

Programmable logic controllers (PLCs)

Delta high-performance, high-speed DVP series PLCs are most efficient and incorporate communication capabilities. Advantages include numerous built-in convenient commands for easy operation access and communication function monitoring.

The module-type unit affords tremendous space-saving, allowing simple, clip-on expansion possibilities. The PLCs high performance and extensive I/O units represent a high-value solution for machine control and industrial automation.

Common characteristics

- compact dimensions (H) 90 mm x (D) 60 mm DIN-rail mounting
- built-in high speed counters 20-200 kHz (model dependant)
- clip-on extension modules – general (right side), high-speed (left side) (model dependant)
- plug-in terminals for ease of wiring and maintenance
- dual communication ports RS-232 and RS-485 MODBUS ASCII/RTU
- program language: (IL) instruction list, (LD) ladder diagram, (SFC) sequential function chart.
- 24 Vdc supply



DVP14SS



DVP12SA2



DVP20SX2



DVP28SV

type	supply	input (DI)	outputs (DO)	output types
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SS2 series "standard" MPU compact ultra-slim (25.2 mm wide)

- MPU points: 14 points (8DI + 6DO) expandable to 480 points
- program capacity: 8k steps
- built-in RS-232 and RS-485 com ports compatible with MODBUS ASCII/RTU protocol
- high speed pulse outputs, supports 4 x (Y0 - Y3) max. 10kHz
- built-in high speed counters 20kHz
- supports PID auto tuning

DVP14SS211R	24 Vdc	8	6	relay
DVP14SS211T	24 Vdc	8	6	transistor

SA2 series "advanced" MPU compact slim (37.4 mm wide)

- MPU points: 12 points (8DI + 4DO) expandable to 480 points
- program capacity: 16k steps
- built-in RS-232 and 2 x RS-485 com ports compatible with MODBUS ASCII/RTU protocol
- high-speed pulse outputs, supports 2 x (Y0, Y2) 100kHz and 2 x (Y1, Y3) 10kHz
- built-in high-speed counters 100kHz
- accepts (left side) high-speed expansion interfaces
- built-in RTC (real time clock)
- supports PLC-Link (max. speed:921 kbps)

DVP12SA211R	24 Vdc	8	4	relay
DVP12SA211T	24 Vdc	8	4	transistor

SX2 series "analogue" MPU compact (70 mm wide)

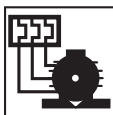
- MPU points: 20 points (8DI/6DO, 4AI/2AO) expandable to 480 points
- program capacity: 16k steps
- built-in RS-232 and 1 x RS-485 COM ports compatible with MODBUS ASCII/RTU protocol
- high-speed pulse outputs, supports 2 x (Y0, Y2) 100kHz and 2 x (Y1, Y3) 10kHz
- built-in high-speed counters 100kHz/supports linear/arc interpolation
- 4 analogue inputs / 2 analogue outputs (-20 to 20mA, -10 to 10V, 4 to 20mA)
- accepts (left side) high-speed expansion interfaces
- supports PLC-Link (max. speed:921 kbps)
- built-in USB communication port

		digital		analogue		
		digital	analogue	digital	analogue	
DVP20SX211R	24 Vdc	8	4	6	2	relay
DVP20SX211T	24 Vdc	8	4	6	2	transistor (NPN)
DVP20SX211S	24 Vdc	8	4	6	2	transistor (PNP)

28SV series "high performance" MPU compact (70 mm wide)

- MPU points: 28 points (16DI + 12DO) expandable to 512 points
- program capacity: 16k steps
- instruction execution speed : 0.24μs (basic instruction)
- data register: 10k word file register
- built-in RS-232 and RS-485 COM ports compatible with MODBUS ASCII/RTU protocol
- high-speed pulse outputs, supports 2 x (Y0,Y1) (Y2,Y3) 200kHz and 2 x (Y4,Y6) 200kHz
- four built-in high-speed counters 200 kHz.
- accepts (left side) high-speed expansion interfaces
- supports linear/arc interpolation

DVP28SV11R	24 Vdc	16	12	relay
DVP28SV11T	24 Vdc	16	12	transistor



Extension modules and accessories



DVP08SM



DVP04DA



DVP04PT



DVP02LC



DVPEN01



DVPPS01



DVP08ST11N

Digital I/O extension modules (clip-on to SS2/SA2/SX2/SV MPUs)

type	supply	input (DI)	outputs (DO)	output type
DVP08SM11N	24 Vdc	8	—	—
DVP16SM11N	24 Vdc	16	—	—
DVP32SM11N*	24 Vdc	32	—	—
DVP06SN11R	24 Vdc	—	6 (max. 6A)	relay
DVP08SN11R	24 Vdc	—	8 (max. 1.2A)	relay
DVP08SN11T	24 Vdc	—	8	transistor
DVP16SN11T	24 Vdc	—	16	transistor
DVP32SN11TN*	24 Vdc	—	32	transistor

* pin head termination. Requires cable and terminal block (see accessories below)

DVP08SP11R	24 Vdc	4	4	relay
DVP16SP11R	24 Vdc	8	8	relay
DVP08SP11T	24 Vdc	4	4	transistor
DVP16SP11T	24 Vdc	8	8	transistor
DVP16SP11TS	24 Vdc	8	8 (PNP type)	transistor

Analogue I/O extension modules

		(AI)	(AO)	
DVP04ADS	24 Vdc	4	—	analogue
DVP06ADS	24 Vdc	6	—	analogue
DVP02DAS	24 Vdc	—	2	analogue
DVP04DAS	24 Vdc	—	4	analogue
DVP06XAS	24 Vdc	4	2	analogue

Temperature measurement modules

DVP04PTS	24 Vdc	4	PT100 temperature module
DVP04TCS	24 Vdc	4	thermocouple type (J,K,R,S,T)

Motion control modules

DVP01PUS	single-axis	positioning/motion control module
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Communication modules

DVPDT01S	DeviceNet	communication module	slave
DVPPF01S	Profibus	communication module	slave

High-speed expansion modules for SA2/SX2/SV (left side mounting)

DVP04ADSL	24 Vdc	4	—	16-bit res.	analogue
DVP04DASL	24 Vdc	—	4	16-bit res.	analogue
DVP02LCSL	24 Vdc			load cell module	
DVPPF02SL	Profibus			communication module	slave
DVPDNETSL	DeviceNet			communication module	(master)
DVPCOPMSL	CANopen			communication module	(master)
DVPEN01SL	Ethernet	(MODBUS TCP/IP)		communication module	
DVPSCM12SL				serial communication solution	

Power supply module (DIN-rail mounting)

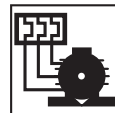
DVPPS01	100-240 Vac to 24 Vdc	1A power supply module
DVPPS02	100-240 Vac to 24 Vdc	2A power supply module

Accessories

DVP08ST11N	input point switch module for DVP-S series	
DVPPCC01	program-data backup/copy module for all DVP series	
DVPACAB2A30	program upload/download cable, PC<->PLC (9 PIN D-SUB)	(3 meter)
DVPACAB7A10	connection cable for	DVP32SM11N (1 meter)
DVPAETBID32A	terminal board (32 points) for	DVP32SM11N
DVPACAB7B10	connection cable for	DVP32SN11TN (1 meter)
DVPAETBOR16A	terminal board (16 points), relay out for	DVP32SN11TN (2 required)

Software (MS-Windows based) easy to learn and use with provided "help" file

ISP SOFT	programming software for SS2/SA2/SX2/SV (or freely downloadable via internet)	(CD)
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Programmable logic controllers (PLCs)



DVP16ES



DVP32ES



DVP20EX



DVP16XP2



DVP24XN

ES2 series PLCs are compact highly efficient, functional instruments with incorporated communication capabilities. Advantages such as built-in convenient commands offer easy access to operation and communication function monitoring.

- MPU I/O points: 16, 20, 24, 32, 40, 60 points
- expandable (with plug-in extension modules) up to max. 256 points
- program capacity: 16k steps / execution speed: 0.54μs
- data register: 10k words
- three built-in COM ports – 1x RS-232 and 2x RS-485 ports, Modbus ASCII/RTU protocol compatible (can be master or slave)
- eight built-in high-speed input points (2 for 100 kHz, 6 for 10 kHz)
- supports UFO, UID Dir, CW/CCW, AIB, counting modes
- four built-in high-speed pulse output points (2 for 100 kHz, 2 for 10 kHz);
- supports pulse, pulse DIR, AIB, CW/CCW modes
- emerging industry application: exclusive instruction and function blocks for PV solar tracking
- handy frequency inverter instructions for controlling Delta motor drives
- compact: (H) 110 x (D) 78 x (W) 16:105 / 24:125 / 32:145 / 40:165 / 60:225 (mm)

ES2 series standard MPU 100-240V AC

- MPU I/O 14,20,24,32,40,60 points (extendable to 256 points)
- cost effective / plug-in termination
- DIN rail mounting or chassis mount

type	supply (-15%+10%)	input (DI)	outputs (DO)	output types
DVP16ES200R	100-240 Vac	8	8	relay
DVP24ES200R	100-240 Vac	16	8	relay
DVP32ES200R	100-240 Vac	16	16	relay
DVP40ES200R	100-240 Vac	24	16	relay
DVP60ES200R	100-240 Vac	36	24	relay

Transistor output

DVP16ES200T	100-240 Vac	8	8	transistor
DVP24ES200T	100-240 Vac	16	8	transistor
DVP32ES200T	100-240 Vac	16	16	transistor
DVP40ES200T	100-240 Vac	24	16	transistor
DVP60ES200T	100-240 Vac	36	24	transistor

EX2 special function MPU - digital and analogue (+/- 10V or +/- 20mA) inputs and outputs

		digital		analogue		
DVP20EX200R	100-240 Vac	8	4	6	2	relay
DVP20EX200T	100-240 Vac	8	4	6	2	transistor

I/O extension modules for ES2/EX2 series – 24V DC supply

- 24 Vdc supply derived from MPU (limited to 12 W)
- plugs into right side of MPU

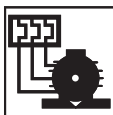
Digital input modules

DVP08XM211N	24 Vdc	8	—	—
DVP16XM211N	24 Vdc	16	—	—
DVP08XN211R	24 Vdc	—	8	relay
DVP16XN211R	24 Vdc	—	16	relay
DVP08XP211R	24 Vdc	4	4	relay
DVP16XP211R	24 Vdc	8	8	relay
DVP08XN211T	24 Vdc	—	8	transistor
DVP16XN211T	24 Vdc	—	16	transistor
DVP08XP211T	24 Vdc	4	4	transistor
DVP16XP211T	24 Vdc	8	8	transistor

I/O extension modules for ES2/EX2 series – 230 Vac power supply required

- output supply for other DC modules 24 Vdc 100 mA (2.4 W)

DVP24XN200R	100-240 Vac	—	24	relay
DVP24XP200R	100-240 Vac	16	8	relay
DVP32XP200R	100-240 Vac	16	16	relay
DVP24XN200T	100-240 Vac	—	24	transistor
DVP24XP200T	100-240 Vac	16	8	transistor
DVP32XP200T	100-240 Vac	16	16	transistor



Programmable logic controllers (PLCs)



DVP04AD



DVP06XA



DVP04PT



DVP16EC



DVP-PPCC01

Analogue extension modules for ES2/EX2 series

- voltage (± 10 V, ± 5 V) / current (± 20 mA, 0-20 mA, 4-20 mA) inputs and/or outputs
- resolution: 14-bit ($-32000 \sim +32000$) / ($0 \sim +32000$) DVP02/04DA
- digital / analogue photocoupler isolation (not between channels)

		analogue inputs	analogue outputs	
DVP04ADE2	24 Vdc	4	—	analogue/inputs
DVP02DAE2	24 Vdc	—	2	analogue/outputs
DVP04DAE2	24 Vdc	—	4	analogue/outputs
DVP06XAE2	24 Vdc	4	2	analogue I/O

Temperature measurement modules for ES2/EX2 series

type	supply	description
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4 points platinum RTD resistance

- resolution: 16-bit
- digital/analogue photocoupler isolation (not between channels)
- built-in PID temperature control

DVP04PTE2	24 Vdc	4 points resistance (Pt 100, Pt 1000, Ni 100/1000)
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Temperature sensor input: 0-300 Ω resistance input

4 points of thermocouple (J, K, R, S, T, E, N type)

- resolution: 16-bit
- digital/analogue photocoupler isolation (also between channels)
- built-in PID control

DVP04TCE2	24 Vdc	4 points of thermocouple (J, K, R, S, T, E, N type)
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Temperature sensor input: -80 mV~+80 mV voltage input

DVP-EC 3 series econo PLC 100-240Vac

EC-3 series is the most economical solution for sequential control and communication monitoring for small PLCs

- MPU I/O points: 10/14/16/24 points (not expandable)
- program capacity: 4K steps
- COM ports: built-in RS-232 port (RS-485 port for EC16 and EC24)
- high-speed pulse output (max. 11 kHz pulse output)
- built-in high speed counters (2x 20/10 kHz, 1x 20 kHz, 1x 4 kHz)
- DIN-rail or chassis mount
- compact: (H) 90 x (D) 45.5 x (W) 10 / 14 / 16:95 24:150 (mm)

type	supply	input (DI)	outputs (DO)	output types
DVP10EC00R3	100-240 Vac	6	4	relay
DVP14EC00R3	100-240 Vac	8	6	relay
DVP16EC00R3	100-240 Vac	8	8	relay
DVP24EC00R3	100-240 Vac	12	12	relay

Accessories for ES2 / EC3 series PLCs

DVPACAB2A30	cable: PC (9-pin D-sub) to PLC (3 meter)
DVPPCC01	program/data copy module for all DVP series

Software (MS-Windows, 2000, XP, Vista, Windows 7 - 32 Bit / 64 Bit)

New programming software: supports ladder diagram, function block and many other programming modes; allows program editing in a modular way; saves time in large project development by allowing repetitive use of already-made function blocks.

ISPsoft	programming software tool (compact disc) (or freely downloadable via internet)
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