

Standard PLC DVP-ES3 / ES2 / EX2 Series and Extension Modules

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DVP-ES3/ES2

Model Name	Specifications
DVP16ES200R	⊖ 8 8 R
DVP16ES200T	⊖ 8 8 T
DVP20ES200RE	⊖ 12 8 R E
DVP20ES200TE	⊖ 12 8 T E
DVP24ES200R	⊖ 16 8 R
DVP24ES200T	⊖ 16 8 T
DVP32ES200R	⊖ 16 16 R
DVP32ES200T	⊖ 16 16 T
DVP32ES211T	⊖ DC 16 16 T
DVP32ES200RC	⊖ 16 16 R C
DVP32ES200TC	⊖ 16 16 T C
DVP32ES200RE	⊖ 16 16 R E
DVP32ES200TE	⊖ 16 16 T E
DVP32ES311T ^{New}	⊖ DC 16 16 T C E
DVP40ES200R	⊖ 24 16 R
DVP40ES200T	⊖ 24 16 T
DVP40ES200RE	⊖ 24 16 R E
DVP40ES200TE	⊖ 24 16 T E
DVP60ES200R	⊖ 36 24 R
DVP60ES200T	⊖ 36 24 T
DVP60ES200RE	⊖ 36 24 R E
DVP60ES200TE	⊖ 36 24 T E
DVP80ES200R	⊖ 40 40 R
DVP80ES200T	⊖ 40 40 T

⊖ AC power supply ↻ Inputs T Transistor output E Ethernet
 ⊖ DC power supply ↻ Outputs R Relay output C CANopen

DVP-EX2

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

⊖ AC power supply ↻ Inputs T Transistor output
 ⊖ DC power supply ↻ Outputs R Relay output

Digital I/O Modules

■ **Input Point Extension**
 DVP08XM211N
 DVP16XM211N

■ **Output Point Extension**
 DVP08XN211R/T
 DVP16XN211R/T
 DVP24XN200R/T

■ **Input/Output Point Extension**
 DVP08XP211R/T
 DVP16XP211R/T
 DVP24XP200R/T
 DVP32XP200R/T



Analog I/O Modules

■ **Input Point Extension**
 DVP04AD-E2

■ **Output Point Extension**
 DVP04DA-E2
 DVP02DA-E2

■ **Input/Output Point Extension**
 DVP06XA-E2



Temperature Measurement Modules

DVP04PT-E2

DVP06PT-E2

DVP04TC-E2



Resolver Modules

DVP10RC-E2^{*1}



DVP-ES2 Series Extension Cable Modules

DVPAEXT01-E2



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

Specifications

Electrical Specifications

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

Input Specifications^{*1}

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

*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-EH3/SV2/PM	0.3A/point @40°C	SA2/SX2/ES2/EX2/SE Resistive: 0.5A/point (4A/COM) Conductive: 12 W (24 V _{DC}) Light bulb: 2 W (24 V _{DC})	ES3/EH3/SV2/PM Resistive: 0.5A/point (4A/COM) Conductive: 12 W (24 V _{DC}) Light bulb: 2 W (24 V _{DC})
	DVP-ES3/ES2/EX2			
	DVP-ES/EX			
	DVP-SX			
	DVP-SS2/SA2/SX2/SE			
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

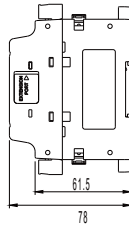
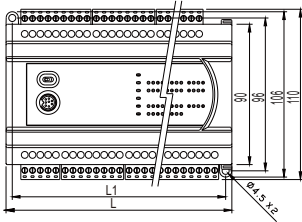
*1. For more detailed specifications, see the "Specification" section in the instruction sheet of each model.

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

Dimensions (unit: mm)

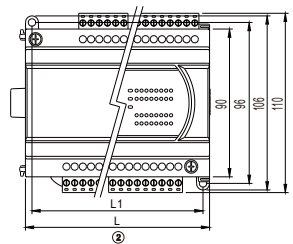
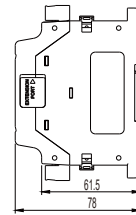
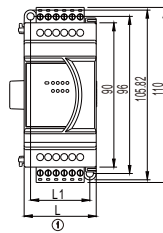
DVP-ES3/ES2/EX2 Series

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
DVP32ES311T New	165	157



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 New	70	62	②
DVP04TC-E2	70	62	②
DVP10RC-E2	70	62	②



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.

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

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

*3: In addition to the built-in 4 channels of high-speed counters, the DVP-EH3 Series can connect high-speed counter modules

Ordering Information



DVP-ES3/ES2/EX2 Series PLC

Product Name	Power Supply	Output Method	Inputs	Outputs	Model Name	Certificates
DVP-ES3 Series <small>New</small> Standard PLC	24 V _{DC}	Transistor	16	16	DVP32ES311T ^{*2}	 
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-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

*2: Please contact our distributors for release date

DVP-ES3/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	 
	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/ES2/EX2 Series Digital/Analog/Special Module (24V_{DC})

Product Name	Output Method	Inputs	Outputs	Model Name	Certificates
Digital Module	-	8	-	DVP08XM211N	
	Relay	-	8	DVP08XN211R	
	Transistor	-	8	DVP08XN211T	
	Relay	4	4	DVP08XP211R	
	Transistor	4	4	DVP08XP211T	
	-	16	-	DVP16XM211N	
	Relay	-	16	DVP16XN211R	
	Transistor	-	16	DVP16XN211T	
	Relay	8	8	DVP16XP211R	
Transistor	8	8	DVP16XP211T		
Analog I/O Module	<ul style="list-style-type: none"> • 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) 			DVP04AD-E2	 
	<ul style="list-style-type: none"> • 4 points of analog voltage (-10V~+10V)/current (0~20 mA, 4~20 mA) output^{*1} • Resolution: 14-bit (-32,000~+32,000)/(0~+32,000) 			DVP04DA-E2	
	<ul style="list-style-type: none"> • 2 points of analog voltage (-10V~+10V)/current (0~20 mA, 4~20 mA) output ^{*1} • Resolution: 14-bit (-32,000~+32,000)/(0~+32,000) 			DVP02DA-E2	
	<ul style="list-style-type: none"> • 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 (-10V~+10V)/current (0~20 mA, 4~20 mA) output • Output resolution: 14-bit (-32,000~+32,000)/(0~+32,000) 			DVP06XA-E2	
Temperature Measurement Module	<ul style="list-style-type: none"> • 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	
	<ul style="list-style-type: none"> • 6 points of platinum RTD (Pt100, Pt1000, Ni100, Ni1000) sensor input/0~300Ω resistance input ^{*1} • Resolution: 16-bit • With PID temperature control 			New DVP06PT-E2 ^{*2}	
	<ul style="list-style-type: none"> • 4 points of thermocouple (J, K, R, S, T, E, N Type) sensor input/-80mV~+80mV voltage input ^{*1} • Resolution: 20-bit • With PID temperature control 			DVP04TC-E2	
Absolute Resolver Module	<ul style="list-style-type: none"> • Converts 1 set of resolver input signal (angle/speed) into digital signals • Resolution: 12-bit • Supports disconnection detection for distance up to 50m 			DVP10RC-E2	
Extension module	<ul style="list-style-type: none"> • 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.

*2. Please contact our distributors for release date