

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



Automation for a Changing World

Delta Programmable Logic Controller DVP Series



reddot design award
winner 2010

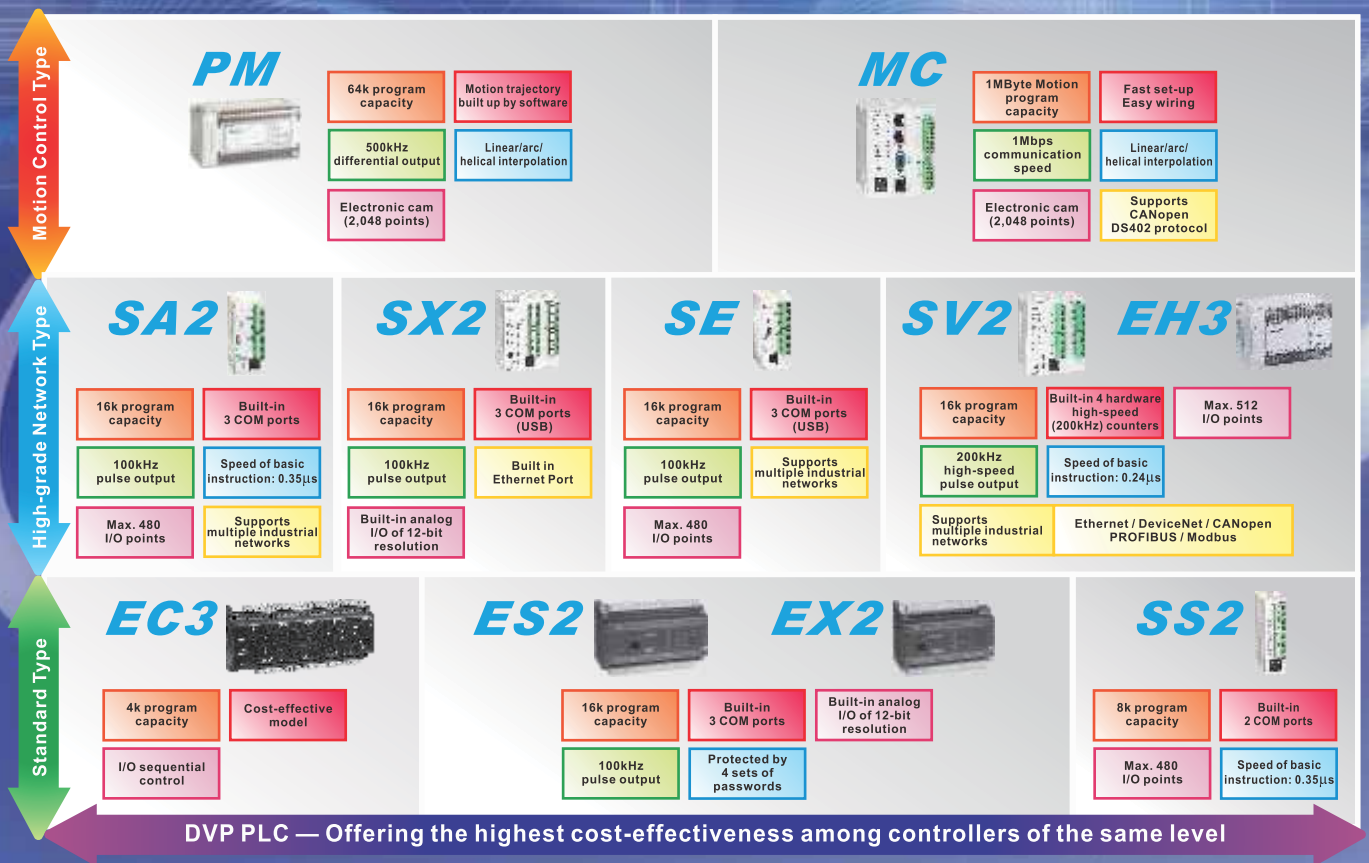
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 **DELTA**
Smarter. Greener. Together.

The Perfect Small PLC Revolution!

After launching 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.

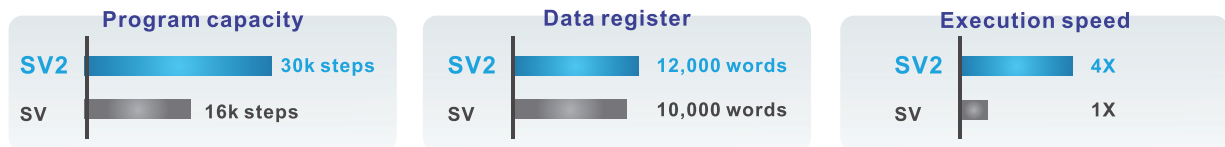




High Performance Slim PLC

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 sets of 200kHz pulse output
- ▶ Supports max. 4 hardware 200kHz 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 losing 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.
Add new ETHRW instruction for Ethernet communication

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		
Sets	Bandwidth	Sets	Bandwidth	Sets	Bandwidth	Sets	Bandwidth
8	10kHz	4	200kHz	2/2	200kHz/20kHz	2/2	200kHz/20kHz



2nd Generation Standard Slim PLC DVP-SS2

Economic and Compact PLC. Max. 480 I/O points

- ▶ Program capacity: 8k steps
Data register: 5k words
- ▶ Higher execution speed compared to the competition: LD: 0.35 μ s, MOV: 3.4 μ s
- ▶ Built-in RS-232 and RS-485 ports (Master/Slave). Supports standard MODBUS ASCII/RTU protocol and PLC Link function.

Motion Control Functions

- ▶ 4 sets of 10kHz pulse output
- ▶ 8 sets 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	
Sets	Bandwidth	Sets	Bandwidth	Sets	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

- ▶ Program capacity: 16k steps
Data register: 10k words
- ▶ Higher execution speed compared to the competition: LD: 0.35 μ s, MOV: 3.4 μ s
- ▶ 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 sets of high-speed pulse output: 100kHz/2 sets, 10kHz/2 sets
- ▶ 8 sets of high-speed pulse input:
100kHz/2 sets, 10kHz/6 sets, 1 group 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	
Sets	Bandwidth	Sets	Bandwidth	Sets	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

- ▶ Program capacity: 16k steps
Data register: 10k words
- ▶ Higher execution speed compared to the competition: 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)
It operates for at least one week after power off
- ▶ Supports DVP-S series left-side and right-side modules

Motion Control Functions

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

Built-in Analog I/O

Analog Input		Analog Output	
Points	4	Points	2
Resolution	12-bit	Resolution	12-bit
Spec.	-20~20mA or -10~10V 4~20mA	Spec.	0~20mA or -10~10V 4~20mA

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

- ▶ Program capacity: 16k steps
Data register: 12k words
- ▶ Higher execution speed compared to the competition:
LD: 0.64μs, MOV: 2μs
- ▶ Built-in Ethernet supports MODBUS TCP and Ethernet/IP
- ▶ 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 sets of high-speed pulse output: 100kHz/2 sets, 10kHz/2 sets
- ▶ 8 sets of high-speed pulse input: 100kHz/2 sets, 10kHz/6 sets
- ▶ Supports 2-axis linear and arc interpolation

Built-in High-Speed Counters

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

Compact, Flexible Extension!

DVP-SS2

2nd-Generation Standard Slim PLC



Model name	Spec.
DVP14SS211R	—DC— 8 6 (R)→
DVP14SS211T	—DC— 8 6 (T)→
DVP12SS211S	—DC— 8 4 (S)→

(R)→: Relay output C→: Inputs U↑: Outputs
 —DC—: DC power supply (T)→: Transistor output
 (S)→: Transistor output (PNP)

DVP-SX2

2nd-Generation Analog I/O Slim PLC



Model name	Spec.
DVP20SX211R	—DC— 8 6 (R)→ 4AI/2AO
DVP20SX211T	—DC— 8 6 (T)→ 4AI/2AO
DVP20SX211S	—DC— 8 6 (S)→ 4AI/2AO

(R)→: Relay output C→: Inputs U↑: Outputs
 —DC—: DC power supply (T)→: Transistor output
 (S)→: Transistor output (PNP)

DVP-SA2

2nd-Generation Advanced Slim PLC



Model name	Spec.
DVP12SA211R	—DC— 8 4 (R)→
DVP12SA211T	—DC— 8 4 (T)→

(R)→: Relay output C→: Inputs U↑: Outputs
 —DC—: DC power supply (T)→: Transistor output

DVP-SV2

High Performance Slim PLC



Model name	Spec.
DVP28SV11R2	—DC— 16 12 (R)→
DVP28SV11T2	—DC— 16 12 (T)→
DVP28SV11S2	—DC— 16 12 (S)→

(R)→: Relay output C→: Inputs U↑: Outputs
 —DC—: DC power supply (T)→: Transistor output
 (S)→: Transistor output (PNP)

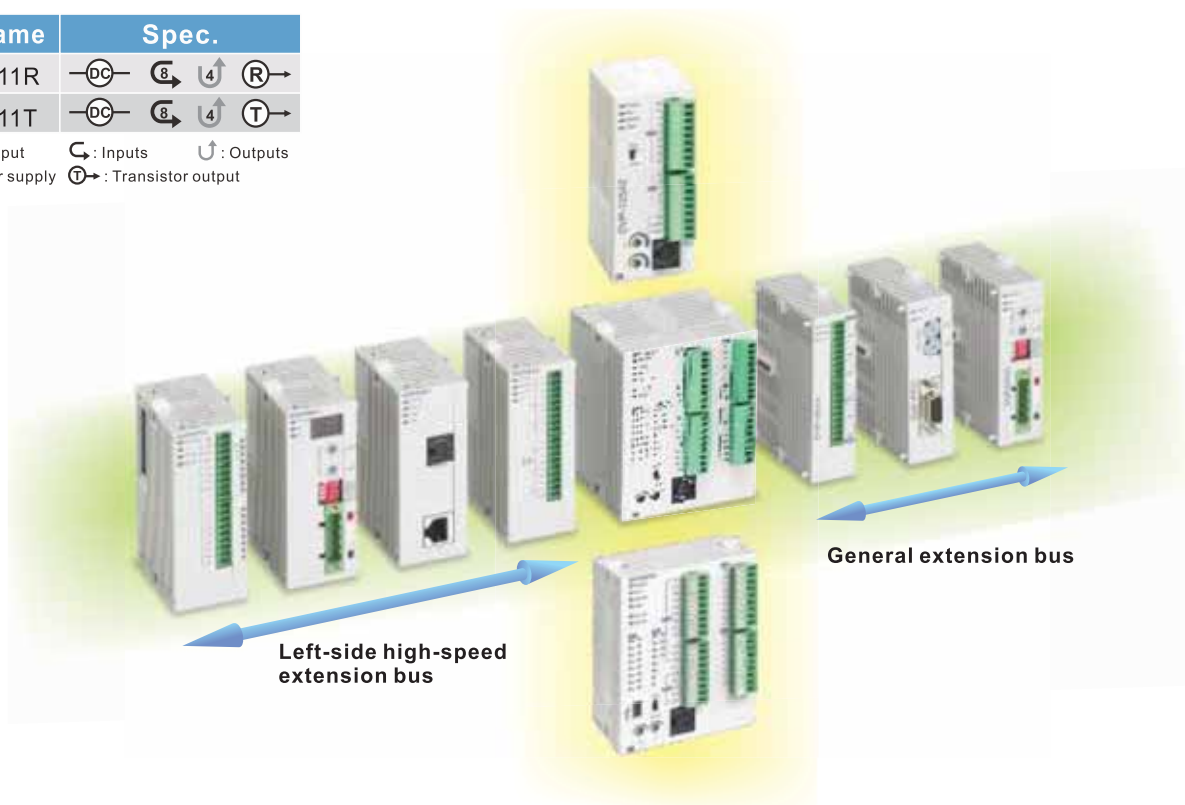
DVP-SE

Network Type Advanced Slim PLC



Model name	Spec.
DVP12SE11R	—DC— 8 4 (R)→
DVP12SE11T	—DC— 8 4 (T)→

(R)→: Relay output C→: Inputs U↑: Outputs
 —DC—: DC power supply (T)→: Transistor output



Extension Modules

Left-Side High-Speed Extension Modules

Network Modules

- **DeviceNet Master**
DVDPNET-SL
- **CANopen Master**
DVPCOPM-SL



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



- **RS-485/RS-422 Serial Communication Module**
DVPSCM12-SL
- **BACnet MS/TP Slave Serial Communication Module**
DVPSCM52-SL



Analog Function Extension

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



Load Cell/Tension Control

- **Load Cell Module**
DVP01LC-SL
DVP02LC-SL



General Extension Modules

I/O Point Extension

- **Input Point Extension**
DVP08SM11N
DVP16SM11N



- **Output Point Extension**
DVP06SN11R
DVP08SN11R/T
DVP08SN11TS^{*1}
DVP16SN11T
DVP16SN11TS^{*1}



- **Input/Output Point Extension**
DVP08SP11R/T
DVP08SP11TS^{*1}
DVP16SP11R/T
DVP16SP11TS



- **Pin Header Input**
DVP32SM11N



- **Pin Header Output**
DVP32SN11TN



- **Digital Switch**
DVP08ST11N



Analog Function Extension

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



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



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



Temperature Measurement

- **Sensor : PT100**
DVP04PT-S



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



Motion Control

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



Communication Modules

- **PROFIBUS Slave**
DVPPF01-S
- **DeviceNet Slave**
DVPDT01-S



Power Supply Modules

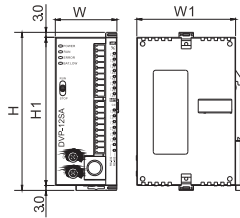
- DVPPS01
- DVPPS02
- DVPPS05



*1. Contact your sales representative for the official launch date of the left-side high-speed extension modules.
2. DVP32EH00R3-L & DVP32EH00T3-L are also compatible with the left-side high-speed extension modules.

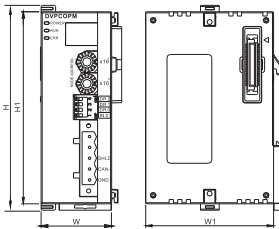
SE/SX/SS2/SA2 Series PLC

Model name (mm)	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



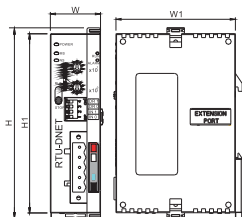
Left-Side High-Speed Extension Modules

Model name (mm)	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



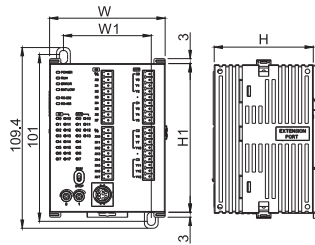
Remote I/O Modules

Model name (mm)	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-PT01	96	90	25.2	60



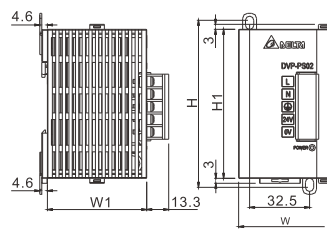
SV/SV2/SX2/MC Series PLC

Model name (mm)	H	H1	W	W1
DVP28SV11R/T	60	90	70	53.2
DVP28SV11R2/T2	60	90	70	53.2
DVP20SX211R/T/S	60	90	70	53.2
DVP10MC11T	60	90	70	53.2



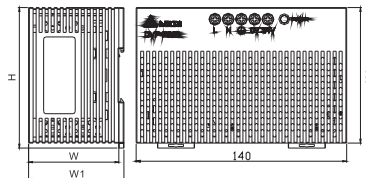
PS01/02 Power Supply Modules

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



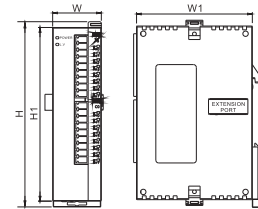
PS05 Power Supply Modules

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

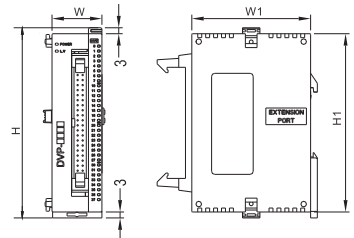


S Series IO & Extension Modules

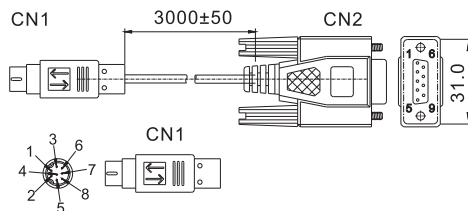
Model name (mm)	H	H1	W	W1
DVP08SM11N	96	90	25.2	60
DVP06SN11R	96	90	25.2	60
DVP08SN11R/T	96	90	25.2	60
DVP08SP11R/T	96	90	25.2	60
DVP16SP11R/T	96	90	25.2	60
DVP16SN11T	96	90	25.2	60
DVP08SP11TS	96	90	25.2	60
DVP08SN11TS	96	90	25.2	60
DVP16SN11TS	96	90	25.2	60
DVP04AD-S	96	90	25.2	60
DVP06AD-S	96	90	25.2	60
DVP02DA-S	96	90	25.2	60
DVP04DA-S	96	90	25.2	60
DVP06XA-S	96	90	25.2	60
DVP04PT-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 (mm)	H	H1	W	W1
DVP32SN11TN	96	90	25.2	60
DVP32SM11N	96	90	25.2	60



PIN Definition of DVPACAB2A30











PC/HMI COM Port 9 PIN D-SUB female				PLC COM1 Port 8 PIN MINI DIN			
Tx	3	↔	4	Rx	2	↔	1
Rx	2	↔	5	Tx	5	↔	3
GND	5	↔	8	GND	8	↔	6
1	7	↔	1,2	5V	7	↔	8
4	8	↔				↔	
6							



Unit: mm

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	 
	24VDC	Transistor	16	12	DVP28SV11T2	
	24VDC	Transistor(PNP)	16	12	DVP28SV11S2	
SV series functional PLC	24VDC	Relay	16	12	DVP28SV11R	
	24VDC	Transistor	16	12	DVP28SV11T	
Execution time of basic instructions			0.24μs			
Product name	Power supply	Output method	Inputs	Outputs	Model name	Certificates
SS2 series standard PLC	24VDC	Relay	8	6	DVP14SS211R	 
	24VDC	Transistor	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		0.35μs		Execution time of MOV instruction		3.4μs
Product name	Power supply	Output method	Inputs	Outputs	Model name	Certificates
SE network PLC	24VDC	Relay	8	4	DVP12SE11R	 
	24VDC	Transistor	8	4	DVP12SE11T	
Fastest execution time of basic instructions		0.64μs		Execution time of MOV instruction		2μs
Product name	Power supply	Output method	Inputs	Outputs	Model name	Certificates
SX series analog PLC	24VDC	Relay	4 (2AI)	2 (2AO)	DVP10SX11R	 
	24VDC	Transistor	4 (2AI)	2 (2AO)	DVP10SX11T	
SX series analog PLC		3.8μs		Execution time of MOV instruction		5.04μs

S Series Digital/Analog Module

Product name	Output method	Inputs	Outputs	Model name	Certificates
Digital module	Relay	-	6	DVP06SN11R	 
	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, Latched connector	-	32	DVP32SN11TN		
Latched connector	-	32	DVP32SM11N		
Analog I/O module	<ul style="list-style-type: none"> 4 points of analog input voltage (-10V~+10V)/current (-20mA~+20mA) *1 Input resolution: 14-bit Built-in RS-485 interface 			DVP04AD-S	
	<ul style="list-style-type: none"> 4 points of analog input voltage (0V~+10V)/current (0mA~+20mA) *1 Resolution: 12-bit Built-in RS-485 interface 			DVP04DA-S	
	<ul style="list-style-type: none"> 2 points of analog input voltage (0V~+10V)/current (0mA~+20mA) *1 Resolution: 12-bit Built-in RS-485 interface 			DVP02DA-S	
	<ul style="list-style-type: none"> 6 points of analog input voltage (-10V~+10V)/current (-20mA~+20mA) *1 Input resolution: 14-bit Built-in RS-485 interface 			DVP06AD-S	
	<ul style="list-style-type: none"> Analog input+output module (6 points) 4 points of analog input voltage (-10V~+10V)/current (-20mA~+20mA) 2 points of analog input voltage (0V~+10V)/current (0mA~+20mA) Resolution: 12-bit Built-in RS-485 interface 			DVP06XA-S	



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

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

Product name	Description	Model name	國際規格
Left-side high-speed analog I/O module	<ul style="list-style-type: none"> 4 groups of analog input *1 Signal range: 1~5 V, 0~5 V, -5~5V, 0~10 V, -10~10 V, 4~20mA, 0~20mA, -20~20mA Resolution: 16-bit Single channel On/Off setup enhances entire conversion efficiency Conversion time: 250µs/point Off-line alarm (1~5 V, 4~20mA) 	DVP04AD-SL	 
	<ul style="list-style-type: none"> 4 groups of analog input *1 Signal range: 0~10 V, -10~10 V, 4~20mA, 0~20mA Resolution: 16-bit Offers single channel On/Off setup Conversion time: 250µs/point 	DVP04DA-SL	
Left-side high-speed load cell module	<ul style="list-style-type: none"> Supports 2 channel of load cell signal input*1 Resolution: 20-bit Connectable to 4-wire/6-wire load cell sensor Measurable range: 0~6mV/V 	DVP02LC-SL	
	<ul style="list-style-type: none"> Supports 1 channel of load cell signal input*1 Resolution: 20-bit Connectable to 4-wire/6-wire load cell sensor Measurable range: 0~6mV/V 	DVP01LC-SL	
Temperature measurement module	<ul style="list-style-type: none"> 4 points of platinum RTD (PT100) sensor input *1 Resolution: 0.1°C Built-in RS-485 interface 	DVP04PT-S	
	<ul style="list-style-type: none"> 4 points of thermocouple (J · K · R · S · T type) sensor input *1 Resolution: 0.1°C Built-in RS-485 interface 	DVP04TC-S	
Positioning module	Servo position control module (single axis, 200kHz)	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, 10/100Mbps	DVPEN01-SL	
	DeviceNet master communication module, 500kbps	DVPDNET-SL	
	CANopen master communication module, 1Mbps	DVPCOPM-SL	
	PROFIBUS DP slave communication module, 12Mbps	DVPPF02-SL	
	RS-485/RS-422, serial communication module, 460kbps	DVPSCM12-SL	
	BACnet MS/TP Slave communication module, 460kbps	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	

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

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-485/422 isolated converter	IFD8500	
	RS-485 to RS-422 isolated repeater	IFD8510	
	RS-485/422 to RS-232 addressable isolated converter	IFD8520	