DVP14SS...

DVP12SA2...

new

DVP28SA211R

SS2/SA2 series

Delta's high-performance, high-speed DVP series PLCs are the most efficient and incorporates 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

- 32-bit CPU for high-speed processing
- Compact dimensions *(H) 90 mm x (D) 60 mm* - DIN rail mounting
- Built-in high speed counters up to 100 kHz *(model dependant)*
- Clip-on extension modules - general *(right side)* - high speed *(left side)*
- Plug-in terminals for ease of wiring and maintenance
- Program language: (IL) instruction list, (LD) ladder diagram, (SFC) sequential function chart
- Supports Modbus Master. Can connect up to 16 slaves (VFD,Temp controller, PLC)

type	supply	inputs (DI)	outputs (DO)	width (mm)	description	output type

SS2 series - Economic, compact ultra-slim PLC

The DVP-SS2 series slim type PLC provides basic sequential control functions with fast execution speed. Accepts - general *(right side)* expansion modules only.

- 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

High speed functions

- 4 points of 10 kHz pulse output
- 6 x 1phase counters @ 10kHz or 2 x A/B counters @ 20kHz

type	supply	inputs (DI)	outputs (DO)	width (mm)	description	output type
DVP14SS211R	24 VDC	8	6	25.2	compact ultra slim PLC	relay
DVP14SS211T	24 VDC	8	6	25.2	compact ultra slim PLC	transistor (NPN)
DVP12SS211S	24 VDC	8	4	25.2	compact ultra slim PLC	transistor (PNP)

SA2 series - Advanced compact slim PLC

DVP-SA2 series offers larger program capacity and executing efficiency, offering 100 kHz high-speed output and counting functions. Expandable with DVP-S extension modules.

DVP12SA supports general *(right side)* and high speed *(left side)* expansion modules.
DVP28SA supports general expansion modules *(right side)* only.

- 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)*
- Supports standard MODBUS ASCII / RTU protocol and PLC Link function
- No battery required; RTC function operates for up to 15 days after power off

High speed functions

- Supports 2-axis linear and arc interpolation
- 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

type	supply	inputs (DI)	outputs (DO)	width (mm)	description	output type
DVP12SA211R	24 VDC	8	4	37.4	advanced slim PLC	relay
DVP12SA211T	24 VDC	8	4	37.4	advanced slim PLC	transistor (NPN)
DVP28SA211R∗	24 VDC	16	12	46	advanced slim PLC	relay
DVP28SA211T∗	24 VDC	16	12	46	advanced slim PLC	transistor (NPN)

∗ *Right hand side expansion only*

DVP12SE11R

new

DVP26SE11R

DVP28SV...

SE/SV2 series

Common characteristics

- 32-bit CPU for high-speed processing
- Compact dimensions *(H) 90 mm x (D) 60 mm* - DIN rail mounting
- Built-in high speed counters up to 200 kHz *(model dependant)*
- Clip-on extension modules - general *(right side)* - high speed *(left side)*
- Plug-in terminals for ease of wiring and maintenance
- Program language: (IL) instruction list, (LD) ladder diagram, (SFC) sequential function chart
- Supports Modbus Master. Can connect up to 16 slaves *(32 slaves for DVP-SE)*

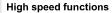| type	supply	inputs (DI)	outputs (DO)	width (mm)	description	output type

SE series - Network type advanced slim PLC

The most complete network type slim PLC in the industry. Typical applications include remote device monitoring, production line monitoring, building automation, printing machine, container filler *(recipe application)*.

DVP12SE supports "general" *(right side)* and "high speed" *(left side)* expansion modules.
DVP26SE only supports "general" *(right side)* expansion modules.

- Program capacity: 16 k steps
- Data register: 12 k words
- Max. execution speed of basic instructions: 0.64 µs
- No battery required; RTC function operates for up to 15 days after power off
- IP Filter functions as firewall as first line protection against malware and network threats
- Built-in mini USB port, 2 x RS-485 and Ethernet port supports MODBUS TCP and EtherNet/IP

- Built-in Ethernet   **DVP12SE:** MODBUS TCP/IP & Ethernet/IP *(adapter mode)*
                        DVP26SE: MODBUS TCP/IP & Ethernet/IP *(adapter mode)*

High speed 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

type	supply	inputs (DI)	outputs (DO)	width (mm)	description	output type
DVP12SE11R	24 VDC	8	4	37.4	network type PLC	relay
DVP12SE11T	24 VDC	8	4	37.4	network type PLC	transistor (NPN)
DVP26SE11R∗	24 VDC	14	12	46	network type PLC	relay
DVP26SE11T∗	24 VDC	14	12	46	network type PLC	transistor (NPN)

∗ *Right hand side expansion only*

SV2 series - "High performance" slim PLC

SV2 series is a high-end PLC providing larger program capacities and data registers for more demanding, complex applications. Increases many motion control instructions to meet high-speed applications, high-precision positioning control for labelling, packaging and printing machines.

- Program capacity: 30 k steps
- Data register: 12 k words
- Max. execution speed of basic instructions: 0.24 µs
- 32-bit CPU + ASIC dual processors

Excellent high speed functions

- High-speed pulse output: 4 axes of 200 kHz pulse output
- Supports 4 hardware 200 kHz high speed counters
- 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

type	supply	inputs (DI)	outputs (DO)	width (mm)	description	output type
DVP28SV11R2	24 VDC	16	12	70	high perform PLC	relay
DVP28SV11T2	24 VDC	16	12	70	high perform PLC	transistor (NPN)
DVP28SV11S2	24 VDC	16	12	70	high perform PLC	transistor (PNP)

DVP10SX11R

DVP20SX2...

DVP10MC11T

PLC starter kit

SX2/MC series

DVP series PLCs for industrial automation applications have been devoted to delivering more innovative products satisfying customer needs while meeting requirements of a wide variety of applications. Delta PLCs offer a broad range of controllers and modules, all featuring high performance, multiple functions with efficient program editing tools. In addition to user-friendly programming software and faster execution speed, they provide complete industry-focused solutions, motion control solutions, and industrial fieldbus solutions.

type	supply	inputs		outputs		width	output
		(DI)	(AI)	(DO)	(AO)	(mm)	type

SX2 series - Analog I/O slim PLC

Compact PLC with outstanding analog functions with highly efficient PID control function.
Supports "general" *(right side)* and "high speed" *(left side)* expansion modules.

- 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 analog inputs and outputs *(12-bit resolution)*
- Built-in mini USB, RS-232 and 2x RS-485 com ports *(Master/Slave)*
- Supports standard MODBUS ASCII/RTU protocol and PLC Link function
- No battery required, maintenance free *(RTC operates for 10 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
- Supports 2-axis linear and arc interpolation

type	supply	(DI)	(AI)	(DO)	(AO)	width (mm)	output type
DVP10SX11R∗	24 VDC	4	2	2	2	37.4	relay
DVP20SX211R	24 VDC	8	4	6	2	70	relay
DVP20SX211T	24 VDC	8	4	6	2	70	transistor (NPN)
DVP20SX211S	24 VDC	8	4	6	2	70	transistor (PNP)

∗ *2 x 7 segment display*

MC series - Multi-axis motion controller

CANopen motion controller

16 axis motion controller offering highly stability multi-axis motion control solutions through high-speed CANopen communication.

Supports "general" *(right side)* and "high speed" *(left side)* expansion modules.

- Built-in CANopen and encoder interface
- High precision control with interpolation function
- Synchronization time: 4 axes in 2ms / 8 axes in 4ms
- Built-in Ethernet, RS-232 and RS-485 communication ports
- Up to 16 axes synchronous control through CANopen communication
- Supports electronic gear, E-cam (2.048 points), flying shear and rotary cut instructions
- Built-in 12 I/O points *(8 sets of high-speed inputs, 4 sets of high-speed outputs)*
- Built-in motion control instructions of electronic cam, flying shear, rotary cut for easy operation

		inputs			
		(DI)	(DO)		
DVP10MC11T	24 VDC	8	4	motion controller	transistor (NPN)

PLC starter kits

Each kit comes complete with programming software for the PLC and HMI products, an I/O simulator board, 24 VDC power supply, all interconnecting cables, and a printed starter kit user manual. A Delta Branded USB memory stick is also included with product user manuals, product instruction sheets, and example application programs – all designed to increase commissioning productivity of feature use and interconnected communication.

- Available as Ethernet based kit or economical serial port based kit
- For learning PLC and HMI programming
- UT-14SS2-A *(Serial Kit- DVP-14SS11R + 7" serial HMI)*
- UT-12SE-A1 *(Ethernet Kit - DVP12SE11R + 7" Ethernet HMI)*

UT-14SS2-A	starter kit for learning programming of PLC /HMI	relay
UT-12SE-A1	as above , but with hardware for Ethernet communication	relay

Extension modules for SS2/SA2/SE/SX2/SV2/MC PLC's

Extension modules simply clip onto CPU's to add many additional functions, additional digital and/or Analog I/O's, communication, temperature measurement and load cell monitoring.

General extension modules *(right side mounting)*

type	supply	inputs (DI)	outputs (DO)	description	output type
Digital Input extension modules					
DVP08SM11N	24 VDC	8	–	extension module	–
DVP16SM11N	24 VDC	16	–	extension module	–
DVP32SM11N∗	24 VDC	32	–	extension module	–
UB-10-ID32A	MIL con	32		terminal module for above	DVP32SM
UC-ET010-24A	MIL con	1 met		I/O connection cable for above	DVP32SM\SN
Digital Output extension modules					
DVP06SN11R	24 VDC	–	6	extension module	relay (6A)
DVP08SN11R	24 VDC	–	8	extension module	relay (1.2A)
DVP08SN11T	24 VDC	–	8	extension module	transist (NPN)
DVP16SN11T	24 VDC	–	16	extension module	transist NPN)
DVP16SN11TS	24 VDC	–	16	extension module	transist (PNP)
DVP32SN11TN∗	24 VDC	–	32	extension module	transist (NPN)
UB-10-OT32A	MIL con	–	32	output terminal module	DVP32SN
UC-ET010-24A	MIL con	1 met		I/O connection cable for above	DVP32SM\SN
UC-ET020-24D	MIL con	2 met		shielded cable for above	DVP32SM\SN
UC-ET030-24D	MIL con	3 met		shielded cable for above	DVP32SM\SN

∗ *Pin head termination. For other cable types and lengths, see C-14*

Digital I/O extension modules					
DVP08SP11R	24 VDC	4	4	extension module	relay
DVP16SP11R	24 VDC	8	8	extension module	relay
DVP08SP11T	24 VDC	4	4	extension module	transist (NPN)
DVP16SP11T	24 VDC	8	8	extension module	transist (NPN)
DVP16SP11TS	24 VDC	8	8	extension module	transist (PNP)

Analog I/O extension modules   ±10V / ±20mA (output: 0 to 10V / 0 to 20mA)

• Built-in RS-485 interface

type	supply	(AI)	(AO)	description	output type
DVP04AD-S2	24 VDC	4	–	extension module	–
DVP06AD-S	24 VDC	6	–	extension module	–
DVP04DA-S2	24 VDC	–	4	extension module	analog
DVP06XA-S2	24 VDC	4	2	extension module	analog

Temperature measurement modules

• Resolution: 0.1°C

type	supply	inputs	outputs	description	sensor
DVP04PT-S∗	24 VDC	4	–	RTD temperature module	PT100/1000
DVP06PT-S	24 VDC	6	–	RTD temperature module	PT100/1000
DVP04TC-S∗	24 VDC	4	–	thermocouple temp. module	(J,K,R,S,T)

∗ *Built-in RS-485 interface*

DVP02TU series temperature control modules *(universal input)*

• Analog inputs:	0 - 10V, 0 - 20mA, 4 - 20mA
• Resolution:	Analog 16-bit, Sensor: 0.1°C
• Thermocouple:	J, K, R, S, T, E, N, B, C, L, U, TXK, PLII
• Output point:	Built-in PID program control/manual control
• RTD:	Pt100, JPt100, Pt1000, Cu50, Cu100, Ni100, Ni1000, LG-Ni1000
• Configuration:	Using TK soft *(embedded in ISP soft)*

type	supply	inputs	outputs	description	output type
DVP02TUL-S	24 VDC	2	2	analog	output voltage/current
DVP02TUN-S	24 VDC	2	4	transistor	NPN output overheat/current
DVP02TUR-S	24 VDC	2	4	relay	output overheat/overcurrent

Positioning control module   *(single axis, 200kHz)*

DVP01PU-S	single-axis, 200kHz	servo position control module

Communication modules

DVPDT01-S	DeviceNet	slave communication module
DVPPF01-S	PROFIBUS-DP	slave communication module

DVP08SM...

DVP04DA-S2

DVP04PT-S

DVPDT01-S