Digitized Automation for a Changing World

Delta Programmable Logic Controller
DVP Series

reddot design award
winner 2010

www.deltaww.com

The Perfect Small PLC Revolution!

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

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

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

Motion Control Type

15MC / 50MC

- 20 MB program capacity
- 20 MB data capacity
- 1Mbps (15MC) / 100Mbps (50MC) Communication speed
- Electronic gear / Electronic cam (2,048 points) / Rotary cut
- Motion control supports BufferMode
- Built-in multiple interfaces: Ethernet, CANopen, Incremental encoder, Absolute encoder, EtherCAT (50MC series)
- Linear / Arc / Helical interpolation
- Motion protocol CANopen or EtherCAT
- LREAL data calculation

High-Level Network Type

SA2 / SX2

- 16k program capacity
- Basic instruction speed: 0.35 µs
- 100 kHz pulse output
- Multiple industrial networks
- Built-in 3 COM ports
- Built-in analog I/O of 12-bit resolution (SX2 only)

SE

- 16k program capacity
- Built-in 3 COM ports
- 100 kHz pulse output
- Built-in Ethernet Port
- Max. 512 I/O points
- Multiple industrial networks

New SE2

- 64k program capacity
- Built-in dual Ethernet ports support switch function
- Support Delta mode: 8 servos + 8 motor drives
- LD: 0.35 µs MOV: 1.29 µs
- 3+100 kHz high speed counter input / 4+100 kHz pulse output
- Built-in multi-communication interface : Ethernet, , CAN, RS485 x2, USB

SV3 / SX3

- 25 ns
- Programming DIADes
- Built-in 4+200 kHz high speed counter input / 6-axis (SV3) / 3-axis (SX3) 200 kHz pulse output
- 64 program c
- Built-in Ethernet, RS485 x2, USB, CAN, SD card
- Max. I/O po

Standard Type

EC3

- 8k program capacity

EC5

- 16k program capacity
- Built-in 4 points 50k pulse output

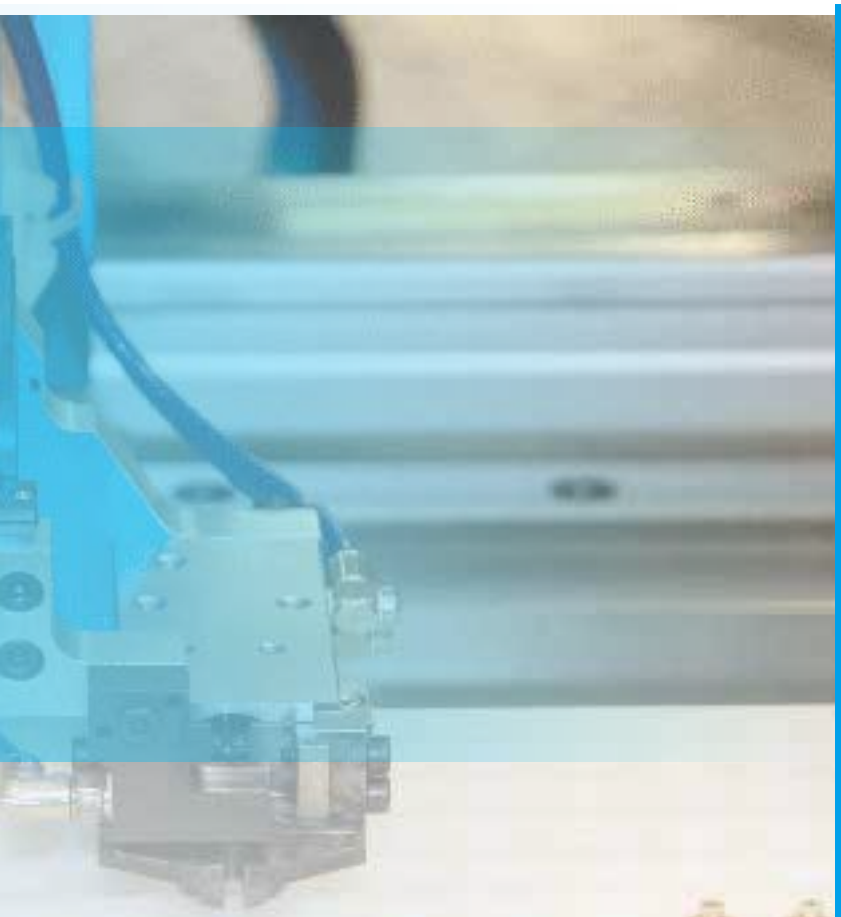
ES2 / EX2

- 16k program capacity
- Built-in 3 COM ports
- Built-in analog I/O of 12-bit resolution (EX2 only)
- Built-in Ethernet (ES2-E only)
- Built-in 2-axis 100 kHz pulse output
- 4 sets of passwords

SS2

- 8k program capacity
- Built-in 2 COM ports
- Max. 512 I/O points
- Basic instruction speed: 0.35 µs

DVP Series PLCs - Provides the best solution for peer-level controllers



g software:
signer

k
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ints

ES3
ES3-TEC
EX3

25 ns	Programming software: DIADesigner	64k program capacity
Built-in 4*200kHz high speed counter input / 4-axis 200kHz pulse output		Max. 256 I/O points
ES3: Ethernet, RS485 x2, USB, SD card ES3-TEC: Ethernet, EtherCAT, RS485 x2, USB, SD card EX3: Dual Ethernet ports (dual IP modes), RS485 x2 USB, SD card		

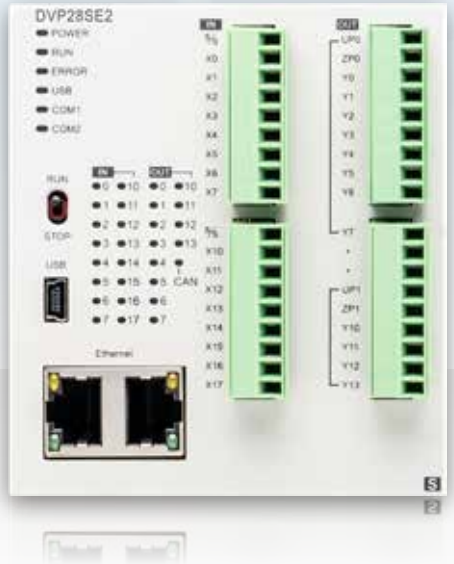
Contents

NEW

The 2nd Generation DVP-SE Series PLC

Upgraded Hardware With Dual Ethernet Ports For Easy Networking

For advanced industrial applications



The 2nd Generation Network Type Advanced Slim PLC

DVP-SE2

- Adopts 32-Bit processor core with increased frequency, doubling overall PLC execution speed
- 3 sets of built-in 100 kHz high speed counter, and 4-axis 100 kHz pulse outputt
- Supports up to 512 digital I/Os, 8 right-side, 8 left-side high-speed extension modules
- Program capacity up to 64K, with 12,000 built-in general registers and 8,000 file registers
- A standard USB 2.0 interface decreases the time it takes to download the program, monitor the program, and configure the hardware.
- 2 x RS-485 serial communication ports (COM1, COM2) with a built-in CAN port, supporting Delta's proprietary drive communication mode (controls up to 8 servo axes and 8 inverters) and CANopen DS301 protocol (up to 64 slave stations)
- Built-in dual Ethernet ports support switch function
- Built-in Ethernet interface supports DCISoft, Modbus TCP, Ethernet/IP Adapter and TCP/UDP Socket function

The 3rd Generation DVP-ES Series PLC
Enhanced Control Experience From the Core

The perfect solution for equipment upgrades

The 3rd DVP Generation Standard / EtherCAT / AIO Brick PLC
DVP-ES3 / ES3-TEC / EX3

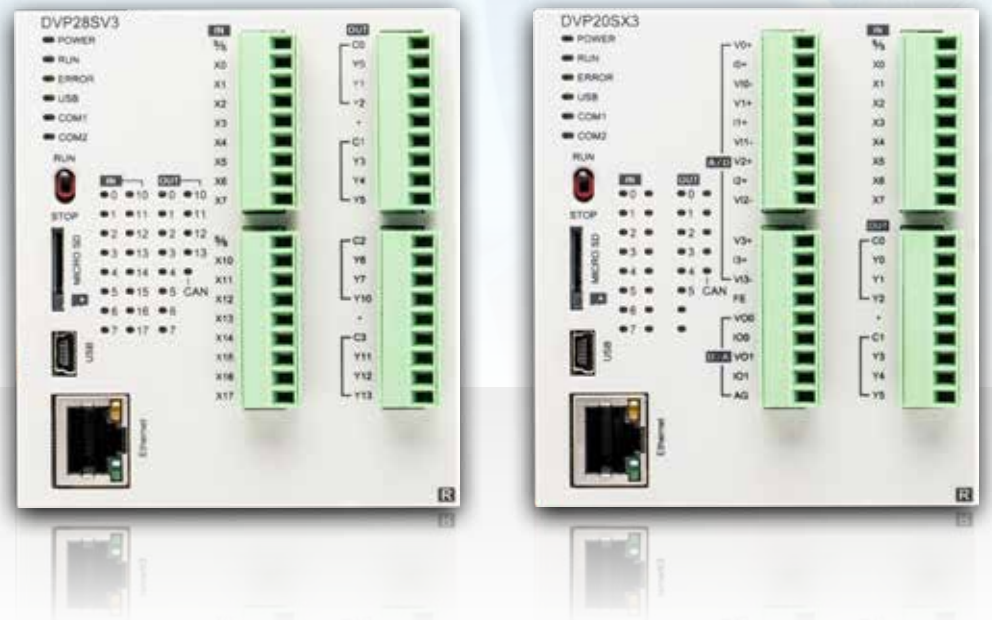
- Min. execution time of basic instruction: 25 ns (adopts 32-bit SoC processor)
- 64k program capacity
- Max. 256 points for I/O (Max. 8 x AIO extension modules)
- Built-in 2 x RS-485, AIO (EX3 models only), Micro SD card
- Supports EtherCAT* (ES3-TEC models only), EtherNet/IP Scanner/Adapter, Modbus TCP, CANopen DS301 (ES3 / EX3 models only)
- CANopen Delta mode (ES3 / EX3 models only), support Max. 8 Delta servos and motor s for right / left side expansion without setup of DS301 data exchange table
- EtherCAT Delta mode (ES3-TEC models only), support Delta servos and Delta motor drives up to 16 without setup of EtherCAT topology and configuration
  (Note: ES3-TEC firmware version V1.08.30 or later version is able to support the 3rd EtherCAT slave devices) Max. 8 slaves
- Built-in dual E thernet ports support dual IP mode

*For supported Delta servos and motor drives, please refer to DVP-ES3 / EX3 / SV3 / SX3 Series Programming Manual

NEW

Increased Built-in I/O Points to Stronger Competitiveness

Recommended for compact machines



The 3rd DVP Generation Standard / AIO Slim PLC

DVP-SV3 / SX3

- Min. execution time of basic instruction: 25 ns (adopts 32-bit SoC processor)
- 64K program capacity
- Supports the latest DIADesigner programming software
  (The previous generation ISPSoft software needs to be gradually migrated)
- 512 points (256 points input + 256 points output in total, including 16 DI and 16 DO), with up to 8 expansion modules installable on both sides
- Built-in 2 x RS-485, AIO (4AI, 2AO, 12 bits, SX3 models only), Micro SD card
- Supports EtherNet/IP Scanner/Adapter, Modbus TCP, CANopen DS301
- CANopen communication exclusive mode, supports up to 8 Delta servo and motor drives for convenient control, without the need to manually create the DS301 data exchange table

*For supported Delta servos and motor drives, please refer to DVP-ES3 / EX3 / SV3 / SX3 Series Programming Manual

Basic Brick 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
  (Hardware version V8.00 and above support this function)

Built-in High-Speed Counters

1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2 / 2	20 kHz / 10 kHz	1	20 kHz	1	4 kHz

DVP-EC5

Currently using DVP-EC3 series but demand upgrade for performance

- Built-in I/O: 32 / 48 / 60
- Program capacity: 16 k steps
- Supports 4 points high-speed pulse output 50 kHz, 2 points high-speed pulse input 50 kHz
- 8 points external interrupts

Built-in High-Speed Counters

1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2	50 kHz	2	50 kHz	1	25 kHz

The 2nd Generation Standard PLC / Analog I/O PLC

DVP-ES2 / EX2

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

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

Built-in High-Speed Counters

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

Built-in CANopen Brick PLC

DVP32ES200RC / TC

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

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

Built-in Ethernet Brick PLC

DVP-ES2-E

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

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

Built-in AIO Brick PLC

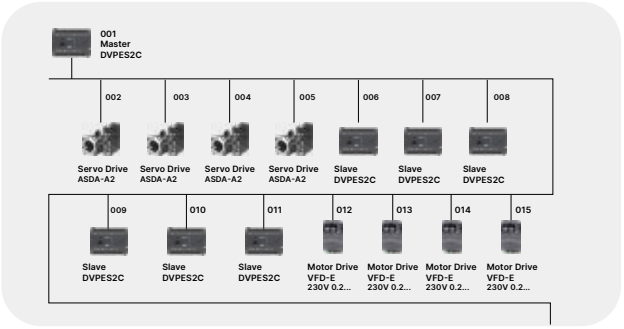
DVP30EX200R / T

Integrated controller for temperature control and analog input

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

speed

network: CANopen



Built-in Ethernet

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

Built-in Analog I/O in DVP-EX2 Model

Analog Input		Analog Output	
Channels	3	**Channels**	1
Resolution	16-bit	**Resolution**	12-bit
Spec.	-20 ~ 20 mA or -10 ~ 10 V	**Spec.**	0 ~ 20 mA or -10 ~ 10 V

Built-in Temperature Control Function

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

The 3rd DVP Generation Standard / EtherCAT / AIO Brick PLC

DVP-ES3 / ES3-TEC / EX3

The option for upgrading machines with multi-functions

- Support EtherCAT* (ES3-TEC only), EtherNet/IP Scanner/Adapter, Modbus TCP, CANopen DS301 (ES3 & EX3 only)
- CANopen Delta mode (ES3 & EX3 only), support 8 Delta servos and 8 Delta motor drives without setup of DS301 data exchange table
- EtherCAT Delta mode (ES3-TEC only), support Delta servos and Delta motor drives up to 16 without setup of EtherCAT topology and configuration (Note: ES3-TEC firmware version V1.08.30 or later version is able to support the 3rd EtherCAT slave devices)

*For supported Delta servos and motor drives, please refer to DVP-ES3 / EX3 / SV3 / SX3 Series Programming Manual

DVP Brick Type PLC	ES3	EX3	ES3-TEC
Model	DVP32ES300*T/R** DVP32ES311***T DVP48ES300T/R DVP64ES300T/R DVP80ES300T/R	DVP22EX300T DVP22EX300R DVP28EX300MT**** DVP36EX300T DVP36EX300R	DVP32ES300TEC (NPN output)
Program Capacity	64k Steps		
Software	ISPSoft, DIADesigner		
Execution Speed	25 ns, support AS APIs		
Max. I/O Points	256 points		
DIO & AIO Points	32: 16DI + 16DO 48: 24DI + 24DO 64: 32DI + 32DO 80: 40DI + 40DO	22: 12DI + 8DO + 2AI 28: 4 diff. DI + 8DI + 4 diff. DO + 8DO + 2AI + 2AO 36: 16DI + 16DO + 2AI + 2AO	32: 16DI + 16DO
Ethernet Port	1	2	1
SD Card	Micro SDHC, Max. 32G		
USB	Mini USB, B type		
RS485	2 x RS485		
CAN Port	1	1	X
EtherCAT Port	X	X	1

300: AC power | T**: NPN output | R**: Relay out | 311**: DC power | MT****: diff

The 3rd DVP Generation Standard / AIO Slim PLC

DVP-SV3 / SX3

The recommend for upgrading compact machines

- Support EtherNet/IP Scanner/Adapter, Modbus TCP, CANopen DS301
- CANopen Delta mode, support 8 Delta servos and 8 Delta motor drives without setup of DS301 data exchange table

*For supported Delta servos and motor drives, please refer to DVP-ES3 / EX3 / SV3 / SX3 Series Programming Manual

DVP Slim Type PLC	SV3	SX3
Model	DVP28SV311T* DVP28SV311R** DVP28SV311S***	DVP20SX311T DVP20SX311R DVP20SX311S
Program Capacity	64k Steps	
Software	DIADesigner	
Execution Speed	25 ns, support AS APIs	
Max. I/O Points	512 points (256 inputs + 256 outputs, including of its built-in 16 inputs and 16 outputs)	
DIO & AIO Points	28: 16DI + 12DO	20: 8DI + 6DO + 2AO + 4AI
Ethernet Port	1	1
SD Card	Micro SDHC, Max. 32G	
USB	Mini USB, B type	
RS485	2 x RS485	
CAN Port	1	1

T*: NPN output | R**: Relay out | S***: PNP output

The 2nd Generation High Performance Slim PLC

DVP-SV2

Well address performances from small to middle machines

Excellent Motion Control

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

Complete Program Protection

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

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

Outstanding Operation Performance

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

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

Built-in 4 Hardware High-Speed Counters

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

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

The 2nd Generation Standard Slim PLC

DVP-SS2

Economic and compact model

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

Motion Control Functions

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

The 2nd Generation Advanced Slim PLC

DVP-SA2

Advanced model supporting 2-axis interpolation

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

Motion Control Functions

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

Built-in High-Speed Counters

1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
4 / 4	20 kHz / 10 kHz	2	20 kHz	2 / 2	10 kHz / 5 kHz

Built-in High-Speed Counters

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

The 2nd Generation AIO Slim PLC

DVP-SX2

Analog model with highly efficient PID control function

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

Motion Control Functions

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

Network Type Advanced Slim PLC

DVP-SE

- 32-bit CPU for high-speed processing
- Program capacity: 16 k steps
- Data register: 12 k words
- Max. execution speed of basic instructions: 0.64 μs
- Built-in Ethernet
  DVP12SE V1.00: Modbus & Ethernet/IP (Explicit message)
  DVP12SE V2.00 or later visions & DVP26SE:
  Modbus & Ethernet/IP (Adapter mode, explicit message)
- Built-in mini USB port, RS-485 port*2 and Ethernet port that supports Modbus TCP and EtherNet/IP Slave (adapter)
  ※ Note: RS-485 will be reduced to 1 port in DVP26SE
- IP Filter functions as firewall for first line protection against malware and network threats
- Supports DVP-S Series modules (left-side and right-side)
  ※ Note: DVP26SE only supports right-side modules
- No battery required; RTC function operates for 15 days after power off

Motion Control Functions

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

Built-in 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

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

Network Type
Advanced Slim PLC
DVP-SE2 New

DVP Slim Type PLC	28SE2
Software	ISPSoft V3.20 or later versions
Programming Language	IL, LD, SFC
Program Capacity	64k steps
General Registers	12k words
File Registers	8k words
Execution Speed (LD)	0.35 μs
Execution Speed (MOV)	1.29 μs
Ethernet	2 ports, Ethernet switch Modbus TCP Client/Server 16/16 Ethernet/IP Adapter 8
USB	1 port, Mini USB B type for PLC program upload/download, monitor and firmware upgrading
RS485	2 ports, Modbus RTU/ASCII
CANopen	1 port , 5 pin, built-in 120Ω, CANopen DS301 (controls up to 64 slaves) Delta mode : controls 8 Delta servos and 8 Delta motor drives
Built-in I/O	16DI, 12DO
High-Speed Input	3 x 100 kHz; 8 external interrupts
High-Speed Output	4-axes 100 kHz ; 3 output modes
Special Expansion Modules	8 modules both for right and left side
Real-time Clock	Years, months, days, hours, minutes, seconde and weeks Accuracy (sec/month) Enviroment: Cold 0°C / 32°F; Normal 25°C / 77°F; Hot 55°C / 131°F Deviation (sec / month): -117; 52; -132 Active about one week, storing in an electric double layer capacitor

Multi-Axis Motion Controller

DVP-MC

The DVP15MC / DVP50MC Series is a multi-axis motion controller designed for the CANopen / EtherCAT network architecture. It supports CANopen / EtherCAT with built-in motion control instructions (BufferMode and Jerk) for flexible configuration and fast project development. DVP15MC / DVP50MC controls up to 32 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, electronic cam (E-Cam), rotatory cut and G-code.

DVP15MC / DVP50MC features multiple built-in communication interfaces, and can be easily connected to other equipment without additional communication modules. It also provides high-speed and reliable motion control via CANopen / EtherCAT for printing, packaging, wire cutting, robots and other automation control industries.

Motion Control

- Up to 32 real axes control
  (virtual axis no.: 1 ~ 32, can't be repetitive with real axis no.)
- Built-in motion control instructions and easy to use
- Supports encoder axis and virtual axis
- Single axis motion control instructions: speed, torque, homing, and position setup
- Application instructions: electronic gear, E-Cam, and rotary cut
- G-code: 8 axes linear / arc / helical interpolation
- Coordinates motion control instructions

Performance

- 1 GHZ high-speed floating point operation
- High-precision computing:
  supports LREAL (Double-precision floating-point format)
- Synchronization time:
  - DVP15MC: 4 axes in 2ms, 8 axes in 4ms
  - DVP50MC: 32 axes in 1ms
- Program capacity: 20 MB
- Data capacity: 20 MB

External Interfaces

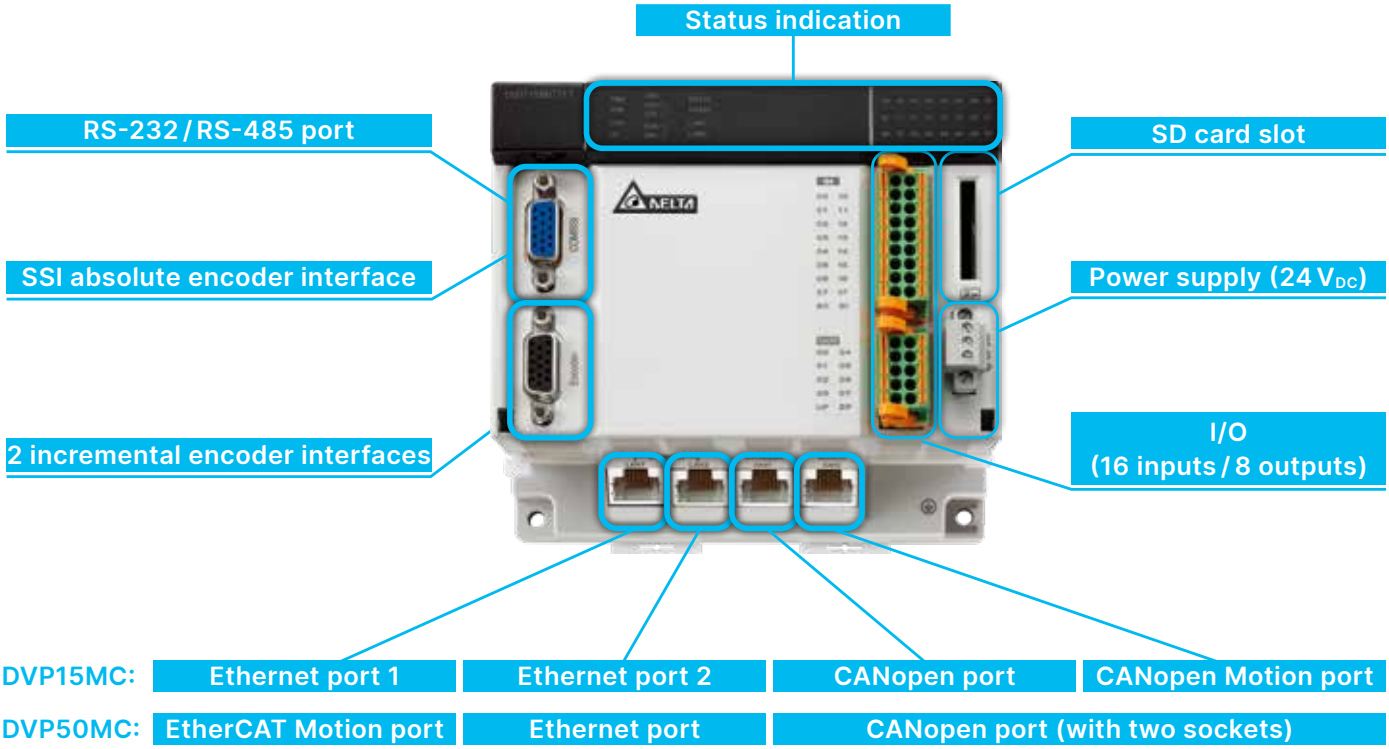
- 1 CANopen port as host or slave station
- 1 Motion port (DVP15MC: CANopen, DVP50MC: EtherCAT)
- 16 high-speed inputs / 8 high-speed outputs
- 2 incremental encoder interfaces
- 1 SSI absolute encoder interface
- Ethernet port: DVP15MC x2, DVP50MC x1
- 1 SD card slot
- 1 RS-232 port and 1 RS-485 port
- Extension:
  - Left-side: supports up to 8 DVP-S Series modules (AIO Slave)
  - Right-side: compatible with DVP-S Series modules (240 DI, 240 DO and 8 special modules)

Motion Network and Wiring

- DVP15MC
  - Motion network: CANopen
  - Communication speed: Max. 1Mbps
  - Distance: Max. 100m (at 500 kbps)
- DVP50MC
  - Motion network: EtherCAT
  - Communication speed: Max. 100Mbps
  - Distance: Max. 50m (Node-to-node)
- Simple wiring, plug-and-play

DVP15MC / DVP50MC Interface

Multiple built-in communication interfaces allow easy connection to other equipment without additional communication modules.

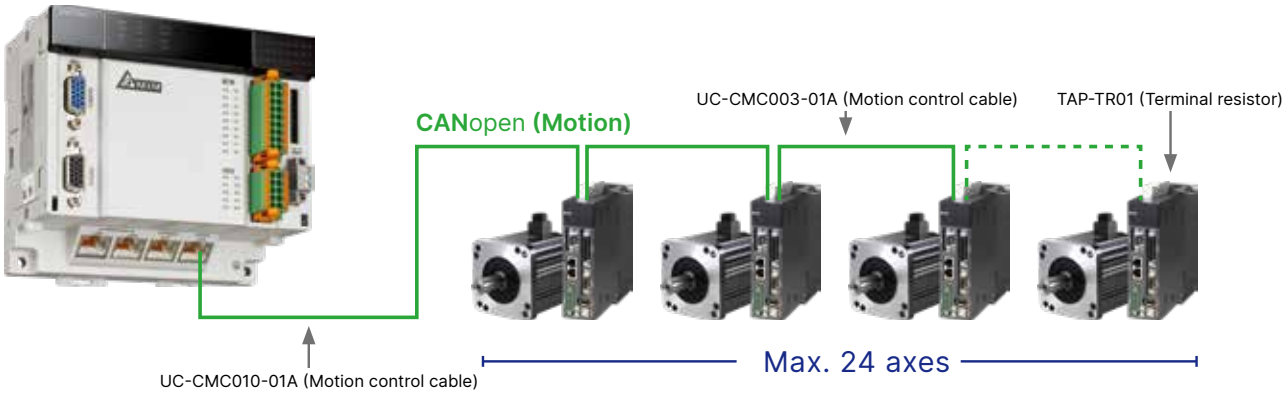


Simple Wiring, Plug-and-Play Motion Control Network

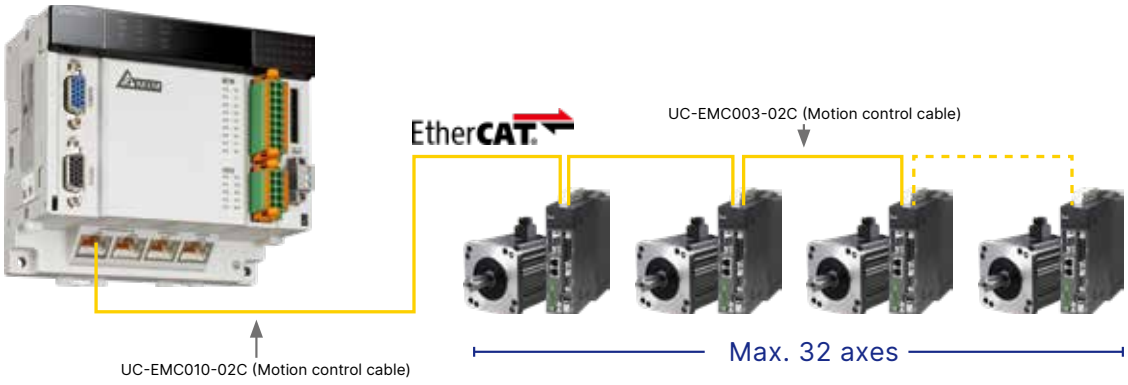
The DVP15MC / DVP50MC features stable CANopen / EtherCAT communication, simple wiring, plug-and-play functions, and communicates with servo drives (axes) via CANopen / EtherCAT network. Delta provides communication cable, terminal resistor and distribution box.

*Please refer to "Accessories" for detailed information

DVP15MC:



DVP50MC:



Compatible with Servo Drives via Motion Port

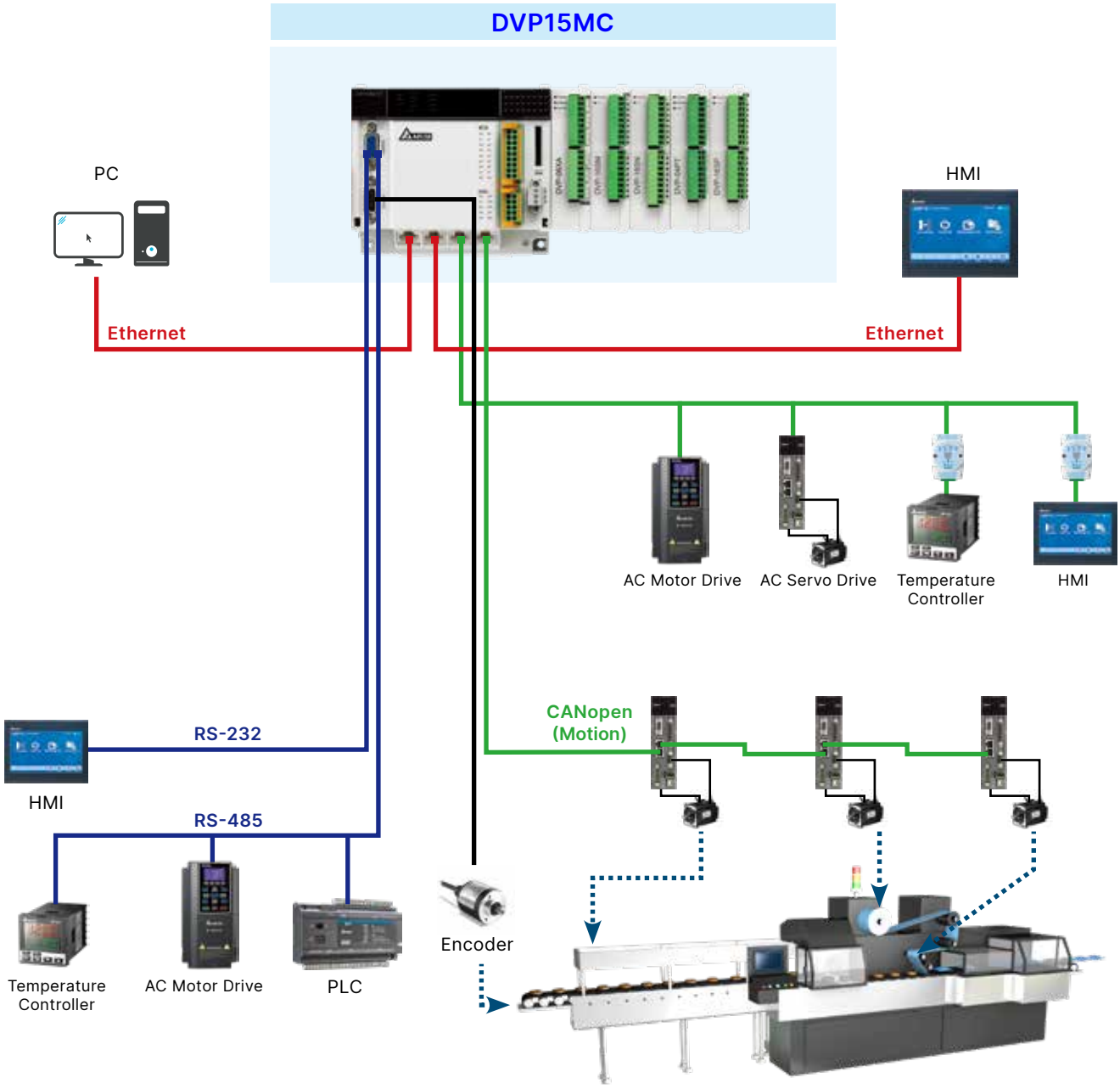
- Delta's AC Motor Drives ASDA-A2-XXXX*-M / ASDA-A2-XXXX*-MN models support CANopen communication, and they are the only models that can be connected to a DVP10MC11T for motion control networks.
- Delta's AC Motor Drives ASDA-A3-XXXX*-M / ASDA-A2-XXXX*-M / ASDA-B3-XXXX*-M models support CANopen communication, and they are the only models that can be connected to a DVP15MC CANopen (Motion) port for motion control networks.
- Delta's AC Motor Drives ASDA-A3-XXXX*-E / ASDA-A2-XXXX*-E / ASDA-B3-XXXX*-E models support EtherCAT communication, and they are the only models that can be connected to a DVP50MC EtherCAT (Motion) port for motion control networks.

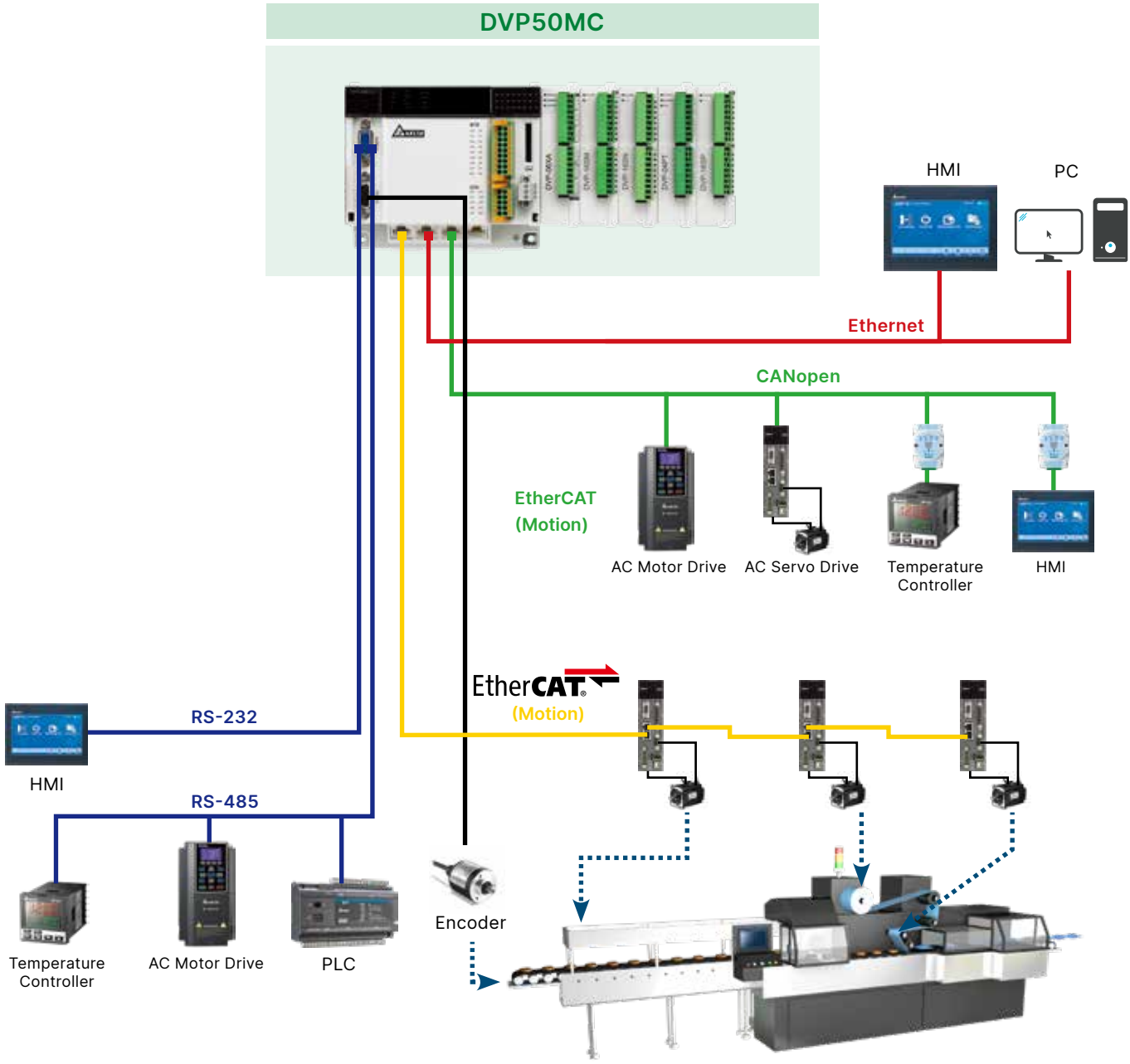
The standard CANopen port of DVP15MC / DVP50MC can be connected to all equipment that supports CANopen networks. The ASDA-A3 / A2 / B3 Series models provide high positioning accuracy and low-speed operation stability.

* XXXX represents output power and input voltage

System Structure

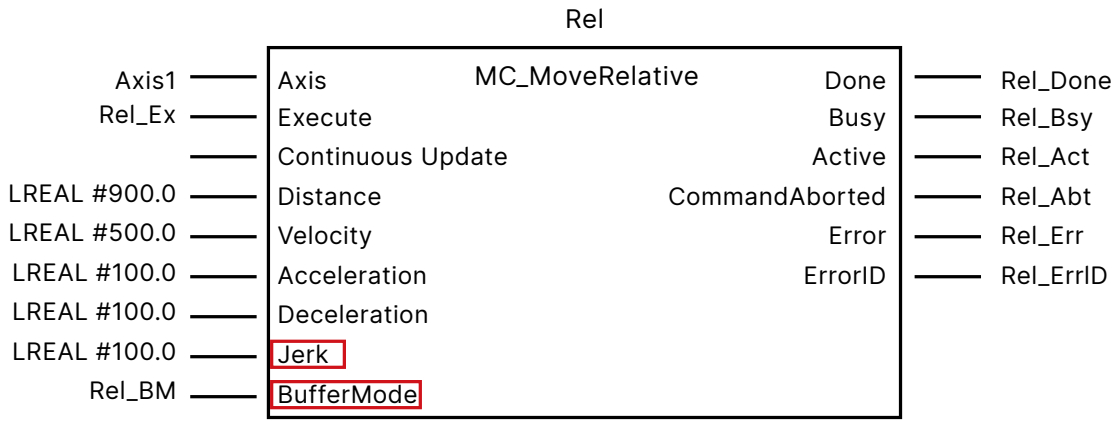
DVP15MC/DVP50MC provides multiple industrial networks. As in the structure shown below, DVP15MC/DVP50MC can be connected to a variety of industrial automation equipment via Ethernet (upper layer), EtherCAT, CANopen, DeviceNet and RS-485 (lower layer, support Modbus).




DVP50MC
HMI
PC
Ethernet
CANopen
EtherCAT
(Motion)
AC Motor Drive
AC Servo Drive
Temperature
Controller
HMI
EtherCAT
(Motion)
RS-232
HMI
RS-485
Temperature
Controller
AC Motor Drive
PLC
Encoder

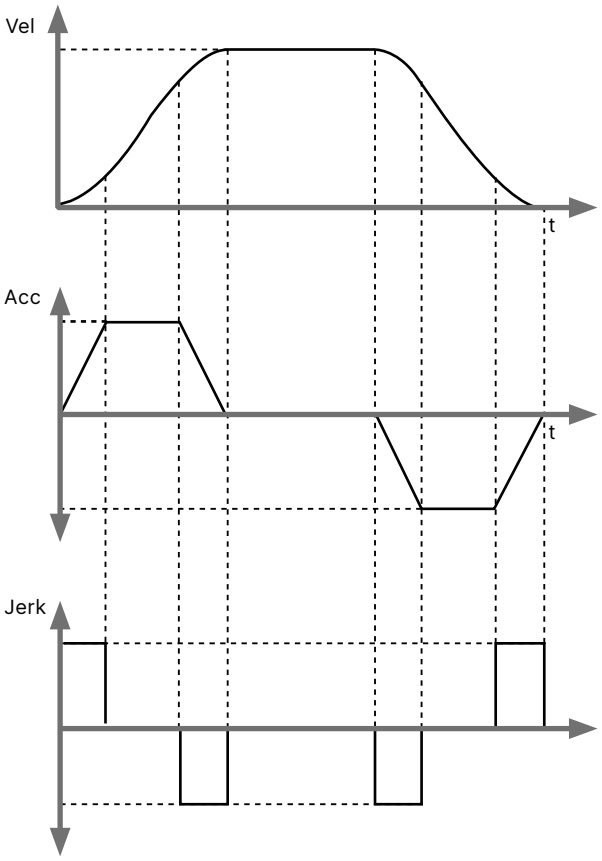
Motion Control

Supports BufferMode and Jerk motion instructions:



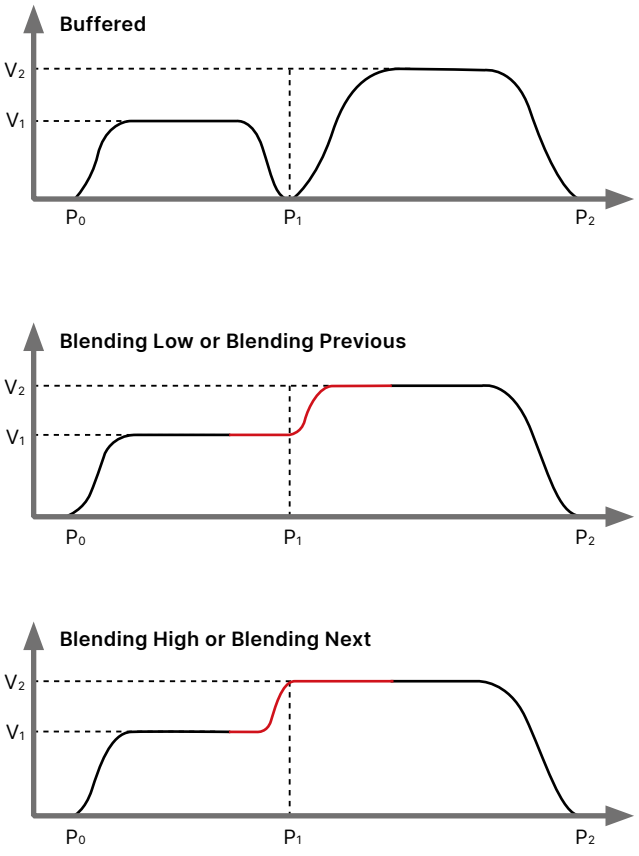
Supports Jerk motion instruction:

Modifies the Jerk value to make the velocity curve smoother



Supports BufferMode motion instruction:

Enables smooth transition between 2 instructions



CANopen Configuration Software: CANopen Builder

- Features 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

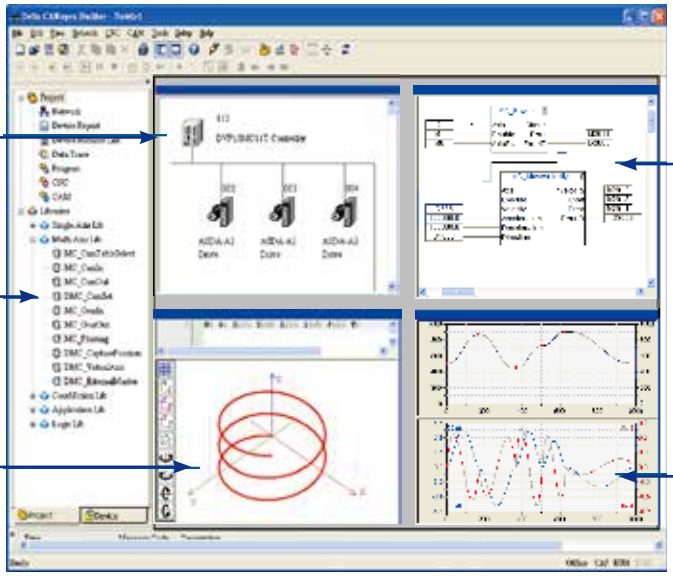
Network scanning for listing all the equipment

■ Motion Control

Supports international standard function blocks for motion control

■ G-code Editor and **Preview**

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



■ Program Editing

CFC, LD, ST, function blocks connection and syntax check

■ E-Cam Curve Planning

Allows users to 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, the DVP-PM Series provides flying shear, rotary cut, electronic cam and many advanced 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-MC is able to generate dynamic cam curves for rotary cutting to ensure precise cutting results.

Digital Board Cutting Machine

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

CNC Lathe

The DVP-PM Series 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.

The 3rd DVP generation Standard / EtherCAT / AIO (DVP-ES3 / ES3-TEC / EX3 Series) and Extension Modules

The option for upgrading machines with multi-functions

Model Name	Specifications
DVP32ES300R	AC, 16, 16, R, C, Ethernet
DVP32ES300T	AC, 16, 16, T, C, Ethernet
DVP32ES311T	DC, 16, 16, T, C, Ethernet
DVP48ES300R	AC, 24, 24, R, C, Ethernet
DVP48ES300T	AC, 24, 24, T, C, Ethernet
DVP64ES300R	AC, 32, 32, R, C, Ethernet
DVP64ES300T	AC, 32, 32, T, C, Ethernet
DVP80ES300R	AC, 40, 40, R, C, Ethernet
DVP80ES300T	AC, 40, 40, T, C, Ethernet
DVP32ES300TEC	AC, 16, 16, T, EtherCAT, Ethernet
DVP22EX300R	AC, 12, 8, R, C, Ethernet, 2AI
DVP22EX300T	AC, 12, 8, T, C, Ethernet, 2AI
DVP28EX300MT	AC, 8, 8, T, M, C, Ethernet, 4*diff.DI / DO +2AI+2AO
DVP36EX300R	AC, 16, 16, R, C, Ethernet, 2AI+2AO
DVP36EX300T	AC, 16, 16, T, C, Ethernet, 2AI+2AO

AC power supply · DC power supply · Inputs · Outputs · Transistor output · Relay output · Diff. output · Ethernet · CANopen · EtherCAT

Standard / AIO PLC (DVP-ES2 / EX2 Series) and Extension Modules

The Most Profitable Solution for Sequential Control

Model Name	Specifications
DVP16ES200R	AC, 8, 8, R
DVP16ES200T	AC, 8, 8, T
DVP20ES200RE	AC, 12, 8, R, Ethernet
DVP20ES200TE	AC, 12, 8, T, Ethernet
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
DVP32E200RC	AC, 16, 16, R, C
DVP32E200TC	AC, 16, 16, T, C
DVP32E200RE	AC, 16, 16, R, Ethernet
DVP32E200TE	AC, 16, 16, T, Ethernet
DVP40ES200R	AC, 24, 16, R
DVP40ES200T	AC, 24, 16, T

Model Name	Specifications
DVP40ES200RE	AC, 24, 16, R, Ethernet
DVP40ES200TE	AC, 24, 16, T, Ethernet
DVP60ES200R	AC, 36, 24, R
DVP60ES200T	AC, 36, 24, T
DVP60ES200RE	AC, 36, 24, T, Ethernet
DVP60ES200TE	AC, 36, 24, T, Ethernet
DVP80ES200R	AC, 40, 40, R
DVP80ES200T	AC, 40, 40, T
DVP20EX200R	AC, 8, 6, R, 2AI/2AO
DVP20EX200T	AC, 8, 6, T, 2AI/2AO
DVP30EX200R	AC, 16, 10, R, 3AI/1AO
DVP30EX200T	AC, 16, 10, T, 3AI/1AO

AC power supply · DC power supply · Inputs · Outputs · Transistor output · Relay output · Diff. output · Ethernet · CANopen · EtherCAT

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

DVP06PT-E2

DVP04TC-E2

DVP-ES2 Series Extension Cable Modules

DVPAEXT01-E2

Slim PLC DVP-S Series

Compact, Flexible Extension

DVP-SV3

The 3rd DVP generation Standard slim PLC

Model Name	Specifications
DVP28SV311R	DC 16 12 R C E
DVP28SV311T	DC 16 12 T C E
DVP28SV311S	DC 16 12 S C E

DC power supply
Inputs
Outputs
Transistor output (NPN)
Relay output
Transistor output (PNP)
Ethernet
CANopen

DVP-SX3

The 3rd DVP generation AIO slim PLC

Model Name	Specifications
DVP20SX311R	DC 8 6 R C E 4AI/2AO
DVP20SX311T	DC 8 6 T C E 4AI/2AO
DVP20SX311S	DC 8 6 S C E 4AI/2AO

DC power supply
Inputs
Outputs
Transistor output (NPN)
Relay output
Transistor output (PNP)
Ethernet
CANopen

Slim PLC DVP-S Series

Compact, Flexible Extension

DVP-SS2

Standard Slim PLC

Model Name	Specifications
DVP28SS211R	DC 16 12 R
DVP28SS211T	DC 16 12 T
DVP28SS211S	DC 16 12 S
DVP14SS211R	DC 8 6 R
DVP14SS211T	DC 8 6 T
DVP12SS211S	DC 8 4 S

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

DVP-SX2

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
T Transistor output (NPN)
Inputs
R Relay output
Outputs
S Transistor output (PNP)

DVP-SA2

Advanced Slim PLC

Model Name	Specifications
DVP28SA211R*1	DC 16 12 R
DVP28SA211T*1	DC 16 12 T
DVP28SA211S*1	DC 16 12 S
DVP12SA211R	DC 8 4 R
DVP12SA211T	DC 8 4 T

*1 The models do not support left-side modules.

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

DVP-SE

Network Type Advanced Slim PLC

Model Name	Specifications
DVP26SE11R*1	DC 14 12 R
DVP26SE11T*1	DC 14 12 T
DVP26SE11S*1	DC 14 12 S
DVP12SE11R	DC 8 4 R
DVP12SE11T	DC 8 4 T

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

DVP-SE2 New

The 2nd Generation Network Type Advanced Slim PLC

Model Name	Specifications
DVP28SE211S	DC 16 12 S
DVP28SE211T	DC 16 12 T

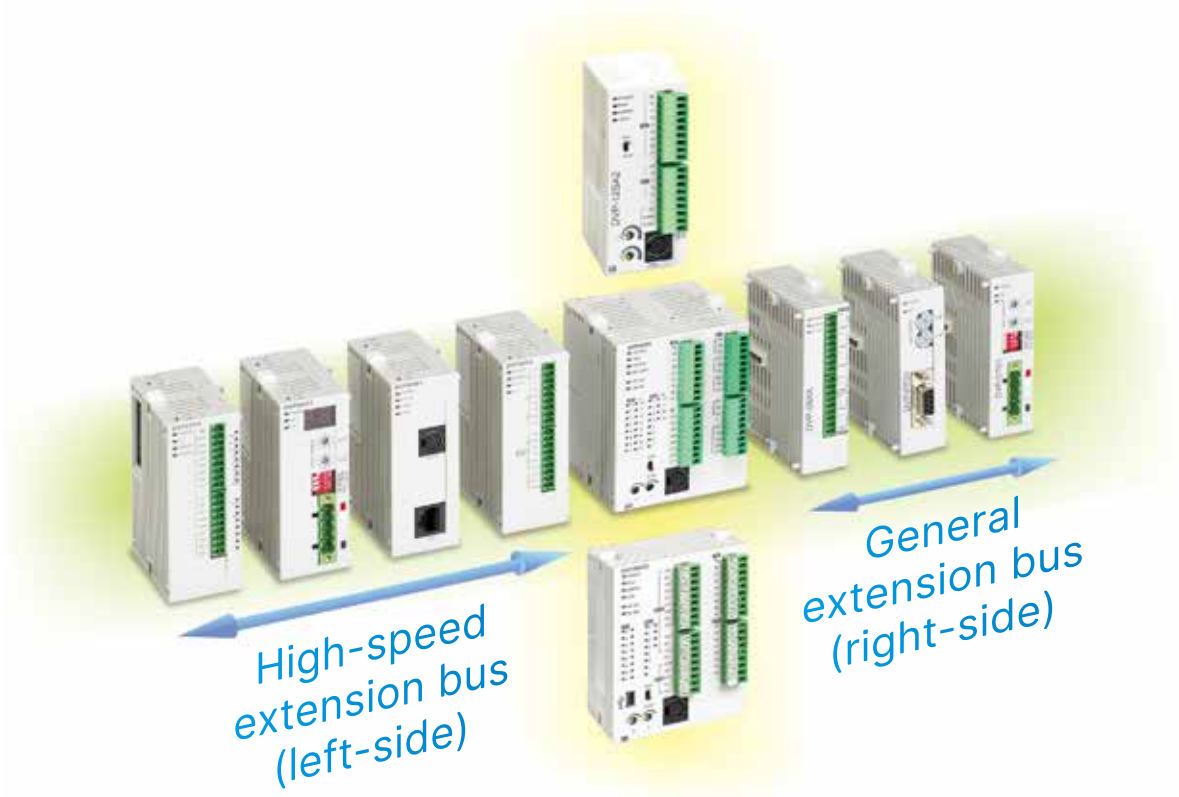
DC DC power supply
Inputs
Outputs
T Transistor output (NPN)
S Transistor output (PNP)

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)



Slim PLC DVP-S Series Extension Modules

High-speed Extension Modules (left-side)

Network Modules

- **PROFINET Device**
  DVPPN02-SL
- **DeviceNet Master**
  DVPDNET-SL
- **CANopen Master**
  DVPCOPM-SL

- **Ethernet**
  DVPEN02-SL

- **RS-422 / RS-485 Serial Communication Module**
  DVPSCM12-SL

- **BACnet MS / TP Slave Serial Communication Module**

Analog Extension

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

Load Cell / Tension

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

Left-Side Positioning Module

- **2 Axes Positioning**
  DVP02PU-SL

General Extension Modules (right-side)[*1]

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 Extension

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

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

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

Temperature Measurement

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

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

- **Sensor: NTC thermistor**
  DVP08NTC-S

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

- **Remote Temperature Control Module:**
  DVP02TKN-S
  DVP02TKR-S
  DVP02TKL-S

Power Supply Modules

DVPPS01
DVPPS02
DVPPS05

*1. Max. quantity of right-side extension module is 14, among which the quantity of –S and –S2 modules must be equal to or less than 8. If the total quantity of extension modules is over 14, applying high density extension modules is recommended

Specifications

Electrical Specifications

	AC	DC
Power Supply Voltage	100 ~ 240 V_{AC} (-15% ~ 10%), 50 / 60Hz ±5%	24 V_{DC} (-15% ~ 20%)
Fuse Capacity	2 A / 250 V_{AC}	
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	
Conformal Coating	Yes	
IP Rating	IP20	

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	**DVP-SV3 / SX3 / SV2**	OFF→ON: 20 µs ON→OFF: 50 µs	**SS2 / SX2** OFF→ON: 3.5 µs ON→OFF: 20 µs	**ES2 / EX2 / SA2 / SX2** OFF ON: 2.5 µs ON→OFF: 5 µs SE2 OFF→ON X0 ~ X7: < 2.5 µs X10 ~ X17: < 25 µs ON→OFF X0 ~ X7: < 2.5 µs X10 ~ X17: < 25 µs	**ES3 / EX3 / SV3 / SX3 / SV2** OFF→ON: 0.15 µs ON→OFF: 3 µs
	DVP-ES3 / EX3 / ES2 / EX2				
	DVP-SS2				
	DVP-SA2 / SX2 / SE / SE2				

*1. For more detailed specifications, see the "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.	**DVP-SV3 / SX3 / SV2**	2 A / 1 Point	0.3 A / point @40 °C	**SA2 / SX2 / ES2 / EX2 / SE** Resistive: 0.5A / point (4 A / COM) Conductive: 12 W (24 V_{DC}) Light bulb: 2 W (24 V_{DC}) **SE2** OFF→ON Y0 ~Y7: 2.5 µs Y10 ~Y13: 250 µs ON→OFF Y0 ~Y7: 2.5 µs Y10 ~Y13: 250 µs	**ES3 / EX3 / SV3 / SX3 / SV2** Resistive: 0.5A / point (4 A / COM) Conductive: 12 W (24 V_{DC}) Light bulb: 2 W (24 V_{DC})
	DVP-ES3 / EX3 / ES2 / EX2				
	DVP-SS2 / SA2 / SX2 / SE / SE2	1.5 A / 1 Point			
Voltage Spec.		250 V_{AC} / 30 V_{DC}	30 V_{DC}		
Response Time		10 ms	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

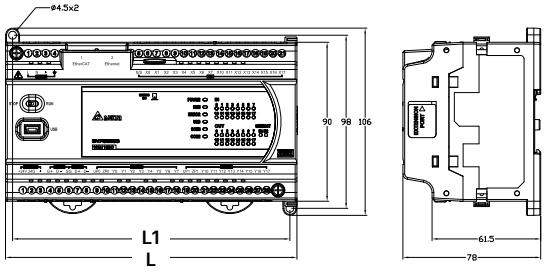
*1. For more detailed specifications, see the "Specification" section in the instruction sheet of each model

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

Dimensions

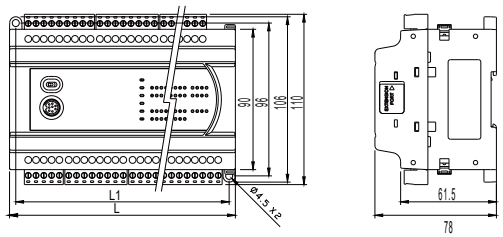
DVP-ES3 / ES3-TEC / EX3 Series

Model Name (mm)	L	L1
DVP32ES300T/R	165	157
DVP32ES311T	165	157
DVP48ES300T/R	216	208
DVP64ES300T/R	267	259
DVP80ES300T/R	310	302
DVP32ES300TEC	165	157
DVP22EX300T/R	165	157
DVP28EX300MT	216	208
DVP36EX300T/R	216	208



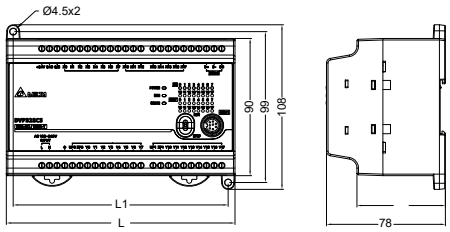
DVP-ES2 / EX2 Series

Model Name (mm)	L	L1
DVP16ES200R/T	105	97
DVP20ES200RE	125	117
DVP20ES200TE	125	117
DVP24ES200R/T	125	117
DVP32ES200R/T	145	137
DVP32ES200RC	145	137
DVP32ES200TC	145	137
DVP32ES200RE	165	157
DVP32ES200TE	165	157
DVP32ES211T	145	137
DVP40ES200R/T	165	157
DVP40ES200RE	194	186
DVP40ES200TE	194	186
DVP60ES200R/T	225	217
DVP60ES200RE	255	247
DVP60ES200TE	255	247
DVP80ES200R/T	302	294
DVP20EX200R/T	145	137
DVP30EX200R/T	165	157



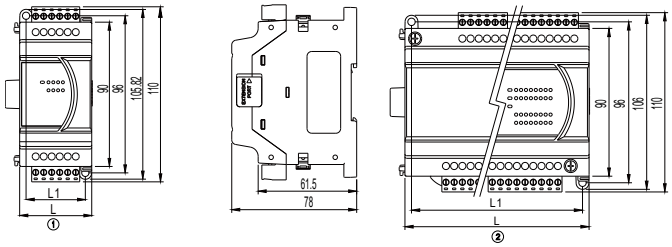
DVP-EC5 Series

Model Name (mm)	L	L1
DVP32EC500T	150	141
DVP48EC500T	240	231
DVP60EC500T	240	231



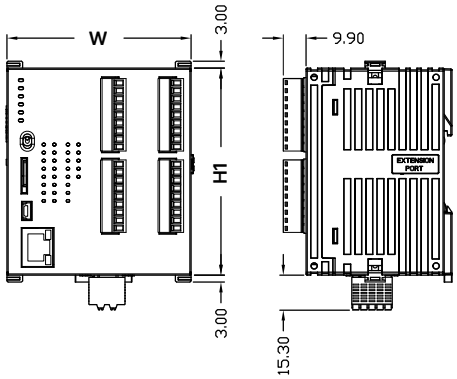
DVP-ES3 / ES2 / EX2 Series

Model Name (mm)	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
DVP06PT-E2	70	62	②
DVP04TC-E2	70	62	②



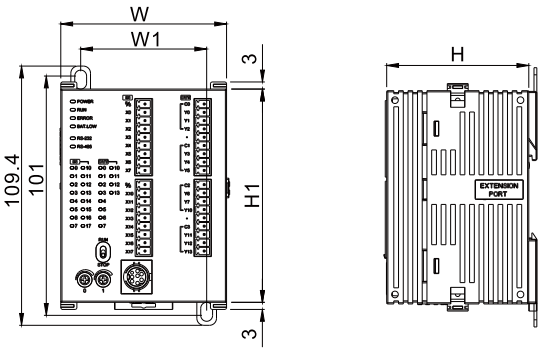
DVP-SV3 / SX3 / SE2 Series New

Model Name (mm)	H	H1	W	W1
DVP28SV311T/R/S	60	90	80	62.6
DVP20SX311T/R/S	60	90	80	62.6
DVP28SE211T/S	60	90	80	62.6

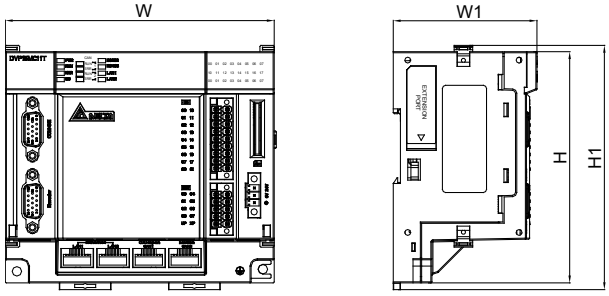


DVP-SV2 / SX2 / MC Series

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

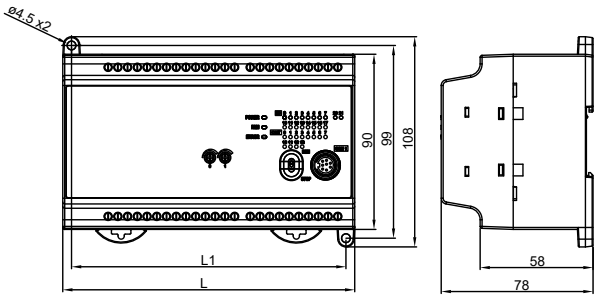


Model Name (mm)	H	H1	W	W1
DVP15MC11T	110	116.2	128	68.4
DVP15MC11T-06	110	116.2	128	68.4
DVP50MC11T/P	110	116.2	128	68.4
DVP50MC11T/P-06	110	116.2	128	68.4
DVP50MC11T-04S/16S	110	116.2	128	68.4



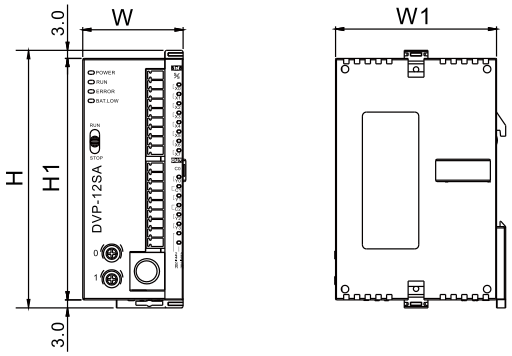
DVP-EC3 Series

Model Name (mm)	L	L1
DVP10EC00R3/T3	95	86
DVP14EC00R3/T3	95	86
DVP16EC00R3/T3	95	86
DVP20EC00R3/T3	150	141
DVP24EC00R3/T3	150	141
DVP30EC00R3/T3	150	141
DVP32EC00R3/T3	150	141
DVP40EC00R3/T3	164	155
DVP48EC00R3/T3	240	231
DVP60EC00R3/T3	240	231



DVP-SE / SS2 / SA2 Series

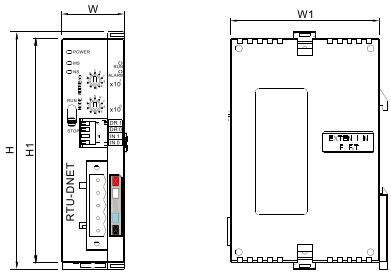
Model Name (mm)	H	H1	W	W1
DVP28SS211R / T / S	96	90	46	60
DVP28SA211R / T / S	96	90	46	60
DVP26SE11R / T / S	96	90	46	60
DVP14SS211R / T	96	90	25.2	60
DVP12SS211S	96	90	25.2	60
DVP12SA211R / T	96	90	37.4	60
DVP12SE11R / T	96	90	37.4	60



Dimensions

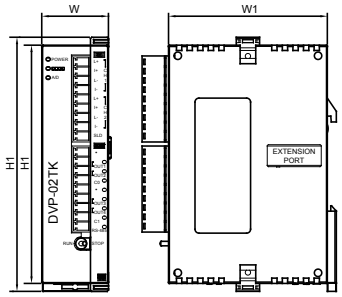
Remote I/O Modules

Model Name (mm)	H	H1	W	W1
RTU-485	96	90	25.2	60
RTU-EN01	96	90	25.2	60
RTU-CN01	96	90	25.2	60
RTU-ECAT	96	90	25.2	60



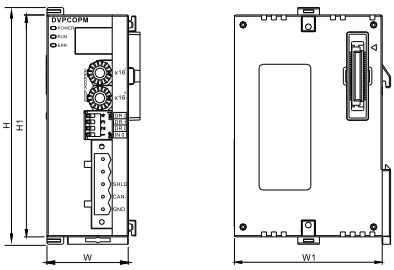
Remote Temperature Control Modules

Model Name (mm)	H	H1	W	W1
DVP02TKN-S	96	90	25.2	60
DVP02TKR-S	96	90	25.2	60
DVP02TKL-S	96	90	25.2	60



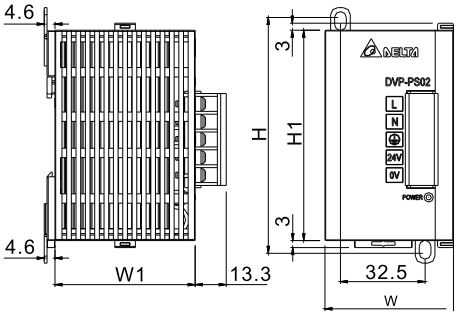
High-Speed Extension Modules (left-side)

Model Name (mm)	H	H1	W	W1
DVPEN02-SL New	96	90	33.1	60
DVPPN02-SL New	96	90	33.1	60
DVP02PU-SL	96	90	33.1	60
DVPCOPM-SL	96	90	33.1	60
DVPDNET-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
DVP201LC-SL	96	90	33.1	60
DVP202LC-SL	96	90	33.1	60
DVP211LC-SL	96	90	33.1	60



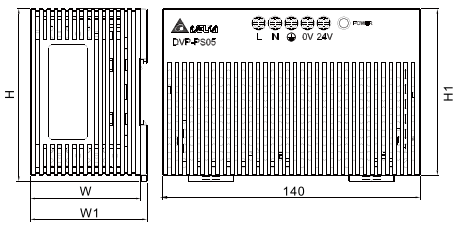
DVP-PS01/02 Power Supply Modules

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

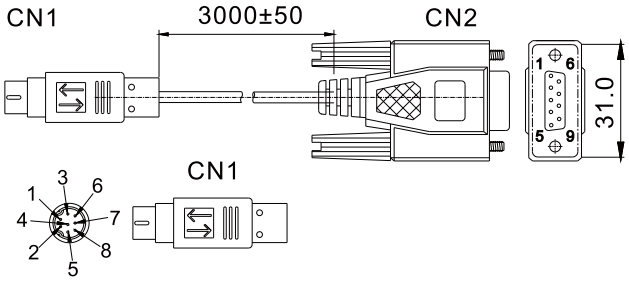


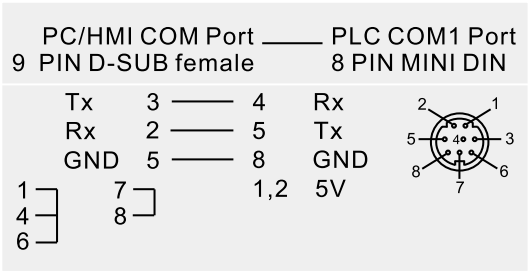
DVP-PS05 Power Supply Modules

Model Name (mm)	H	H1	W	W1
DVPPS05	93.3	90	60	63.4



PIN Definition of UC-MS030-01A

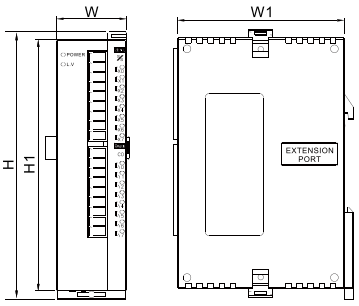




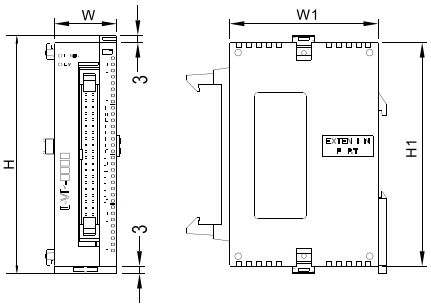
Unit: mm

DVP-S Series
I/O and Extension Modules

Model Name (mm)	H	H1	W	W1
DVP08SM11N	96	90	25.2	60
DVP16SM11N	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-S2	96	90	25.2	60
DVP06AD-S	96	90	25.2	60
DVP02DA-S	96	90	25.2	60
DVP04DA-S2	96	90	25.2	60
DVP06XA-S2	96	90	25.2	60
DVP04PT-S	96	90	25.2	60
DVP08NTC-S	96	90	25.2	60
DVP06PT-S	96	90	25.2	60
DVP04TC-S	96	90	25.2	60
DVP02TUN-S	96	90	25.2	60
DVP02TUR-S	96	90	25.2	60
DVP02TUL-S	96	90	25.2	60



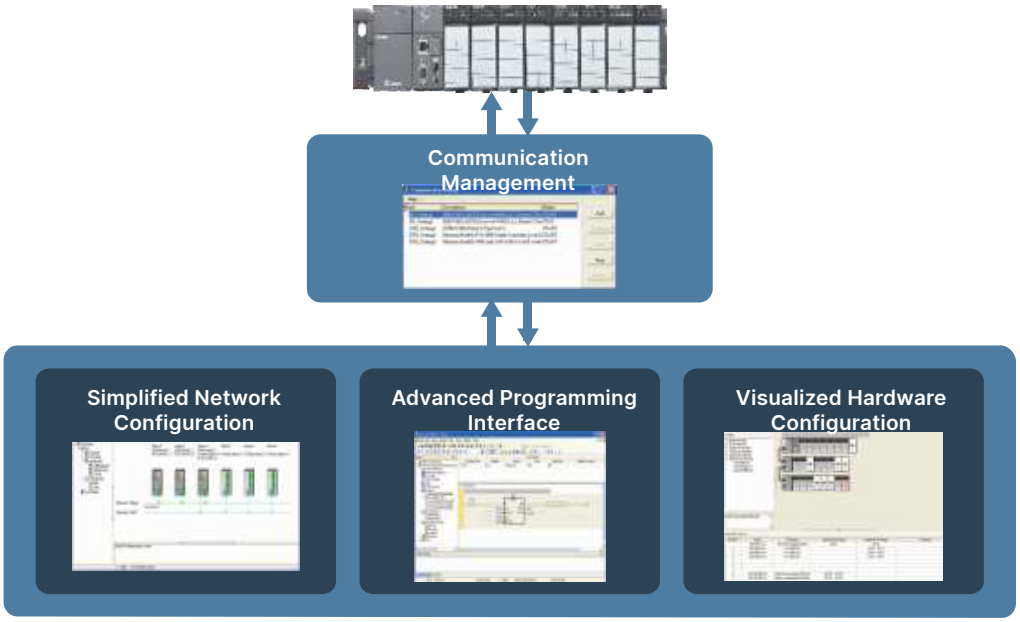
Model Name (mm)	H	H1	W	W1
DVP32SN11TN	96	90	25.2	60
DVP32SM11N	96	90	25.2	60



PLC Editing Software: ISPSoft

Highly Accessible Programming Software with Fully Integrated Interface

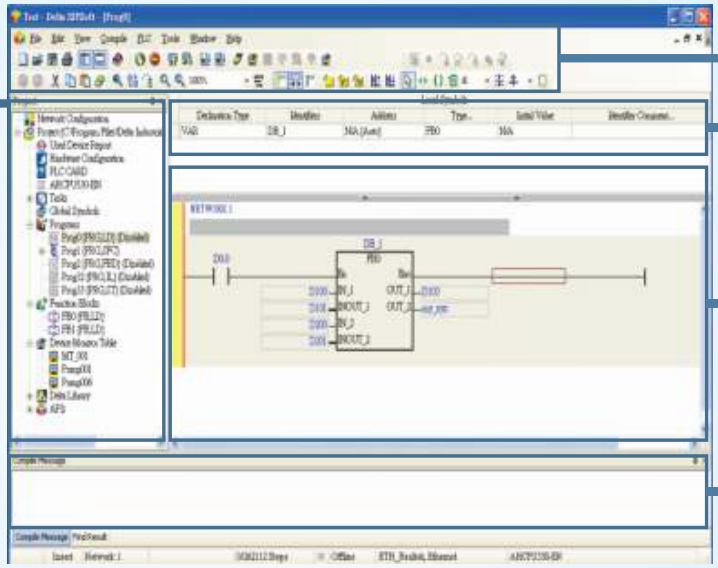
Advanced Programming Interface + Visualized Hardware Configuration + Simplified Network Configuration



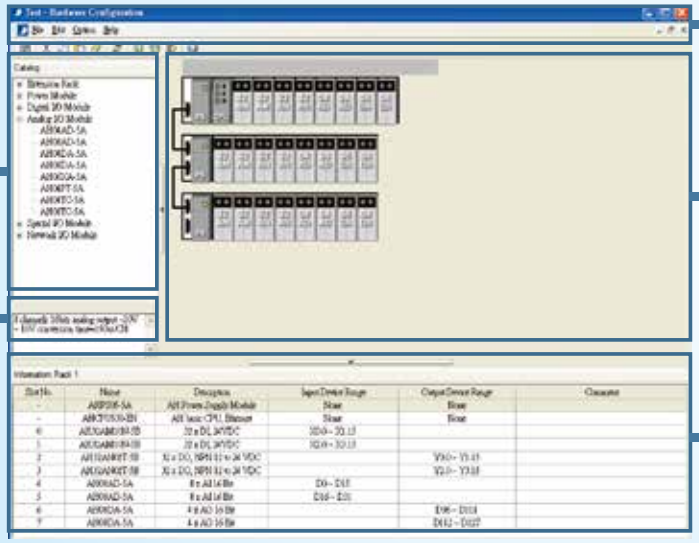
Advanced Programming Interface

Project Management Window

- **New functions:** Network configuration (NWCONFIG), hardware configuration (HWCONFIG) and PLC card utility
- 5 programming languages for programs and function blocks (FB): 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 a 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, and more. Software will provide the usable tasks for different CPUs
- Built-in Delta Function Blocks provide a 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

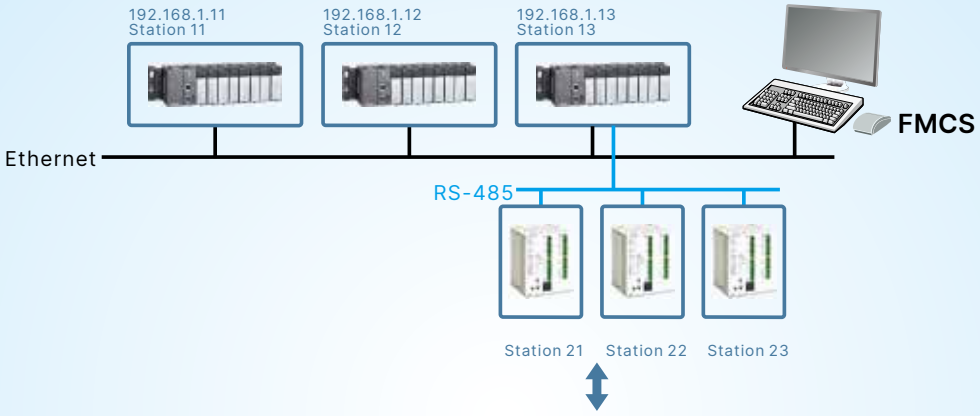
Hardware Configuration Area

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

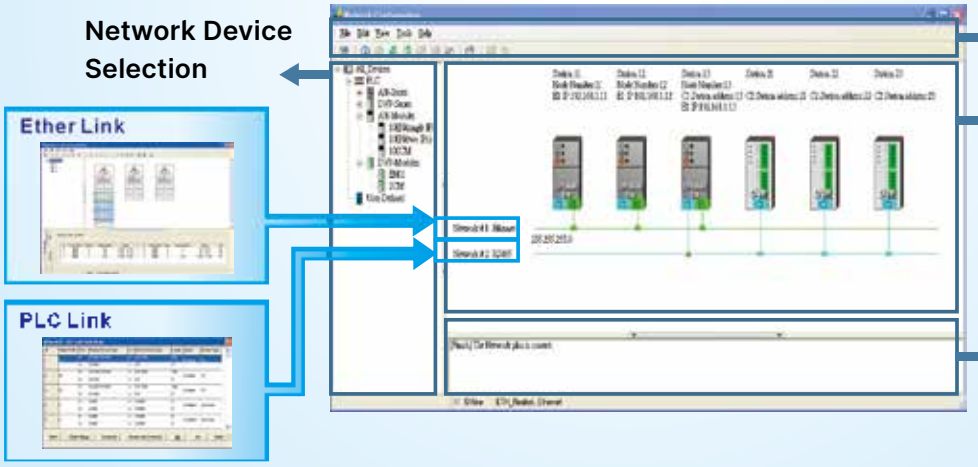
Rack Information

- 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

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 ports (TP04G-AL2)
- Password protection function available
- User-defined boot screen available
- Built-in real time clock (RTC)

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

Applications

Intelligent control systems for aquaculture, steel sleeve tapping machines, air compressors, plant factories

7-Inch Touch Panel HMI with Built-in PLC

TP70P

- Adopts the core of the DVP-SS2 Series PLC: program capacity: 4 k steps / D device: 5k 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 RS-485 port*2
- 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	65,535 colors
Flash Memory	64 M bytes
Function Key	Not available
Password	Available
Recipe Function	Not available
RTC	Available
Serial COM Port	2 sets of RS-485
Editing Software	TPEditor

4-Line Text Panel HMI with Built-in PLC

TP04P

- Adopts the core of the DVP-SS2 Series PLC: program capacity: 8 k steps / D device: 5k 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 RS-485 port*2
- Supports Modbus ASCII/RTU modes
- User-defined boot screen available
- Built-in real time clock (RTC)
- Digital and analog I/O terminals available

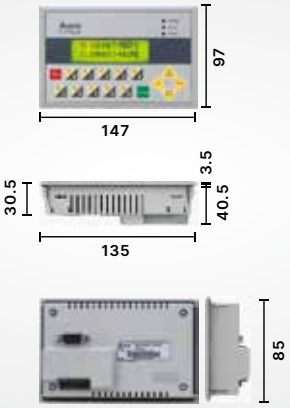
Dimensions	4.1" (101.8 × 35.24 mm)
Resolution	192 × 64
Display Color	Monochrome
Flash Memory	1 M bytes
Function Key	17 function keys
Password	Available
Recipe Function	Not available
RTC	Available
Serial COM Port	2 sets for RS-485
Editing Software	TPEditor

		Text Panel HMI					Text / Touch Panel HMI with Built-in PLC	
Model		TP02G-AS1	TP04G-AS2	TP04G-AL-C	TP04G-AL2	TP04G-BL-C	TP04P-Series	TP70P-Series
								
Display Specifications	Screen Type	STN-LCD						TFT-LCD
	Display Color	Monochrome						65,535
	Resolution	160 x 32	128 x 64	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)	4.1" (101.8 x 35.24 mm)				7" (154 x 85 mm)
Flash Memory		256k 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	**TP70 with I/O:** RS-485
	COM3	-		-	-	-	RS-485	
Extension Interface		The slot for program copy card						-
Real-time Clock		-	Built-in					
Auxiliary Keys	System Keys	6	7	5		7		-
	Function Keys	10	5	5		10		-
Operating Voltage		+24 V_{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		163.6 x 108.6 x 37		175.8 ×108.8 × 37	**TP04P Series:** 175.8 x 108.6 x 59.2	**TP70P Series:** 205.6 x 142.6 x 49
Panel Cutout		136 x 85		151 x 96		163 × 96	163 × 96	191 × 128
Weight		240 g		268 g	270 g	292 g	**TP04PSeries:** 500 g	**TP70P Series:** 680 g
Safety Approvals (Waterproof Class of Front Panel)		IP66 / NEMA 4x / UL Type 4x (Indoor use only)						
Editing Software		TPEditor						

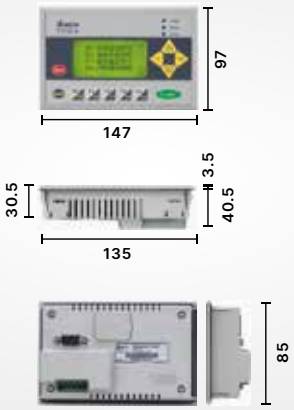
Product Outline and Dimensions

Unit: mm

TP02G-AS1

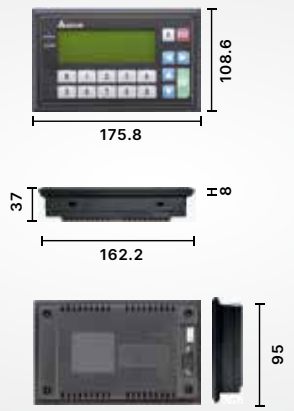


TP04G-AS2

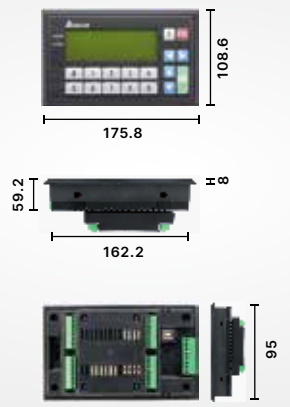


TP04G-AL-C/TP04G-AL2

TP04G-BL-C



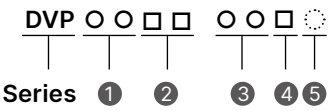
TP04P-Series



TP70P-Series

DVP Series Model Name Instructions

• PLC



1. Total I/O

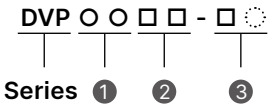
Model
- ES2 / ES3: DVP-ES2 / ES3 series PLC
- EX2 / EX3: DVP-EX2 / EX3 series PLC
- SS2: DVP-SS2 series PLC
- SV2 / SV3: DVP-SV2 / SV3 series PLC
- SA2: DVP-SA2 series PLC
- SX2 / SX3: DVP- SX2 / SX3 series PLC
- SE: DVP-SE / SE2 series PLC
- MC: DVP-MC series PLC
- EC: DVP-EC series PLC

2. Power supply
- 00: AC power input
- 11: DC power input

3. Output type
- R: Relay
- T: Transistor (NPN)
- M: Mixed with differential signal
- S: Transistor (PNP)
- RC: Relay + CANopen
- TC: Transistor + CANopen
- RE: Relay + Ethernet
- TE: Transistor + Ethernet

4. Version

• PI / PO Module

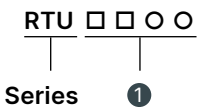


1. Total I/O

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

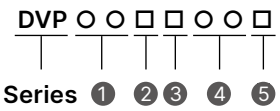
Compatible model
- S: DVP-SV3 / SX3 / SS2 / SA2 / SX2 / SV2 / SE2 / SE / MC series PLC
- SL: left-side extension for DVP-S Series PLC

• Remote I/O



1. **Type**
- 485: RS-485
- EN01: Modbus TCP
- CN01: CANopen
- ECAT: EtherCAT
- PN12: PROFINET

• DI / DO Module



1. Total I/O

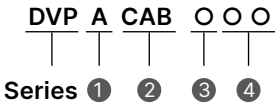
Model
- X: DVP-ES2 / EX2 / ES3 series PLC
- S: DVP-SV3 / SX3 / SS2 / SA2 / SX2 / SV2 / SE / MC series PLC

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

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

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

• Accessory: Cable



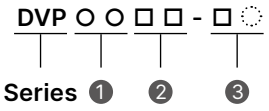
1. Accessory

2. Accessory definition
- CAB: Cable

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

4. Cable length
- 15: 1.5 m
- 30: 3.0 m

• AI / AO Module

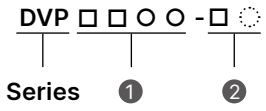


1. Total I/O

2. Module function
- AD: Analog / digital conversion
- DA: Digital / analog conversion
- PT: PT type temperature module
- TC: Thermocouple type temperature module
- NTC : Thermistor type temperature module
- XA: AD + DA module
- LC: Load cell module

3. Compatible model
- S2: DVP-SV3 / SX3 / SS2 / SA2 / SX2 / SV2 / SE2 / SE / MC series PLC
- SL: left-side extension for DVP-S Series PLC
- E2: DVP-ES2 / EX2 / ES3 / EX3 series PLC

• Network Module



1. Module function
- EN02: Modbus TCP Client/Server, MELSEC 3E, RTU-EN01 mapping, SNMP Agent (v1/v2c), SMTPS, Webpage Ethernet/IP Adapter (V1.02), MQTT Client (V1.02)
- DNET: DeviceNet master
- COPM: CANopen master

2. Compatible model
- S: DVP-SV3 / SX3 / SS2 / SA2 / SX2 / SV2 / SE2 / SE / MC series PLC
- SL: left-side extension for DVP-S Series PLC

• Accessory: Other

1. Accessory

2. Accessory definition
- Bt: Battery

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

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

DVP Series PLC Function Overview

Select your desired specifications and locate the most suitable PLC.

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

Item	Specifications	Check	Model											
			ES3	EX3	SV3	SX3	ES2	EX2	SS2	SA2	SX2	SV2	SE	SE2
Power Supply	AC	☐	○	○			◎	◎						
	DC	☐	○		○	○			○	○	○	○	○	○
I/O Points	< 256	☐	△	△			△	△						
	< 512	☐			△	△			△	△	△	△	△	△
Program Capacity	< 8 k	☐							○					
	<16 k	☐					○	○		○	○		○	○
	< 32 k	☐										○		
	< 64 k	☐	○	○	○	○								○
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	○
	EtherCAT	☐	ES3-TEC											
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	☐	○	○	○	○			△	△	△	○	△	○
	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 can support both master and slave; other series support only slave
(Note: DVP26SE / DVP28SA2 only supports right-side modules)

*2: DVP-EX2 / SX2 Series have 4 channels of analog input and 2 channels of analog output

Ordering Information

DVP-EC3 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
DVP-EC3 Series Basic PLC	100 ~ 240 V_{AC}	Relay	6	4	DVP10EC00R3	CE cULus
	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	
	100 ~ 240 V_{AC}	Transistor	12	8	DVP20EC00T3	
	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	

DVP-EC3 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
DVP-EC3 Series Basic PLC	100 ~ 240 V_{AC}	Relay	16	16	DVP32EC00R3	CE cULus
	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	

DVP-EC5 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
DVP-EC5 Series Basic PLC	100 ~ 240 V_{AC}	Transistor	16	16	DVP32EC500T	CE
	100 ~ 240 V_{AC}	Transistor	28	20	DVP48EC500T	
	100 ~ 240 V_{AC}	Transistor	36	24	DVP60EC500T	

DVP-ES3 / ES3-TEC / EX3 / ES2 / EX2 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
DVP-ES3 Series Standard PLC	24 V_{DC}	Transistor	16	16	DVP32ES311T	
	100 ~ 240 V_{AC}	Transistor	16	16	DVP32ES300T	
	100 ~ 240 V_{AC}	Relay	16	16	DVP32ES300R	
	100 ~ 240 V_{AC}	Transistor	24	24	DVP48ES300T	
	100 ~ 240 V_{AC}	Relay	24	24	DVP48ES300R	
	100 ~ 240 V_{AC}	Transistor	32	32	DVP64ES300T	
	100 ~ 240 V_{AC}	Relay	32	32	DVP64ES300R	
	100 ~ 240 V_{AC}	Transistor	40	40	DVP80ES300T	
	100 ~ 240 V_{AC}	Relay	40	40	DVP80ES300R	
DVP-ES3 Series Standard PLC	100 ~ 240 V_{AC}	Transistor	16	16	DVP32ES300TEC	
DVP-ES2 Series Standard PLC	100 ~ 240 V_{AC}	Relay	8	8	DVP16ES200R	
	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	
	24 V_{DC}	Transistor	16	16	DVP32ES211T	
	100 ~ 240 V_{AC}	Relay	24	16	DVP40ES200R DVP40ES200RM*1	
	100 ~ 240 V_{AC}	Transistor	24	16	DVP40ES200T	
	100 ~ 240 V_{AC}	Relay	36	24	DVP60ES200R	
	100 ~ 240 V_{AC}	Transistor	36	24	DVP60ES200T	
	100 ~ 240 V_{AC}	Relay	40	40	DVP80ES200R	
	100 ~ 240 V_{AC}	Transistor	40	40	DVP80ES200T	
DVP-ES2 Series Standard PLC with Built-in CANopen	100 ~ 240 V_{AC}	Relay	16	16	DVP32ES200RC	
	100 ~ 240 V_{AC}	Transistor	16	16	DVP32ES200TC	
DVP-ES2 Series Standard PLC with Ethernet Communication	100 ~ 240 V_{AC}	Relay	12	8	DVP20ES200RE	
	100 ~ 240 V_{AC}	Transistor	12	8	DVP20ES200TE	
	100 ~ 240 V_{AC}	Relay	16	16	DVP32ES200RE	
	100 ~ 240 V_{AC}	Transistor	16	16	DVP32ES200TE	
	100 ~ 240 V_{AC}	Relay	24	16	DVP40ES200RE	
	100 ~ 240 V_{AC}	Transistor	24	16	DVP40ES200TE	
	100 ~ 240 V_{AC}	Relay	36	24	DVP60ES200RE	
	100 ~ 240 V_{AC}	Transistor	36	24	DVP60ES200TE	
DVP-EX3 Series AIO PLC	100 ~ 240 V_{AC}	Transistor Relay	12	8	DVP22EX300T DVP22EX300R	
		Analog	2AI	0		
	100 ~ 240 V_{AC}	Transistor	4 x diff.DI + 8DI	4 x diff.DO + 8DO	DVP28EX300MT	
		Analog	2AI	2AO		
	100 ~ 240 V_{AC}	Transistor Relay	16	16	DVP36EX300T DVP36EX300R	
		Analog	2AI	2AO		
DVP-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		
DVP-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	ES3: 0.025μs ES2 / EX2: 0.35μs	Execution time of MOV instruction	ES3: 0.15μs ES2 / EX2: 3.4μs

*1: Built-in SD card slot

Ordering Information

DVP-ES3 / ES3-TEC / EX3 / ES2 / EX2 Series Digital I/O Module (AC power supply)

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
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	

DVP-ES3 / ES3-TEC / EX3 / ES2 / EX2 Series Digital I/O Module (AC power supply)

Product Name	Output Method	Inputs	Outputs	Model Name	Certificates
Digital Module	-	8	-	DVP08XM211N	CE cULus
	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	
Analog I/O Module	• 4 points of analog voltage (10 V, 5 V) / current (20 mA, 0 ~ 20 mA, 4 ~ 20 mA) input *1 • Resolution: 14-bit (-32,000 ~ +32,000)			DVP04 AD-E2	
	• 4 points of analog voltage (-10 V ~ +10 V) / current (0 ~ 20 mA, 4 ~ 20 mA) output*1 • Resolution: 14-bit (-32,000 ~ +32,000) / (0 ~ +32,000)			DVP04DA-E2	
	• 2 points of analog voltage (-10 V ~ +10 V) / current (0 ~ 20 mA, 4 ~ 20 mA) output *1 • Resolution: 14-bit (-32,000 ~ +32,000) / (0 ~ +32,000)			DVP02DA-E2	
	• 4 points of analog voltage (10 V, 5 V) / current (20 mA, 0 ~ 20 mA, 4 ~ 20 mA) input *1 • Input resolution: 14-bit (-32,000 ~ +32,000) • 2 points of analog voltage (-10 V ~ +10 V) / current (0 ~ 20 mA, 4 ~ 20 mA) output • Output resolution: 14-bit (-32,000 ~ +32,000) / (0 ~ +32,000)			DVP06XA-E2	
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	
	• 6 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input / 0 ~ 300Ω resistance input *1 • Resolution: 16-bit • With PID temperature control			DVP06PT-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	
Extension module	• Extends distance between the I/O modules of the DVP-ES2 Series within a given distance			DVPAEXT01-E2	

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

DVP-S Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
DVP-SV3 Series Standard PLC	24 V_{DC}	Transistor	16	12	DVP28SV311T	CE cULus
	24 V_{DC}	Relay	16	12	DVP28SV311R	
	24 V_{DC}	Transistor (PNP)	16	12	DVP28SV311S	
Execution time of basic instructions		**0.025 μs**	**Execution time of MOV instruction**		**0.15 μs**	
DVP-SV2 Series Functional Slim PLC	24 V_{DC}	Relay	16	12	DVP28SV11R2	CE cULus
	24 V_{DC}	Transistor	16	12	DVP28SV11T2	
	24 V_{DC}	Transistor (PNP)	16	12	DVP28SV11S2	
	24 V_{DC}	Transistor	10 (2AI)	12	DVP24SV11T2	
Execution time of basic instructions			**0.24 μs**			
DVP-SS2 Series Standard Slim PLC	24 V_{DC}	Relay	16	12	DVP28SS211R	CE cULus
	24 V_{DC}	Transistor	16	12	DVP28SS211T	
	24 V_{DC}	Transistor (PNP)	16	12	DVP28SS211S	
	24 V_{DC}	Relay	8	6	DVP14SS211R	
	24 V_{DC}	Transistor	8	6	DVP14SS211T	
	24 V_{DC}	Transistor (PNP)	8	4	DVP12SS211S	
DVP-SA2 Series Advanced Slim PLC	24 V_{DC}	Relay	16	12	DVP28SA211R	CE cULus
	24 V_{DC}	Transistor	16	12	DVP28SA211T	
	24 V_{DC}	Transistor (PNP)	16	12	DVP28SA211S	
	24 V_{DC}	Relay	8	4	DVP12SA211R	
	24 V_{DC}	Transistor	8	4	DVP12SA211T	
Execution time of basic instructions		**0.35 μs**	**Execution time of MOV instruction**		**3.4 μs**	
DVP-SX3 Series AIO PLC	24 V_{DC}	Transistor Relay Transistor (PNP)	8	6	DVP20SX311T DVP20SX311R DVP20SX311S	CE cULus
			4AI	2AO		
Execution time of basic instructions		**0.025 μs**	**Execution time of MOV instruction**		**0.15 μs**	
DVP-SX2 Series Analog Slim PLC	24 V_{DC}	Relay	8 (4AI)	6 (2AO)	DVP20SX211R	CE cULus
	24 V_{DC}	Transistor	8 (4AI)	6 (2AO)	DVP20SX211T	
	24 V_{DC}	Transistor (PNP)	8 (4AI)	6 (2AO)	DVP20SX211S	
Fastest execution time of basic instructions		**0.35 μs**	**Execution time of MOV instruction**		**3.4 μs**	
New DVP-SE2 Series Network Type Slim PLC	24 V_{DC}	Transistor	16	12	DVP28SE211T	CE cULus
	24 V_{DC}	Transistor (PNP)	16	12	DVP28SE211S	
Fastest execution time of basic instructions		**0.35 μs**	**Execution time of MOV instruction**		**1.29 μs**	
DVP-SE Series Network Type Slim PLC	24 V_{DC}	Relay	14	12	DVP26SE11R	CE cULus
	24 V_{DC}	Transistor	14	12	DVP26SE11T	
	24 V_{DC}	Transistor (PNP)	14	12	DVP26SE11S	
	24 V_{DC}	Relay	8	4	DVP12SE11R	
	24 V_{DC}	Transistor	8	4	DVP12SE11T	
Fastest execution time of basic instructions		**0.64 μs**	**Execution time of MOV instruction**		**2 μs**	

Ordering Information

DVP-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 (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) ▪ Input resolution: 14-bit	▪ Built-in RS-485 interface ▪ Differential input	DVP04 AD-S2	CE cULus
	▪ 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-S2	
	▪ Analog input+output module (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 ▪ Differential input	DVP06XA-S2	

DVP-S Series Analog Module

Product Name	Description		Model Name	Certificates
Analog I/O Module	▪ 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	CE cULus
	▪ 6 points of analog input voltage (-10 V ~ +10 V) / current (-20 mA ~ +20 mA) ▪ Input resolution: 14-bit	▪ Built-in RS-485 interface	DVP06 AD-S	

DVP-S Series Extension Module / High-Speed Module (Left-side)

Product Name	Description		Model Name	Certificates
High-Speed Analog I/O Module (Left-side)	▪ 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)		DVP04 AD-SL	
	▪ 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	
High-Speed Load Cell Module (Left-side)	▪ 1 set of load cell module*1 ▪ Resolution: 24-bit for hardware(ADC), 32-bit for data output	▪ 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 for hardware(ADC), 32-bit for data output ▪ 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 for hardware(ADC), 32-bit for data output	▪ Connectable to 4-wire / 6-wire load cell sensor ▪ Measurable range: 0 ~ 80 mV / V	DVP202LC-SL	
Temperature Measurement Module	▪ 6 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input ▪ Resolution: 0.1 °C / 0.18 °F		DVP06PT-S	CE cULus
	▪ 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 / 0.18 °F ▪ Built-in RS-485 interface		DVP04PT-S	
	▪ 4 points of thermocouple (J, K, R, S, T type) sensor input*1 ▪ Resolution: 0.1 °C / 0.18 °F ▪ Built-in RS-485 interface		DVP04TC-S	
	▪ 8 points of thermistor (NTC) sensor input ▪ Resolution: 0.1 °C / 0.18 °F ▪ Built-in RS-485 interface		DVP08NTC-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 / 0.18 °F ▪ 4 points of NPN transistor output: 24 V_{DC} / 300mA ▪ Output point: built-in PID program control / manual control		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 / 0.18 °F ▪ 4 points of relay output: 24 V_{DC} / 3 A ▪ Output point: built-in PID program control / manual control		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 / 0.18 °F ▪ 2 points of analog output: 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA ▪ Output point: built-in PID program control / manual control		DVP02TUL-S	

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

Ordering Information

DVP-S Series Extension Module / High-Speed Module (Left-side)

Product Name	Description	Model Name	Certificates
Left-Side Positioning Module	▪ 2-axis positioning left-side extension module. ▪ 5 ~ 24 V_{DC}, 1 x (A/B/Z phase) differential input (Max. 200 kHz frequency) ▪ 24 V_{DC}, 5mA, 5 points inputs (Max. 1kHz frequency) ▪ 5 V_{DC}, 2 axes (4 points) differential output (Max. 200 kHz frequency)	DVP02PU-SL	
Left-Side High-Speed Communication Module	▪ Ethernet module ▪ 2 x RJ45 Ethernet ports, 10/100 Mbps ▪ Support Modbus TCP Client / Server, MELSEC 3, RTU-EN01 mapping, SNMP Agent(v1/45v2c), SMTPS, Webpage, Ethernet/IP Adapter (V1.02), MQTT Client (V1.02)	DVPEN02-SL New	
	▪ PROFINET Device ▪ 2 x RJ45 Ethernet ports, 100 Mbps ▪ IO data length: 512 Byte ▪ Comm. mode: RT ▪ Min comm, cycle: 1 ms ▪ Supported topology: line, start, tree ▪ Distance: < 50 meters between 2 modules	DVPPN02-SL New	
	DeviceNet master communication module, 500 Kbps	DVPDNET-SL	
	CANopen master communication module, 1 Mbps	DVPCOPM-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 DVP-S series I/O modules	RTU-485	
	Ethernet remote I/O module, connectable to DVP-S series I/O modules	RTU-EN01	
	CANopen remote I/O module, connectable to DVP-S series I/O modules	RTU-CN01	
	EtherCAT remote I/O module, connectable to DVP-S series I/O modules	RTU-ECAT	
Remote Temperature Control Module	▪ 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 / 0.18 °F ▪ 4 points of NPN transistor output: 24 V_{DC} / 300mA ▪ Output point: built-in PID program control / manual control	DVP02TKN-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 / 0.18 °F ▪ 4 points of relay output: 24 V_{AC} / 3 A ▪ Output point: built-in PID program control / manual control	DVP02TKR-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 / 0.18 °F ▪ 2 points of analog output: 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA ▪ Output point: built-in PID program control / manual control	DVP02TKL-S	

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

Communication Converter

Product Name	Description	Model Name	Certificates
Converter	▪ EtherNet/IP, Modbus TCP, RS-422 / RS-485(x2) converter ▪ Support SNMP and User Define (UD Link) ▪ Provide web page help set-up parameters ▪ Bidirectional communication (Ethernet ⟷ Serial): Modbus TCP to Modbus ASCII/RTU, TCP/UDP Socketand UD Link ▪ One way communication(Ethernet → Serial): EtherNet/IP(Adapter) to Modbus ASCII/ RTU(data exchange table), SNMP(Agent) and Modbus ASCII/RTU (data exchange table)	IFD7750 New	
	USB to RS-485 converter	IFD6500	
	USB to CAN converter	IFD6503	
	USB to RS-485 converter	IFD6530	
	EtherNet/IP, Modbus TCP to RS-232,RS-485 converter	IFD9506	
	RS-232 to RS-422 / 485 isolated converter	IFD8500-A	
	RS-485 to RS-422 isolated repeater	IFD8510-A	

DVP-MC Series

Product Name	Power Supply	Communication Protocol	Axes Controlled	Inputs	Outputs	Model Name	Certificates
Multi-axis Motion Controller	24 V_{DC}		24	16	8 (NPN)	DVP15MC11T	CE cULus
			6	16	8 (NPN)	DVP15MC11T-06	
		EtherCAT	32	16	8 (NPN)	DVP50MC11T	
			32	16	8 (PNP)	DVP50MC11P	
			6	16	8 (PNP)	DVP50MC11P-06	
			6	16	8 (NPN)	DVP50MC11T-06	
			4 (Point-to-Point)	16	8 (NPN)	DVP50MC11T-4S	
			16 (Point-to-Point)	16	8 (NPN)	DVP50MC11T-16S	

TP Series

Product Name	Description	Model	Certificates
TP02	Resolution: 160 x 32, Serial COM ports: RS-232 & RS-485	TP02G-AS1	CE cULus
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	CE
	Resolution: 192 x 64, Serial COM ports: RS-232 & RS-422 / RS-485, 0 ~ 9 numeric keys available	TP04G-BL-C	

Product Name	Description	DI	DO	AI*2	AO*2	PT	AX*1	LC	Output Type	Model	Certificates
TP04P	Resolution: 192 x 64 Serial COM ports: USB & RS-485*2	8	8						Relay	TP04P-16TP1R	CE cULus
		16	16						Relay	TP04P-32TP1R	
		8	8	4 (V/I)	2 (V/I)				Relay	TP04P-22XA1R	
		8	8	2 (I)	1 (I)	2			Relay	TP04P-21EX1R	
		8	8						Transistor	TP04P-16TP1T	
		16	16						Transistor	TP04P-32TP1T	
TP70P	Resolution: 800 x 400 Serial COM ports: USB & RS-485*2	8	8						Relay	TP70P-16TP1R	
		16	16						Relay	TP70P-32TP1R	
		8	8	4 (V/I)	2 (V/I)				Relay	TP70P-22XA1R	
		8	8	2 (I)	1 (I)	2			Relay	TP70P-21EX1R	
		8	8						Transistor	TP70P-16TP1T	
		16	16						Transistor	TP70P-32TP1T	
		8	8	4 (V/I)	2 (V/I)				Transistor	TP70P-22XA1T	

*1: Universal analog input (mA, V, RTD)
*2: V (Voltage), I (Current)

Software

Product Name	Description	OS (Windows-based Software)
DIADesigner	Provides an integrated environment of controllers and terminal equipment to proceed with project management, IEC61131-3 programming, and parameter setting, adjusting & monitoring, allowing users to quickly implement complex industry application. (PLC programming languages: LD,ST,SFC)	Windows 10 / 11 64 bits
COMMGR	Communication management software	Windows® 7 / 8 / 10 (64-bit) / 11(64-bit)
ISPSoft	PLC editing software for AH, AS 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 Series	Windows 98, Me, NT4.0, 2000, XP, Vista, Windows 7 (32-bit / 64-bit)
TPEditor	Editing software for TP Series	Windows 98, Me, NT4.0, 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)

Ordering Information

Starter Kit

Product Name	Model Name	Contents
Delta PLC Starter Kit	UT-14SS2-A	DVP14SS211R (PLC), DOP-107BV (HMI) and accessory
	UT-12SE-A1	DVP12SE11R (PLC), DOP-107EV (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

Accessories

Type	Model Name	Description	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 right angle 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	

Accessories

Type	Model Name	Description	Specification		Applicable Modules
			Length	Connector / Terminal Block	
I/O External Terminal Module	UC-ET010-24A	I/O extension cable for connecting external terminal modules	1 m	PLC (MIL IDC40←→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 (MIL IDC40←→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 (MIL IDC40←→IDC20 x 2) external terminal modules	DVP32SN11TN←→UB-10-OR16A
	UC-ET010-24D	I/O extension cable for connecting external terminal modules	1 m	PLC (MIL IDC40←→IDC20 x 2) external terminal modules (shielded wire)	DVP32SN11TN←→UB-10-OR16A
	UC-ET020-24B	I/O extension cable for connecting external terminal modules	2 m	PLC (MIL IDC40←→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 (MIL IDC40←→IDC20 x 2) external terminal modules (shielded wire)	DVP32SN11TN←→UB-10-OR16A
	UC-ET030-24B	I/O extension cable for connecting external terminal modules	3 m	PLC (MIL IDC40 ←→ 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 (MIL IDC40 to IDC20 x 2) external terminal modules (shielded wire)	DVP32SN11TN←→UB-10-OR16A
Motion Control Cable / Industrial Communication Cable	UC-CMC003-01A	CANopen communication cable	0.3 m	RJ45	DVPCOPM-SL DVP15MC11T DVP15MC11T-06 TAP-CN03
	UC-CMC005-01A		0.5 m		
	UC-CMC010-01A		1 m		
	UC-CMC015-01A		1.5 m		
	UC-CMC020-01A		2 m		
	UC-CMC030-01A		3 m		
	UC-CMC050-01A		5 m		
	UC-CMC100-01A		10 m		
	UC-CMC200-01A		20 m		
	UC-EMC003-02C	EtherCAT communication cable (High anti-interference)	0.3 m	RJ45	DVP50MC11T DVP50MC11T-06
	UC-EMC005-02C		0.5 m		
	UC-EMC010-02C		1 m		
	UC-EMC020-02C		2 m		
	UC-EMC050-02C		5 m		
	UC-EMC100-02C		10 m		
	UC-EMC200-02C		20 m		
	UC-EMC003-02B	EtherCAT communication cable	0.3 m	RJ45	
	UC-EMC005-02B		0.5 m		
	UC-EMC010-02B		1 m		
	UC-EMC020-02B		2 m		
	UC-EMC030-02B		3 m		
	UC-EMC050-02B		5 m		
	UC-EMC100-02B		10 m		
Industrial Communication Cable	UC-DN01Z-02A*1	DeviceNet / CANopen communication cable (Drop cable - thin)		--	
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	--	--	--
	Data backup memory card (DVP-ES2 only)				DVP-E64FM
	Data backup memory card (64k words)				DVPPCC01
	Communication cable for PC (9-pin & 25-pin D-Sub) and PLC, 1.5 m				DVPACAB215
	Communication cable for PC (9-pin & 25-pin D-Sub) and PLC, 3 m				DVPACAB230
	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
	DeviceNet / CANopen distribution box, 2 for 3				TAP-CN02
	DeviceNet / CANopen distribution box, 2 for 3 RJ45				TAP-CN03
	3.6 V lithium battery (unchargeable) for RTU-EN01				DVPABT01
	Terminal resistance for CANopen communication (RJ45)				TAP-TR01
	Programming cable for TP Series				UCPRG030-10A

*1: Not available in Taiwan

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