

# Specifications

## Electrical Specifications

	AC	DC
<b>Power Supply Voltage</b>	100 ~ 240 V <sub>AC</sub> (-15% ~ 10%), 50/60Hz ±5%	24 V <sub>DC</sub> (-15% ~ 20%)
<b>Fuse Capacity</b>	2A/250 V <sub>AC</sub>	ES: 2A/250 V <sub>AC</sub> ; SV: 2.5A/30 V <sub>DC</sub>
<b>Spike Voltage Durability</b>	1500 V <sub>AC</sub> (Primary-secondary); 1500 V <sub>AC</sub> (Primary-PE); 500 V <sub>AC</sub> (Secondary-PE)	
<b>Insulation Impedance</b>	> 5 MΩ (all I/O point-to-ground: 500 V <sub>DC</sub> )	
<b>Noise Immunity</b>	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	
<b>Earth</b>	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.)	
<b>Storage/Operation</b>	Storage: -25°C ~ 70°C (temperature); 5% ~ 95% (humidity) Operation: 0°C ~ 55°C (temperature); 5% ~ 95% (humidity); pollution degree 2	

## Input Specifications <sup>\*1</sup>

Max. Input Frequency	10 kHz	20 kHz	100 kHz	200 kHz	
<b>Input Signal Type</b>	NPN (Sink)/PNP (Source)				
<b>Input Signal Voltage</b>	24 V <sub>DC</sub> ±10% (5 mA)				
<b>Response time <sup>*2</sup></b>	<b>DVP-EH3/SV2/PM</b>	OFF→ON: 20 μs ON→OFF: 50 μs	ES/EX/SX/SS2/SX2 OFF→ON: 3.5 μs ON→OFF: 20 μs	ES2/EX2/SA2/SX2 OFF ON: 2.5 μs ON→OFF: 5 μs	ES3/EH3/SV2/PM OFF→ON: 0.15 μs ON→OFF: 3 μs
	<b>DVP-ES3/ES2/EX2</b>				
	<b>DVP-ES/EX</b>				
	<b>DVP-SX</b>				
	<b>DVP-SS2</b>				
	<b>DVP-SA2/SX2/SE</b>				

\*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 <sup>\*1</sup>

	Relay-R	Transistor-T		
		General-speed	High-speed	
<b>Max. Exchange (working) Frequency</b>	1Hz <sup>*2</sup>	10 kHz	100 kHz	200 kHz
<b>Current spec.</b>	<b>DVP-EH3/SV2/PM</b>	0.3A/point @40°C	SA2/SX2/ES2/EX2/SE Resistive: 0.5A/point (4A/COM) Conductive: 12 W (24 V <sub>DC</sub> ) Light bulb: 2 W (24 V <sub>DC</sub> )	ES3/EH3/SV2/PM Resistive: 0.5A/point (4A/COM) Conductive: 12 W (24 V <sub>DC</sub> ) Light bulb: 2 W (24 V <sub>DC</sub> )
	<b>DVP-ES3/ES2/EX2</b>			
	<b>DVP-ES/EX</b>			
	<b>DVP-SX</b>			
	<b>DVP-SS2/SA2/SX2/SE</b>			
<b>Voltage Spec.</b>	250 V <sub>AC</sub> /30 V <sub>DC</sub>	30 V <sub>DC</sub>		
<b>Response Time</b>	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.

# DVP Series Model Name Instructions

**• PLC**

Series ① ② ③ ④ ⑤

- Total I/O**
- Model**  
 ES/ES2/ES3: DVP-ES/ES2/ES3 series PLC  
 EX/EX2: DVP-EX/EX2 series PLC  
 SS/SS2: DVP-SS/SS2 series PLC  
 SA/SA2: DVP-SA/SA2 series PLC  
 SX/SX2: DVP-SX/SX2 series PLC  
 SC: DVP-SC series PLC  
 SV: DVP-SV series PLC  
 SE: DVP-SE series PLC  
 PM: DVP-PM series PLC  
 MC: DVP-MC series PLC  
 EH: DVP-EH series PLC  
 EC: DVP-EC series PLC
- Power supply**  
 00: AC power input  
 11: DC power input
- 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
- Version**

**• PI/PO Module**

Series ① ② ③

- Total I/O**
- Module function**  
 HC: High-speed counter  
 PU: Single-axis positioning module
- Compatible model**  
 S: DVP-SS/SA/SX/SC/SV/SS2/SA2/SX2/SV2/SE/MC Series PLC  
 H2/H3: DVP-EH2/EH3/PM Series PLC  
 SL: left-side extension for DVP-S Series PLC

**• Remote I/O**

Series ①

- Type**  
 DNET: DeviceNet  
 485: RS-485  
 EN01: Modbus TCP

**• DI/DO Module**

Series ① ② ③ ④ ⑤

- Total I/O**
- Model**  
 X: DVP-ES/EX/ES2/EX2 series PLC  
 S: DVP-SS/SA/SX/SC/SV/SS2/SA2/SX2/SV2/SE/MC series PLC  
 H: DVP-EH2/EH3/PM series PLC
- I/O type**  
 M: Input point  
 N: Output point  
 P: Input + output
- Power supply**  
 00: AC power input  
 11: DC power input
- Output type**  
 R: Relay  
 T: Transistor (NPN)  
 TS: Transistor (PNP)  
 N: None output

**• Function Card**

Series ① ② ③

- Function Card**
- Function**  
 232: RS-232 card  
 422: RS-422 card  
 485: RS-485 card  
 2AD: 2ch analog input  
 2DA: 2ch analog output
- Particular definition**  
 S: Slave mode  
 (applicable to COM3 coding only)

**• Accessory: Cable**

Series ① ② ③ ④

- Accessory**
- Accessory definition**  
 CAB: Cable
- Type**  
 1, 2, 3, 4, .....
- Cable length**  
 15: 1.5 m  
 30: 3.0 m

**• AI/AO Module**

Series ① ② ③

- Total I/O**
- Module function**  
 AD: Analog/digital conversion  
 DA: Digital/analog conversion  
 PT: PT type temperature module  
 TC: Thermocouple type temperature Module  
 XA: AD + DA module  
 LC: Load cell module  
 RC: Resolver module
- Compatible model**  
 S or S2: DVP-SS/SA/SX/SC/SV/SS2/SA2/SX2/SV2/SE/MC Series PLC  
 SL: left-side extension for DVP-S Series PLC  
 E2: DVP-ES2/EX2 Series PLC

**• Network Module**

Series ① ②

- Module function**  
 EN01: Modbus TCP  
 DNET: DeviceNet master  
 COPM: CANopen master  
 CP02: CANopen Slave  
 DT01/02: DeviceNet Slave  
 PF01/02: PROFIBUS DP Slave
- Compatible model**  
 S: DVP-SS/SA/SX/SC/SV/SS2/SA2/SX2/SV2/SE/MC Series PLC  
 H2/H3: DVP-EH2/EH3/PM Series PLC  
 SL: left-side extension for DVP-S Series PLC

**• Accessory: Other**

Series ① ② ③

- Accessory**
- Accessory definition**  
 Bt: Battery
- Type: 01, 02 .....**

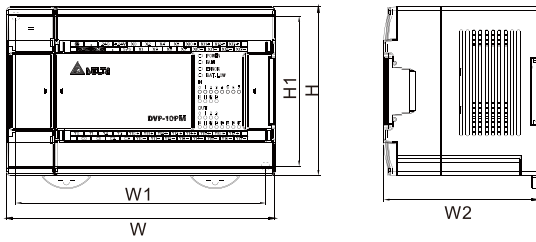
\*For the availability of the product models, please contact Delta sales representatives or

ue.

# Dimensions (unit: mm)

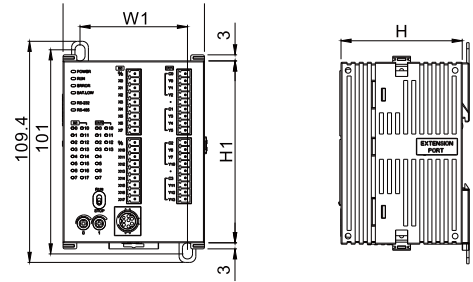
## DVP-PM Series

Model Name (mm)	H	H1	W	W1	W2
DVP20PM00D	90	80	174	164	82
DVP20PM00M	90	80	174	164	82
DVP10PM00M	90	80	143.5	133.5	82

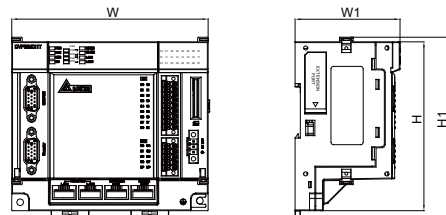


## DVP-MC Series

Model Name (mm)	H	H1	W	W1
DVP10MC11T	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	110	116.2	128	68.4
DVP50MC11T-06	110	116.2	128	68.4




# Ordering Information

## DVP-PM Series

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
Standard Motion Controller	100~240V <sub>AC</sub>	Differential	16	16	DVP10PM00M	
		(Built-in 4-axis of independent 1MHz pulse output)				
Advanced Motion Controller	100~240V <sub>AC</sub>	Differential	8	8	DVP20PM00DT	
		(Built-in 2-axis of independent 500 kHz pulse output)			DVP20PM00D	
		(Built-in 3-axis of independent 500 kHz pulse output)			DVP20PM00M	
Extension Module		Description			Model Name	
DVP-PM communication card		Ethernet/CANopen communication card			DVP-FPMC	
Execution time of basic instructions		0.13 μs		Execution time of MOV instruction		3.74 μs

## DVP-MC Series

Product Name	Power Supply	Communication Protocol	Axes Controlled	Inputs	Outputs	Model Name	Certificates
Multi-axis Motion Controller	24V <sub>DC</sub>	CANopen DS402	16	8	4	DVP10MC11T	
			24	16	8	DVP15MC11T <b>New</b>	
			6	16	8	DVP15MC11T-06 <b>New</b>	
		EtherCAT	24	16	8	DVP50MC11T <b>New</b>	
			6	16	8	DVP50MC11T-06 <b>New</b>	