	Relay	4	4	DVP08HP11R	
	Transistor	4	4	DVP08HP11T	
	Relay	-	8	DVP08HN11R	
	Transistor	-	8	DVP08HN11T	
	-	8	-	DVP08HM11N	
	Relay	8	8	DVP16HP11R	
	Transistor	8	8	DVP16HP11T	
	-	16	-	DVP16HM11N	
	-	32	-	DVP32HM11N	
	Relay	-	32	DVP32HN00R	
	Transistor	-	32	DVP32HN00T	
	Relay	16	16	DVP32HP00R	
	Transistor	16	16	DVP32HP00T	
	Relay	24	24	DVP48HP00R	
	Transistor	24	24	DVP48HP00T	
Analog Module	• 4 points of analog voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) *1 • Input resolution: 14-bit • Built-in RS-485 interface			DVP04AD-H2	
	• 4 points of analog voltage (0 V ~ +10 V) / current (0 mA ~ +20 mA) output *1 • Resolution: 12-bit • Built-in RS-485 interface			DVP04DA-H2	
	• 4 points of analog voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) input • 2 points of analog voltage (0 V ~ +10 V) / current (0 mA ~ +20 mA) output • Resolution: 12-bit • Built-in RS-485 interface			DVP06XA-H2	
	• 4 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input *1 / 0 ~ 300Ω or 0 ~ 3000Ω resistance input • Resolution: 0.1C • Built-in RS-485 interface			DVP04PT-H2	
	• 4 points of thermocouple (J, K, R, S, T, E, N Type) sensor input *1 / 0 ~ 150mV voltage input • Resolution: 0.1C • Built-in RS-485 interface			DVP04TC-H2	
	• 8 points of thermocouple (J, K, R, S, T, E, N Type) sensor input *1 / 0 ~ 150mV or ±150mV voltage input • Resolution: 0.1C • Built-in RS-485 interface			DVP08TC-H2	
	• 4 channels of differential voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) input • Resolution: 16-bit • Built-in RS-485 interface			DVP04AD-H3	
	• 4 channels of voltage (-10 V ~ +10 V) / current (0 ~ +20 mA) output • Resolution: 16-bit • Built-in RS-485 interface			DVP04DA-H3	
	• 4 channels of differential voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) input • 2 channels of voltage (-10 V ~ +10 V) / current (0 ~ +20 mA) output • Resolution: 16-bit • Built-in RS-485 interface			DVP06XA-H3	

*1. Digital / analog photocoupler isolation. No isolation among channels.

EH3 Series Extension Module / Function Card

Product Name	Description	Model Name	Certificates
Positioning Module	Servo position control module (single axis, 200 kHz)	DVP01PU-H2	
High-Speed Counter	High-speed counter module (1CH)	DVP01HC-H2	
Communication Module	PROFIBUS DP slave communication module	DVPPF02-H2	
	CANopen slave communication module	DVPCP02-H2	
	DeviceNet slave communication module	DVPDT02-H2	
Function Card	RS-232 port conversion (EH2: COM2; EH3: COM3)	DVP-F232	
	RS-422 port conversion (EH2: COM2; EH3: COM3)	DVP-F422	
	RS-485 port extension (COM3), (DVP-EH3 only)	DVP-F485	
	• 2 points of analog voltage (0 ~ 10 V) / current (0 ~ 20 mA) input • Resolution: 12-bit	DVP-F2AD	
	• 2 points of analog voltage (0 ~ 10 V) / current (0 ~ 20 mA) output • Resolution: 12-bit	DVP-F2DA	
	Ethernet communication card (compatible with controllers built-in with 32 I/O and above)	DVP-FEN01	

Ordering Information

S Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
SV2 Series Functional PLC	24VDC	Relay	16	12	DVP28SV11R2	CE cULus
	24VDC	Transistor (NPN)	16	12	DVP28SV11T2	
	24VDC	Transistor (PNP)	16	12	DVP28SV11S2	
	24VDC	Transistor (NPN)	10 (2AI)	12	DVP24SV11T2	
Execution time of basic instructions			0.24 µs			
SS2 Series Standard PLC	24VDC	Relay	8	6	DVP14SS211R	CE cULus
	24VDC	Transistor (NPN)	8	6	DVP14SS211T	
	24VDC	Transistor(PNP)	8	4	DVP12SS211S	
SA2 Series Advanced PLC	24VDC	Relay	8	4	DVP12SA211R	
	24VDC	Transistor	8	4	DVP12SA211T	
SX2 Series Analog PLC	24VDC	Relay	8 (4AI)	6(2AO)	DVP20SX211R	
	24VDC	Transistor (NPN)	8 (4AI)	6(2AO)	DVP20SX211T	
	24VDC	Transistor (PNP)	8 (4AI)	6(2AO)	DVP20SX211S	
Fastest execution time of basic instructions		0.35 µs	Execution time of MOV instruction		3.4 µs	
SE Network PLC	24VDC	Relay	8	4	DVP12SE11R	CE cULus
	24VDC	Transistor	8	4	DVP12SE11T	
Fastest execution time of basic instructions		0.64 µs	Execution time of MOV instruction		2 µs	
SX series Analog PLC	24VDC	Relay	4 (2AI)	2 (2AO)	DVP10SX11R	CE cULus
	24VDC	Transistor	4 (2AI)	2 (2AO)	DVP10SX11T	
Fastest execution time of basic instructions		3.8 µs	Execution time of MOV instruction		5.04 µs	

S Series Digital / Analog Module

Product name	Output Method	Inputs	Outputs	Model Name	Certificates
Digital Module	Relay	-	6	DVP06SN11R	CE cULus
	Relay	-	8	DVP08SN11R	
	Transistor	-	8	DVP08SN11T	
	Transistor	-	16	DVP16SN11T	
	Relay	4	4	DVP08SP11R	
	Transistor	4	4	DVP08SP11T	
	-	8	-	DVP08SM11N	
	-	8	-	DVP08SM10N	
	Transistor (PNP)	-	8	DVP08SN11TS	
	Digital switch	8	-	DVP08ST11N	
	Relay	8	8	DVP16SP11R	
	Transistor (PNP)	4	4	DVP08SP11TS	
	Transistor (NPN)	8	8	DVP16SP11T	
	Transistor (PNP)	8	8	DVP16SP11TS	
	Transistor (PNP)	-	16	DVP16SN11TS	
	-	16	-	DVP16SM11N	
	Transistor, MIL	-	32	DVP32SN11TN	
	MIL	32	-	DVP32SM11N	

Product Name	Description		Model Name	Certificates
Analog I/O Module	▪ 4 points of analog input voltage (-10V~+10V) / current (-20mA~+20mA) ▪ Input resolution: 14-bit	▪ Built-in RS-485 interface ▪ Differential input	DVP04AD-S2	CE cULus
	▪ 4 points of analog output voltage (0V~+10V) / current (0mA~+20mA)	▪ Output resolution: 12-bit ▪ Built-in RS-485 interface	DVP04DA-S2	
	▪ Analog input+output module (6 points) ▪ 4 points of analog input voltage (-10V~+10V) / current (-20mA~+20mA) ▪ 2 points of analog output voltage (0V~+10V) / current (0mA~+20mA)	▪ Input / output resolution: 12-bit ▪ Built-in RS-485 interface ▪ Differential input	DVP06XA-S2	
	▪ 4 points of analog input voltage (-10V~+10V) / current (-20mA~+20mA) ▪ Input resolution: 14-bit	▪ Built-in RS-485 interface ▪ Single-ended input	DVP04AD-S	

S Series Analog Module

Product Name	Description		Model Name	Certificates
Analog I/O Module	▪ 4 points of analog output voltage (0 V ~ +10 V) / current (0 mA ~ +20 mA) ▪ Output resolution: 12-bit	▪ Built-in RS-485 interface	DVP04DA-S	CE cULus
	▪ 2 points of analog output voltage (0 V ~ +10 V) / current (0 mA ~ +20 mA) ▪ Output resolution: 12-bit	▪ Built-in RS-485 interface	DVP02DA-S	
	▪ 6 points of analog input voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) ▪ Input resolution: 14-bit	▪ Built-in RS-485 interface	DVP06AD-S	
	▪ Analog input+output modules (6 points) ▪ 4 points of analog input voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) ▪ 2 points of analog output voltage (0 V ~ +10 V) / current (0 mA ~ +20 mA)	▪ Input / output resolution: 12-bit ▪ Built-in RS-485 interface ▪ Single-ended input	DVP06XA-S	

S Series Extension Module / Left-Side High-Speed Module

Product Name	Description		Model Name	Certificates
Left-Side High-Speed Analog I/O Module	▪ 4 groups of analog input *1 ▪ Signal range: 1 ~ 5 V, 0 ~ 5 V, -5 ~ 5 V, 0 ~ 10 V, -10 ~ 10 V, 4 ~ 20 mA, 0 ~ 20 mA, -20 ~ 20 mA ▪ Resolution: 16-bit ▪ Single channel On / Off setup enhances entire conversion efficiency ▪ Conversion time: 250 µs / point ▪ Off-line alarm (1 ~ 5 V, 4 ~ 20 mA)		DVP04AD-SL	CE cULus
	▪ 4 groups of analog output *1 ▪ Signal range: 0 ~ 10 V, -10 ~ 10 V, 4 ~ 20 mA, 0 ~ 20 mA ▪ Resolution: 16-bit ▪ Offers single channel On / Off setup ▪ Conversion time: 250 µs / point		DVP04DA-SL	
Left-Side High-Speed Load Cell Module	▪ 1 set of load cell module*1 ▪ Resolution: 24-bit	▪ Connectable to 4-wire / 6-wire load cell sensor ▪ Measurable range: 0 ~ 80 mV / V	DVP201LC-SL	
	▪ 1 set of load cell module*1 ▪ Resolution: 24-bit ▪ Connectable to 4-wire / 6-wire load cell sensor	• Measurable range: 0 ~ 80 mV / V • Built-in I/O control: 2DI / 4DO / 1AO	DVP211LC-SL	
	▪ 2 sets of load cell module*1 ▪ Resolution: 24-bit	▪ Connectable to 4-wire / 6-wire load cell sensor ▪ Measurable range: 0 ~ 80 mV / V	DVP202LC-SL	
	▪ Supports 2 channels of load cell signal input*1 ▪ Resolution: 20-bit ▪ Connectable to 4-wire / 6-wire load cell sensor ▪ Measurable range: 0 ~ 6 mV / V		DVP02LC-SL	
	▪ Supports 1 channel of load cell signal input*1 ▪ Resolution: 20-bit ▪ Connectable to 4-wire / 6-wire load cell sensor ▪ Measurable range: 0 ~ 6 mV / V		DVP01LC-SL	
Temperature Measurement Module	▪ 6 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input ▪ Resolution: 0.1 C		DVP06PT-S	
	▪ 4 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input*1 (Version 4.06 and above supports Pt1000, Ni100, Ni1000) ▪ Resolution: 0.1 C ▪ Built-in RS-485 interface		DVP04PT-S	
	▪ 4 points of thermocouple (J, K, R, S, T type) sensor input*1 ▪ Resolution: 0.1 C ▪ Built-in RS-485 interface		DVP04TC-S	
	▪ 2 points of universal analog input: 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA; Thermocouple: J, K, R, S, T, E, N, B, C, L, U, TXK, PLII; RTD: Pt100, JPt100, Pt1000, Cu50, Cu100, Ni100, Ni1000, LG-Ni1000 ▪ Resolution: analog 16-bit; Sensor: 0.1 C ▪ 4 points of NPN transistor output: 24VDC / 300mA ▪ Output point: built-in PID program control / manual control		New DVP02TUN-S	
	▪ 2 points of universal analog input: 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA; Thermocouple: J, K, R, S, T, E, N, B, C, L, U, TXK, PLII; RTD: Pt100, JPt100, Pt1000, Cu50, Cu100, Ni100, Ni1000, LG-Ni1000 ▪ Resolution: analog 16-bit; Sensor: 0.1 C ▪ 4 points of relay output: 24VDC / 3A ▪ Output point: built-in PID program control / manual control		New DVP02TUR-S	
	▪ 2 points of universal analog input: 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA; Thermocouple: J, K, R, S, T, E, N, B, C, L, U, TXK, PLII; RTD: Pt100, JPt100, Pt1000, Cu50, Cu100, Ni100, Ni1000, LG-Ni1000 ▪ Resolution: analog 16-bit; Sensor: 0.1 C ▪ 2 points of analog output: 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA ▪ Output point: built-in PID program control / manual control		New DVP02TUL-S	

*1. Digital / analog photocoupler isolation. No isolation among channels.

Ordering Information

S Series Extension Module / Left-Side High-Speed Module

Product Name	Description	Model Name	Certificates
Positioning Module	Servo position control module (single axis, 200 kHz)	DVP01PU-S	
Communication Module	DeviceNet slave communication module	DVPDT01-S	
	PROFIBUS DP slave communication module	DVPPF01-S	
Left-Side High-Speed Communication Module	Ethernet communication module, 10 / 100 Mbps	DVPEN01-SL	
	DeviceNet master communication module, 500 Kbps	DVPDNET-SL	
	CANopen master communication module, 1 Mbps	DVPCOPM-SL	
	PROFIBUS DP slave communication module , 12 Mbps	DVPPF02-SL	
	RS-485 / RS-422, serial communication module, 460 Kbps	DVPSCM12-SL	
	BACnet MS / TP Slave communication module, 460 Kbps	DVPSCM52-SL	
Remote I/O Module	RS-485 remote I/O module, connectable to S series I/O modules	RTU-485	
	Ethernet remote I/O module, connectable to S series I/O modules	RTU-EN01	
	DeviceNet remote I/O module, connectable to S series I/O modules	RTU-DNET	
	PROFIBUS remote I/O module, connectable to S series I/O modules	RTU-PD01	

Communication Converter

Product Name	Description	Model Name	Certificates
Converter	USB to RS-485 converter	IFD6500	
	USB to CAN converter	IFD6503	
	USB to RS-485 converter	IFD6530	
	MODBUS TCP to RS-232 / 485 converter	IFD9506	
	EtherNet / IP to RS-232 / 485 converter	IFD9507	
	DeviceNet to RS-232 / 485 converter	IFD9502	
	CANopen to RS-232 / 485 converter	IFD9503	
	RS-232 to RS-422 / 485 isolated converter	IFD8500	
	RS-485 to RS-422 isolated repeater	IFD8510	
	RS-422 / 485 to RS-232 addressable isolated converter	IFD8520	

PM Series

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
General Purpose Motion Controller	100 ~ 240V_{AC}	Differential	16	16	DVP10PM00M	
		(Built-in 4-axis of independent 1MHz pulse output)				
Professional Motion Controller	100 ~ 240V_{AC}	Differential	8	8	DVP20PM00DT	
		(Built-in 2-axis of independent 500 kHz pulse output)			DVP20PM00D	
		(Built-in 3-axis of independent 500 kHz pulse output)			DVP20PM00M	

PM Series Extension Module	Description	Model Name
DVP-PM Communication card	Ethernet / CANopen communication card	DVP-FPMC

Execution time of basic instructions	0.13 µs	Execution time of MOV instruction	3.74 µs

MC Series

Product Name	Power Supply	Communication protocol	Axes controlled	Inputs	Outputs	Model Name	Certificates
Network Type Motion Controller	24V_{DC}	CANopen DS402	16	8	4	DVP10MC11T	
			24	16	8	New DVP15MC11T	

TP Series

Product Name	Description							Model Name	Certificates
TP02	Resolution: 160 x 32, Serial COM ports: RS-232 & RS-485							TP02G-AS1	
TP04	Resolution: 128 x 64, Serial COM ports: RS-232 & RS-422/RS-485							TP04G-AS2	
	Resolution: 192 x 64, Serial COM ports: RS-232 & RS-422/RS-485							TP04G-AL2	
	Resolution: 192 x 64, Serial COM ports: RS-232							TP04G-AL-C	
	Resolution: 192 x 64, Serial COM ports: RS-232 & RS-422/RS-485, 0 ~ 9 numeric keys available							TP04G-BL-C	
TP04P	Resolution: 192 x 64, Serial COM ports: USB & RS-485	8DI	8DO	-	-	-	Relay	TP04P-16TP1R	
		8DI	16DO	-	-	-	Relay	TP04P-32TP1R	
		8DI	8DO	4AI	2AO	-	Relay	TP04P-22XA1R	
		8DI	8DO	2AI	1AO	2PT	Relay	TP04P-21EX1R	
TP70P	Resolution: 800 x 400 Serial COM ports: USB & RS-485	8DI	8DO	-	-	-	Relay	TP70P-16TP1R	
		16DI	16DO	-	-	-	Relay	TP70P-32TP1R	
		8DI	8DO	4AI	2AO	-	Relay	TP70P-22XA1R	
		8DI	8DO	2AI	1AO	2PT	Relay	TP70P-21EX1R	
	Resolution: 800 x 400 Serial COM ports: USB & RS-232/485	-	-	-	-		-	TP70P-RM0	
TP08	Resolution: 240 x 128, Serial COM ports: RS-232 & RS-422/RS-485,0 ~ 9 numeric keys available							TP08G-BT2	

Software

Product Name	Description	OS (Windows based software)
ISPSoft	PLC editing software for AH500 and DVP series (supports 5 programming languages: LD, FBD, SFC, ST, IL)	Windows 2000, XP, Vista, Windows 7 (32-bit/64-bit)
WPLSoft	Programming software for DVP-PLC	Windows 98, Me, NT4.0, 2000, XP, Vista, Windows 7 (32-bit/64-bit)
TPEditor	Editing software for TP series HMI	Windows 98, Me, NT4.0, 2000, XP, Vista, Windows 7 (32-bit/64-bit)
PMSoft	Programming software for PM series	Windows 2000, XP, Vista, Windows 7 (32-bit/64-bit)
DCISoft	Delta communication integration software	Windows 2000, XP, Vista, Windows 7 (32-bit/64-bit)
DeviceNet Builder	DeviceNet configuration software	Windows 2000, XP, Vista, Windows 7 (32-bit/64-bit)
CANopen Builder	CANopen configuration software	Windows 2000, XP, Vista, Windows 7 (32-bit/64-bit)
NetView builder	CAN bus Message Analysis Software	Windows 2000, XP, Vista, Windows 7 (32-bit)

Starter kit

Product Name	Model Name	Starter Kit Contents
New Delta PLC Starter kit	UT-14SS2-A	DVP14SS211R(PLC), DOP-B07S410(HMI) and accessory
	UT-12SE-A1	DVP12SE11R (PLC), DOP-B07E411 (HMI) and accessory

Industrial Power Supply

Series	Power Supply	Inputs	Outputs	Power	Output Current	Model Name	Certificates
DVP	1-phase	85~264V_{AC}	24V_{DC}	24W	1A	DVPPS01	
				48W	2A	DVPPS02	
				120W	5A	DVPPS05	

*Note: For more ordering information, please refer to the catalogue for Delta Industrial Power Supply.

Ordering Information

Accessories

Type	Model name	Descriptions	Specification		Applicable Modules
			Length	Connector / Terminal block	
PLC programming and serial communication cable	UC-PRG015-01A	communication cable for PLC (mini USB) to PC	1.5 m	PC (USB ⟷ mini USB) PLC	DVP-SE/DVP-SX2/AH500
	UC-PRG015-02A	communication cable for TP (USB B type) to PC	1.5 m	PC (USB ⟷ USB B type) TP	TP70P/TP04P / DOP
	UC-PRG020-12A	communication cable for PLC (DB9 female / 8-pin mini-DIN male) to PC	2 m	PC (DB9 female ⟷ 8-pin mini-DIN male) PLC	DVP/TP RS-232
	UC-PRG030-01A	communication cable for PLC (mini USB) to PC	3 m	PC (USB ⟷ mini USB) PLC	DVP-SE/SX2 AH500
	UC-PRG030-02A	communication cable for TP (USB B type) to PC	3 m	PC (USB ⟷ USB B type) TP	TP70P / TP04P / DOP
	UC-PRG030-10A	communication cable for PLC / HMI / TP (DB9 female) to PC	3 m	PC (DB9 female ⟷ DB9 female) PLC/HMI/TP	PLC/HMI/TP (DB9 female)
	UC-PRG030-20A	communication cable for PLC / HMI (RJ45) to PC	3 m	PC (RJ45 ⟷ RJ45) PLC/HMI	DVP-SE DVPEN02-L AHCPU5 □□ -EN AH10EN-5A
	UC-MS010-02A	communication cable for PLC (8-pin mini-DIN male) to PC	1 m	PC (DB9 female ⟷ 8-pin mini-DIN male) PLC	DVP PLC RS-232
	UC-MS020-01A	communication cable for PLC (8-pin mini-DIN male) to PC	2 m	PC (DB9 female ⟷ 8-pin mini-DIN male) PLC	
	UC-MS020-06A	communication cable for PLC (8-pin mini-DIN male) to HMI	2 m	HMI (DB9male ⟷ 8-pin mini-DIN male) PLC	
	UC-MS030-01A	communication cable for PLC (8-pin mini-DIN male) to PC	3 m	PC (DB9 female ⟷ 8-pin mini-DIN male) PLC	
	UC-MS030-06A	communication cable for PLC (8-pin mini-DIN male) to HMI	3 m	HMI (DB9male ⟷ 8-pin mini-DIN male) PLC	
I/O external terminal module	UC-ET010-24A	I/O extension cable for connecting external terminal modules	1 m	PLC (MILIDC40 ⟷ IDC40) external terminal modules	DVP32SM11N ⟷ UB-10-ID32A DVP32SN11TN ⟷ UB-10-OT32A
	UC-ET010-24B	I/O extension cable for connecting external terminal modules	1 m	PLC (MILIDC40 ⟷ IDC40) external terminal modules (shielded wire)	DVP32SM11N ⟷ UB-10-ID32A DVP32SN11TN ⟷ UB-10-OT32A
	UC-ET010-24C	I/O extension cable for connecting external terminal modules	1 m	PLC (MILIDC40 ⟷ IDC20x2) external terminal modules	DVP32SN11TN ⟷ UB-10-OR16A
	UC-ET010-24D	I/O extension cable for connecting external terminal modules	1 m	PLC (MILIDC40 ⟷ IDC20x2) external terminal modules (shielded wire)	DVP32SN11TN ⟷ UB-10-OR16A
	UC-ET020-24B	I/O extension cable for connecting external terminal modules	2 m	PLC (MILIDC40 ⟷ IDC40) external terminal modules (shielded wire)	DVP32SM11N ⟷ UB-10-ID32A DVP32SN11TN ⟷ UB-10-OT32A
	UC-ET020-24D	I/O extension cable for connecting external terminal modules	2 m	PLC (MILIDC40 ⟷ IDC20x2) external terminal modules (shielded wire)	DVP32SN11TN ⟷ UB-10-OR16A
	UC-ET030-24B	I/O extension cable for connecting external terminal modules	3 m	PLC (MILIDC40 ⟷ IDC40) external terminal modules (shielded wire)	DVP32SM11N ⟷ UB-10-ID32A DVP32SN11TN ⟷ UB-10-OT32A
	UC-ET030-24D	I/O extension cable for connecting external terminal modules	3 m	PLC (MILIDC40 to IDC20x2) external terminal modules (shielded wire)	DVP32SN11TN ⟷ UB-10-OR16A
Motion control cable / Industrial communication cable	UC-CMC003-01A	CANopen communication cable	0.3 m	--	DVPCOPM-SL DVP10MC11T DVP15MC11T New DVPCP02-H2 TAP-CN03
	UC-CMC005-01A	CANopen communication cable	0.5 m	--	
	UC-CMC010-01A	CANopen communication cable	1 m	--	
	UC-CMC015-01A	CANopen communication cable	1.5 m	--	
	UC-CMC020-01A	CANopen communication cable	2 m	--	
	UC-CMC030-01A	CANopen communication cable	3 m	--	
	UC-CMC050-01A	CANopen communication cable	5 m	--	
	UC-CMC100-01A	CANopen communication cable	10 m	--	
	UC-CMC200-01A	CANopen communication cable	20 m	--	
	UC-EMC003-02A	EtherCATcommunication cable	0.3 m	--	AH10EMC-5A

Accessories

Type	model name	Descriptions	Specification		Applicable modules
			Length	Connector/Terminal block	
Industrial communication cable	UC-DN01Z-01A	DeviceNet/CANopen communication cable (Trunk cable - thick)	on customer's demand (up to 305 m)	--	DeviceNet/CANopen related models
	UC-DN01Z-02A	DeviceNet/CANopen communication cable (Drop cable - thin)		--	
	UC-PF01Z-01A	PROFIBUS communication cable		--	PROFIBUS related models
External terminal module	UB-10-OR16A	external terminal module for DVP32SN output module	--	16-point relay output, 20-pin MIL	DVP32SN11TN
	UB-10-OT32A	external terminal module for DVP32SN output module	--	32-point transistor output, 40-pin MIL	DVP32SN11TN
	UB-10-ID32A	external terminal module for DVP32SM digital input module	--	32-point input, MIL	DVP32SM11TN
Connector	UN-03EN-04A	RJ45 connector	--	--	--
	UN-03PF-01A	PROFIBUS connector	--	--	PROFIBUS related models
	UN-03PF-02A	PROFIBUS connector	--	--	
	UN-03PF-03A	PROFIBUS connector	--	--	
Peripheral Accessories	Data backup memory card (DVP-EH3 only)				DVP-512FM
	Data backup memory card (64k words)				DVPPCC01
	Communication cable for PC (9-pin & 25-pin D-Sub) and PLC, 3m				DVPACAB230
	Supports 4 types of RS-485 connectors				ADP485-01
	Connection cable for ADP485-01 and ASDA-A series servo				ADPCAB03A
	Connection cable for ADP485-01 and ASDA-B series servo				ADPCAB03B
	I/O extension cable for ES/EX series, 0.3m				DVPACAB403
	Extension cable for EH series PLC and extension module, 0.7m				DVPACAB4A07
	DeviceNet/CANopen distribution box, 1 for 2				TAP-CN01
	DeviceNet/CANopen distribution box, 2 for 3				TAP-CN02
	DeviceNet/CANopen distribution box, 2 for 3 RJ45				TAP-CN03
	3.6V lithium battery (unchargeable) for EH/SX series PLC				DVPABT01
	Terminal resistance for CANopen communication (RJ45)				TAP-TR01
	TP programming cable				DVPACAB530

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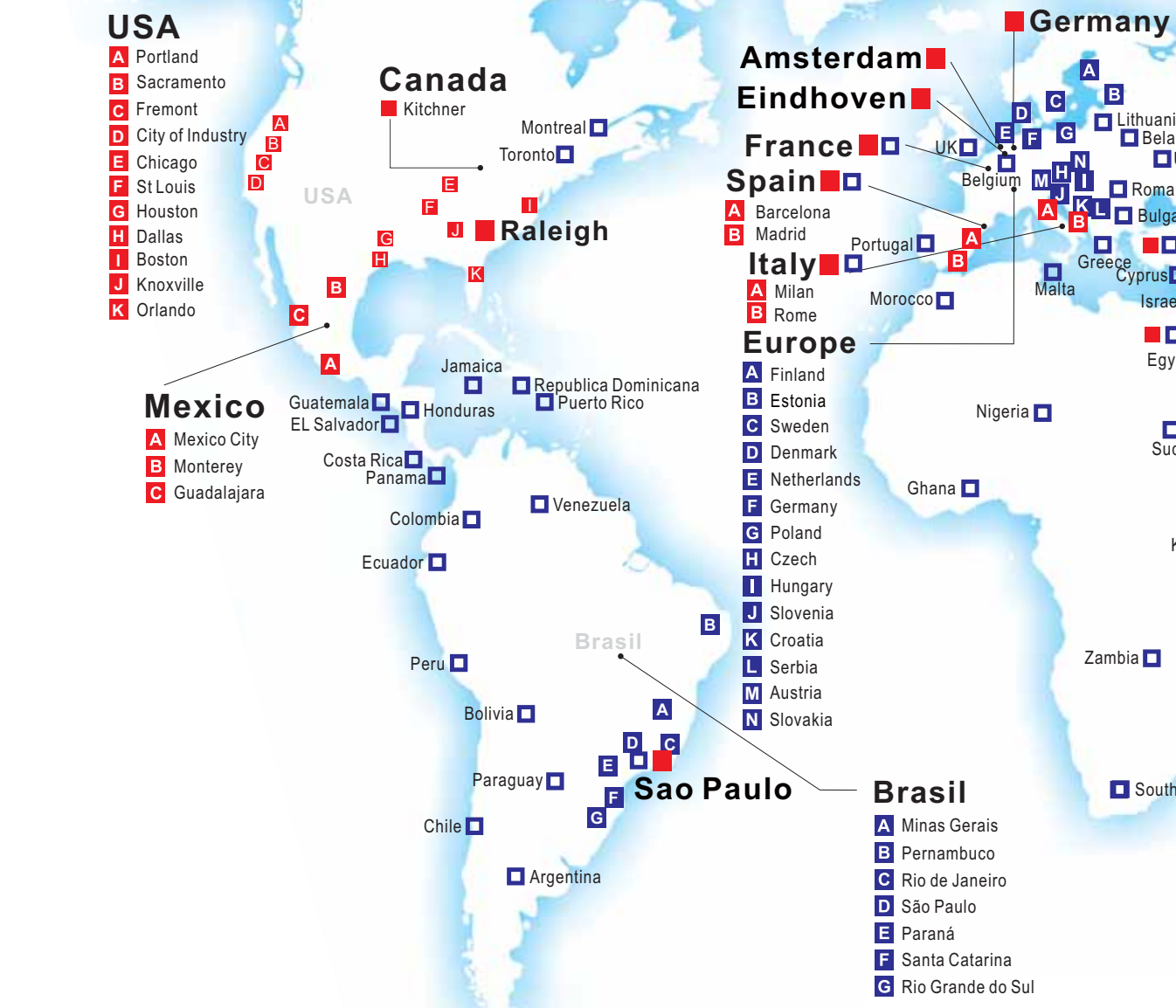

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