



AC motor drives

- excellent characteristics
- high efficiency, reliable
- built-in MODBUS
- torque boost
- auto-slip compensation
- PID control
- adjustable carrier frequency



series	L Series (sub fractional)					EL Series				EL Series 3 phase				
size	40W	001	002	004	007	002	004	007	015	004	007	015	022	037
output power	25/40W	60/100W	0.2	0.4	0.75	0.2	0.4	0.75	1.5	0.4	0.75	1.5	2.2	3.7
output current	0.28/0.4	0.56/0.8	1.6	2.5	4.2	1.6	2.5	4.2	7.5	1.5	2.5	4.2	5.5	8.2
over current	150% 60s					150% 60s				150% 60s				
output frequency	1.0 - 120		1.0 - 400			0.1 - 600				0.1 - 600				
carrier frequency	-					3 - 10kHz				1 - 15kHz				
mains voltage	180 - 264					200 - 240				380 - 480				
phases	single phase - 3 phase out					single phase - 3 phase out				3 phase				
mains current	0.5/0.7	1/1.4	4.9	6.5	9.7	4.9	6.5	9.7	15.7	1.9	3.2	4.3	7.1	11.2
operating temperature	-10 - +40		-10 - +40			-10 - +50				-20 - +50°C				
inputs analogue	0		1 (0 - 10V/4 - 20mA)			2 (0 - 10V/4 - 20mA)				2 (0-10V/4-20mA)				
inputs digital	2		4(0-18VDC)			6				6				
outputs analogue	0		0			1(0-10V)				1 (0-10V)				
outputs digital	1		0			1(48VDC 50mA)				1				
outputs relay	0		1 (make)			(2.5A 230VAC)				1				
serial communication	RS485 (modbus ASCII)		RS485 (modbus RTU or ASCII)			RS485 (modbus RTU or ASCII)				RS485 (modbus RTU or ASCII)				
control & functions														
parameters	6 (via DIP switch)		95			106				106				
modulation	SVPWM		SVPWM			SPWM V/F (sensorless vector control)				SPWM (sensorless vector control)				
PID control	no		no			yes				yes				
motor parameters	no		limited			limited				limited				
starting torque	-		150% at 5Hz			150% at 3Hz				150% at 5.0Hz				
auto energy saving	no		no			yes				yes				
slip compensation	no		yes			yes				yes				
momentary power loss	no		no			yes				yes				
speed search	no		no			yes				yes				
DC-brake	auto at start		yes			yes				yes				
protection														
overcurrent	yes		yes			yes				yes				
over voltage	yes		yes			yes				yes				
over temp (inverter)	yes		yes			yes				yes				
over temp (motor)	no		I ² t			I ² t				I ² t				
stall prevention	no		no			yes				yes				
low voltage	yes		no			yes				yes				
overload	yes		yes			yes				yes				
external trip	no		yes			yes				yes				
mains phase loss	no		no			yes				no				
output phase loss	no		no			no				no				
ground fault	no		no			yes				yes				
short-circuit	yes		yes			yes				yes				
autorestart	no		10			10				10				
trip memory	no		6			3				5				
s-curve	no		yes			yes				yes				
skip frequencies	no		3			3				3				
jog	no		yes			yes				yes				
preset speeds	no		4			15				7				
torque boost	no		yes			yes				yes				
front potentiometer	yes		yes			yes				yes				
detachable keypad	no		no			yes				yes				
special functions	-		multi-speed step (PLC)			multi-speed step (PLC)				multi-speed step (PLC)				
suitable applications	-		simple general purpose			low cost, easy-to-use general purpose				general purpose				
cooling	convection		fan			convection		fan		convection		fan		
dimensions (H) x (W) x (D)	100 x 60 x 136		132 x 68 x 128			142x72x152		174x100x152		174 x 72 x 136		174 x 100 x 136		



AC motor drives

Delta AC motor drives incorporate superior microprocessor digital control, with high frequency pulse width modulation for smooth motor operation. An extensive array of software control functions, combined with hardware options, provide total solutions for motor automation and control.

Sensorless vector, flux vector and other technologies are employed in a broad range of products, all offer high torque, smooth operation with low harmonic distortion.



VFD-40W



VFD-004L



VFD-015EL



VFD-037EL



BUE-40015



EME-R2CA

type	motor rating	description	dimensions H x W x D	price
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L series sub-fractional general purpose drive (ultra compact)

- output frequency 1.0~ 400Hz
- adjustable V/f curve control
- built-in MODBUS communication (baud rate upto 9600bps)
- built-in EMI filter

Single phase 180-264V 50/60 Hz (three-phase output voltage)

VFD-40WL21B	40W	panel mnt 1ph AC motor drive	100 60 136	1532.00
VFD-001L21B	100W	panel mnt 1ph AC motor drive	100 60 156	1640.00
VFD-002L21B	200W	rail mount 1ph AC motor drive	132 68 128	1872.00
VFD-004L21B	400W	rail mount 1ph AC motor drive	132 68 128	2022.00
VFD-007L21B	750W	rail mount 1ph AC motor drive	132 68 128	2246.00

EL series multi-function micro AC Motor Drives

- output frequency 0.1-600Hz
- high efficiency cooling and flexible space (side-by-side installation)
- standard MODBUS protocol via RS-485
- built-in PID feedback control and EMI filter
- optional fieldbus modules (Profibus, DeviceNet, LonWorks, CANopen)
- complete protection function
- built-in front facia keypad for frequency adjustment and start/stop

Single phase input 180-264V 50/60 Hz (three phase output voltage)

VFD-002EL21A	200W	single phase AC motor drive	142 72 136	1900.00
VFD-004EL21A	400W	single phase AC motor drive	142 72 136	2000.00
VFD-007EL21A	750W	single phase AC motor drive	142 72 136	2140.00
VFD-015EL21A	1.5kW	single phase AC motor drive	174 100 136	2506.00
VFD-022EL21A	2.2kW	single phase AC motor drive	174 100 136	3606.00

Three phase 380-480V 50/60 Hz

VFD-004EL43A	400W	three phase AC motor drive	174 72 136	2700.00
VFD-007EL43A	750W	three phase AC motor drive	174 72 136	2820.00
VFD-015EL43A	1.5kW	three phase AC motor drive	174 72 136	3020.00
VFD-022EL43A	2.2kW	three phase AC motor drive	174 100 136	3700.00
VFD-037EL43A	3.7kW	three phase AC motor drive	174 100 136	4361.00

Accessories for above EL/E Drives

for drives

CME-COP01	Can Open module for drives	VFD-E/EL	1472.00
CME-DN01	Device Net module for drives	VFD-E/EL	960.00
CME-LW01	Lon Works module for drives	VFD-E/EL	1843.00
CME-PD01	PROFIBUS module for drives	VFD-E/EL	2220.00
KPE-LE02	digital display / keypad for speed change/status	VFD-E	153.00
EG2010A	cable for door mounted keypad to drive (2 meter)	VFD-E	220.00
CME-USB01	USB card for VFD-E parameter setting/programming	VFD-E	504.00
EME-A22A	plug-in analogue I/O card (2AI/2AO)	VFD-E	406.00
EME-D33A	plug-in I/O card (photocoupler 3in + 3out)	VFD-E	214.00
EME-PG01	plug-in Pluse Gen. card (open collector 24VDC 50mA)	VFD-E	334.00
EME-R2CA	plug-in relay card (2 x changeover contacts)	VFD-E	248.00
EME-R3AA	plug-in relay card (3 x normally open contacts)	VFD-E	265.00
MKE-DRA	DIN rail adaptor for "A" frame (004-015E)	VFD-E	58.00
MKE-DRB	DIN rail adaptor for "B" frame (022-037E)	VFD-E	64.00
BUE-20015	braking unit (up to 1.5kW 230VAC)	VFD-E/EL	520.00
BUE-40015	braking unit (up to 1.5kW 400VAC)	VFD-E/EL	798.00
BUE-40037	braking unit (up to 3.7kW 400VAC)	VFD-E/EL	1276.00

new



AC motor drives



VFD-007E



VFD-037E



VFD-110E



VFD-450B

new

type	motor rating	description	dimensions H x W x D			price
E series high performance micro AC motor drives with built-in PLC						
<ul style="list-style-type: none"> • built-in PLC function (easy to write PLC programmes without additional PLC) • side-by-side installation (up to 40°C) • standard MODBUS protocol via RS-485 • built-in EMI filter (efficiently reduces electromagnetic interference) • optional fieldbus modules (Profibus, DeviceNet, LonWorks, CANopen) • flexible extension (via optional cards IO/relay/PG encoder/USB) • fascia can be replaced with optional keypad KPE-LE02 (speed change and status indication) 						
Three phase 380-480V 50/60 Hz (three phase output voltage)						
VFD-004E43A	400W	three phase AC motor drive	142	72	152	3100.00
VFD-007E43A	750W	three phase AC motor drive	142	72	152	3230.00
VFD-015E43A	1.5kW	three phase AC motor drive	142	72	152	3480.00
VFD-022E43A*	2.2kW	three phase AC motor drive	174	100	152	3910.00
VFD-037E43A*	3.7kW	three phase AC motor drive	174	100	152	4790.00
VFD-055E43A*	5.5kW	three phase AC motor drive	260	130	169	6590.00
VFD-075E43A*	7.5kW	three phase AC motor drive	260	130	169	7420.00
VFD-110E43A*	11.0kW	three phase AC motor drive	260	130	169	9480.00
VFD-150E43A*	15.0kW	three phase AC motor drive	310	200	190	11510.00
VFD-185E43A*	18.5kW	three phase AC motor drive	310	200	190	14350.00
VFD-220E43A*	22.0kW	three phase AC motor drive	310	200	190	15860.00
* braking chopper built-in						
Accessories see previous page						
B series general purpose drives						
<ul style="list-style-type: none"> • sensorless open and closed loop vector AC drive • output frequency 0.1~400Hz • adjustable V/f curve and vector control • master/auxiliary and 1st/2nd frequency source selectable • 16 step speed control and 15 step preset speed process control • built-in PID feedback control • auto torque boost and slip compensation • built-in MODBUS communication, band rate 38400 Bps • built-in PLC functions 						
Three phase 380-480VAC 50/60Hz						
VFD-300B43A	30kW	3 phase AC motor drive	589	370	260	25650.00
VFD-370B43A	37kW	3 phase AC motor drive	589	370	260	29650.00
VFD-450B43A	45kW	3 phase AC motor drive	589	370	260	35900.00
VFD-550B43C	55kW	3 phase AC motor drive	660	425	280	45500.00
VFD-750B43C	75kW	3 phase AC motor drive	660	425	280	53900.00
Three phase 500-600VAC 50/60Hz						
VFD-015B53A*	1.5kW	3 phase AC motor drive	185	118	160	4980.00
VFD-022B53A*	2.2kW	3 phase AC motor drive	260	150	160	6100.00
VFD-037B53A*	3.7kW	3 phase AC motor drive	260	150	160	6600.00
VFD-055B53A	5.5kW	3 phase AC motor drive	323	200	184	9100.00
VFD-075B53A	7.5kW	3 phase AC motor drive	323	200	184	10600.00
VFD-110B53A	11.0kW	3 phase AC motor drive	323	200	184	13300.00
VFD-220B53A	22.0kW	3 phase AC motor drive	430	250	205	22800.00
VFD-450B53A	45.0kW	3 phase AC motor drive	589	370	260	45600.00
* braking chop built-in.						
VFDB braking units						
Braking units are applied to absorb motor regeneration energy when three phase motors are stopped by deceleration with VFDB braking unit, the regeneration energy is dissipated by braking resistors.						
VFDB-4030	up to 30kW	three phase 460V	for B series drives			4125.00
VFDB-4045	up to 45kW	three phase 460V	for B series drives			4003.00
VFDB-4050	up to 45kW	three phase 575V	for B series drives			4310.00
EMI filters for B series drives						
<ul style="list-style-type: none"> • high performance • easy to install • UL listed CE marked • optimized for long cable runs and operation under full load. 						
100TDS84C	3ph,480V	EMI filter for drive	300/370B43A			4180.00
150TDS84C	3ph,480V	EMI filter for drive	450B43A			4350.00
200TDS84C	3ph,480V	EMI filter for drive	550/750B43A			8250.00
Recommended braking resistors (see page 224)						



Special purpose drives

type	motor rating	description	dimensions H x W x D	price
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F series fan and pump purpose drives

Variable torque AC drives specially designed for medium and high power capacity fan and pump applications. They offer adjustable V/f curve and automatic voltage regulation.

- output frequency 0.1~ 120Hz
- adjustable V/f curve control
- 16 step speed control and 15 step speed process control
- built-in PID feedback control
- built-in MODBUS communication (baud rate up to 38400bps)
- time/fix amount circulation control
- pump control and automatic energy saving

Three phase 380-460VAC 50/60 Hz

VFD015F43A*	1.5	three phase AC motor drive	260	150	160	4260.00
VFD022F43A*	2.2	three phase AC motor drive	260	150	160	5230.00
VFD037F43A*	3.7	three phase AC motor drive	260	150	160	5720.00
VFD055F43B*	5.5	three phase AC motor drive	323	200	184	7220.00
VFD075F43B*	7.5	three phase AC motor drive	323	200	184	7680.00
VFD110F43A*	11.0	three phase AC motor drive	323	200	184	8890.00
VFD150F43A*	15.0	three phase AC motor drive	323	200	184	11550.00
VFD185F43A	18.5	three phase AC motor drive	404	250	206	14050.00
VFD220F43A	22.0	three phase AC motor drive	404	250	206	16770.00

* braking chopper built-in up to 15kW

Larger sizes up to 220kW available on request

VL series elevator drives

VL Series AC motor drives are specially designed for elevation based on many years experience in designing AC motor drives latest control technology has been adopted in the VL Series controlling the motor brake, backup electricity, built-in brake loop auto-tuning of motor parameters, numerous encoder interfaces, bountiful communication function and self protection.

- output frequency 0.00~ 120Hz (offering over 150% output torque at zero speed)
- vector control by FOC, enabling smooth comfortable operation of elevator
- S-curve acceleration/deceleration and battery for abnormal power shut-down
- compliant with EN954- (safety relay) standard
- built-in MODBUS/CAN bus communication interface
- capable to drive induction motors and permanent magnet motors
- EPS (emergency power supply) function
- optional LCD digital keypad and PC tuning software

Three phase 380-460VAC 50/60 Hz

VFD110VL43A*	11.0	three phase elevator drive	350	235	136	13340.00
VFD150VL43A*	15.0	three phase elevator drive	404	255	168	15950.00
VFD185VL43A*	18.5	three phase elevator drive	404	255	168	20600.00
VFD220VL43A*	22.0	three phase elevator drive	404	255	168	23200.00
VFD300VL43A	30.0	three phase elevator drive	595	335	260	35100.00
VFD370VL43A	37.0	three phase elevator drive	595	335	260	40400.00

* braking chopper built-in up to 22kW (braking units see pg 86)
(other sizes 5.5 up to 75kW available on request)

Accessories for VL Series

KPVL-CC01	optional digital keypad	for VL drives	902.00
EMVL-I0DA01	I/O and D/A card	for VL drives	935.00
EMVL-SAF01	safety relay board	for VL drives	785.00
EMVL-PGABO	for ABZ open collector	for VL drives	725.00
EMVL-PGABL	for ABZ/UVW line drive	for VL drives	725.00
VFDB-4030	30kW three phase 460V braking unit		4125.00
VFDB-4045	37kW three phase 460V braking unit		4003.00

recommended braking resistors (see page 224)



VFD055F

new



VFD185F

new



VFD185VL



KPVL-CC01



EMVL-SAF01



DVP series - programmable logic controllers

- outstanding operation
- special functions
- sequential control
- compact size
- I/O points
- all PLC MPUs have built-in communication functions



Delta DVP series programmable logic controllers (PLC) are compact in size with outstanding performance, high capacity for program planning (Max. 16K steps) and can work with various function extension modules. All PLC MPUs have built-in communication functions and handy communication instructions. No extra communication modules are needed, Delta DVP PLCs are able to construct a complete control network with all Delta industrial automation products. Delta PLC's MPUs satisfy all kinds of applications, e.g. MPU for basic sequential control, special MPU with built in analogue function or for motion controls and advanced MPU for complex operation requirements. Delta's small PLC's also offer the most cost effective solution that most meets your need.

type		ES2	EX2	SS	SA	SX	EH2	SV	PM
power supply	100-240VAC (-15% + 10%)	●	●				●		●
	24VDC (-15% + 20%)			●	●	●		●	
I/O points	expandable to: 256 points	●	●	●	●	●			
	512points						●	●	●
program capacity	4K steps			●					
	8K steps				●	●			
	16K steps	●	●				●	●	
	64K steps								●
output type	relay	●	●	●	●	●	●	●	
	transistor	●	●	●	●	●	●	●	
	differential signal								●
special functions	RTC	●	●		●	●	●	●	
	FLASH memory	●	●				●	●	●
	supports special extension module			●	●	●	●	●	●
	supports function extension card						●		●
	supports high speed exten. module						●	●	●
	built-in AI/AO		●			●			
	2 -axes linear/arc interpolation						●	●	●
	supports pulse position instruction						●	●	●
MPG signal input								●	
compatible with G-Code/M-Code	●	●						●	
bandwidth of high-speed counting (1 phase)	20KHz	●	●	●	●	●			
	100KHz	●	●						
	200KHz						●	●	●
bandwidth of high-speed pulse output	10KHz	●	●	●					
	50KHz				●	●			
	100KHz	●	●						
	200KHz						●	●	
	500KHz								●
MODBUS series communication port	COM1 RS-232	●	●	●	●	●	●	●	●
	COM2 RS-485	●	●	●	●	●	●	●	●
	COM3	●	●				●		●
communication	PLC EASY LINK Master Station	●	●		●	●	●	●	
	Profibus LINK (optional)	●	●	●	●	●		●	
	DeviceNet LINK (optional)	●	●	●	●	●		●	
	Modem LINK (optional)	●	●					●	
	Industrial Ethernet Network (optional)	●	●					●	



DVP series programmable logic controllers (PLCs)



DVP-16ES2



DVP-24ES2



DVP-40ES2



DVP-08XM2



DVP-08XP2



DVP-16XP2

The new ES2 Series PLC is a compact highly efficient, functional instrument 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 add-on extensions) up to 272 points
- large program capacity: 16k steps
- 3 COM ports built-in: 1 x RS-232/ 2 x RS-485 (able to operate independently)
- 2 - Axis 100kHz pulse outputs - 2 x 10kHz pulse outputs
- new motion control instructions: close loop, alignment mark, shield, immediate variable control, S-curve acceleration / deceleration
- emerging industry application; exclusive instruction and function blocks for PV solar tracking
- handy frequency inverter instructions for controlling Delta's AC motor drives
- plug-in termination

ES2 series standard MPU 100-240V AC

- MPU I/O 14,20,24,32,40,60 points (extendable to 256 points)
- cost effective

type	supply (-15%+10%)	input (DI)	outputs (DO)	output types	price
DVP16ES200R	100-240VAC	8	8	relay	1780.00
DVP24ES200R	100-240VAC	16	8	relay	2170.00
DVP32ES200R	100-240VAC	16	16	relay	2540.00
DVP40ES200R	100-240VAC	24	16	relay	2810.00
DVP60ES200R	100-240VAC	36	24	relay	3890.00
DVP16ES200T	100-240VAC	8	8	transistor	1780.00
DVP24ES200T	100-240VAC	16	8	transistor	2170.00
DVP32ES200T	100-240VAC	16	16	transistor	2540.00
DVP40ES200T	100-240VAC	24	16	transistor	2810.00
DVP60ES200T	100-240VAC	36	24	transistor	3890.00

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

	supply	digital		analogue		output types	price
		digital	analogue	digital	analogue		
DVP20EX200R	100-240VAC	8	4	6	2	relay	2670.00








I/O extension modules for ES/EX series - 24VDC supply

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

DVP08XM211N	24VDC	8					812.00
DVP16XM211N	24VDC	16					895.00
DVP08XN211R	24VDC			8		relay	812.00
DVP16XN211R	24VDC			16		relay	1260.00
DVP08XP211R	24VDC	4		4		relay	650.00
DVP16XP211R	24VDC	8		8		relay	1200.00
DVP08XN211T	24VDC			8		transistor	812.00
DVP16XN211T	24VDC			16		transistor	1260.00
DVP08XP211T	24VDC	4		4		transistor	650.00
DVP16XP211T	24VDC	8		8		transistor	1200.00



DVP series programmable logic controllers (PLCs)

	type	supply (-15%+10%)	input (DI)	outputs (DO)	output types	price
I/O extension modules for ES/EX series - 230V AC power supply required						
 <p>DVP-04AD-E2</p> <p>new</p>	<ul style="list-style-type: none"> output supply for other DC modules 24VDC 100mA (2.4W) 					
	DVP24XN200R	100-240VAC	-	24	relay	1750.00
	DVP24XP200R	100-240VAC	16	8	relay	1550.00
	DVP32XP200R	100-240VAC	16	16	relay	1990.00
	DVP24XN200T	100-240VAC	-	24	transistor	1750.00
	DVP24XP200T	100-240VAC	16	8	transistor	1550.00
DVP32XP200T	100-240VAC	16	16	transistor	1990.00	
Analogue extension modules						
 <p>DVP-04DA-E2</p>	<ul style="list-style-type: none"> voltage ($\pm 10V$, $\pm 5V$) / current ($\pm 20mA$, 0-20mA, 4-20mA) inputs and/or outputs resolution; 14bit ($-32,000 \sim +32,000$) / ($0 \sim +32,000$) digital / analogue photocoupler isolation (not between channels) 					
	DVP02DA-E2	24VDC	-	2	analogue/outputs	1640.00
	DVP04DA-E2	24VDC	-	4	analogue/outputs	2020.00
	DVP04AD-E2	24VDC	4	-	analogue/inputs	1400.00
	DVP06XA-E2	24VDC	4	2	analogue I/O	2020.00
Temperature measurement modules (ES/EX series)						
 <p>DVP-04PT-E2</p>	<ul style="list-style-type: none"> resolution: 16-bit digital/analogue photocoupler isolation (not between channels) PID temperature control 					
	DVP04PT-E2	24VDC	4 points resistance (Pt 100, Pt 1000, Ni 100/1000)			1490.00
	<i>Temperature sensor input: 0-300Ω resistance input</i>					
 <p>DVP-04TC-E2</p>	DVP04TC-E2	24VDC	4 points of thermocouple (J ,K ,R ,S ,T ,E ,N type)			1880.00
	<i>Temperature sensor input: -80mV~+80mV voltage input</i>					
Accessories						
 <p>DVP-14EC00R3</p>	DVPACAB2A30	cable: PC (9 pin D-sub) to PLC (3 meter)				120.00
	DVPPCC01	program/data copy module for all DVP series				660.00
Software (windows based)						
New programming software: ISP soft supports ladder diagram, function block and many other programming modes, allowing program editing in a modular way ISP soft saves time in large project development allowing repetitive use of already made function blocks.						
 <p>ISP SOFT</p>	ISP soft	programming software tool (compact disc) (or freely downloadable via internet)				180.00
	DVP-EC 3 series econo PLC					
EC-3 series is the most economical solution for sequential control and communication monitoring						
<ul style="list-style-type: none"> MPU I/O points: 10,14,16 points program capacity: 4K steps com ports: built-in RSS232 port built-in 4 point high speed countres 2 x 20/10kHz, 1 x 20kHz, 1 x 4kHz 						
	type	supply	input (DI)	outputs (DO)	output types	price
 <p>DVP-24EC00R3</p>	DVP10-EC00R3	100-240VAC	6	4	relay	1130.00
	DVP14-EC00R3	100-240VAC	8	6	relay	1260.00
	DVP16-EC00R3	100-240VAC	8	8	relay	1400.00
	DVP24-EC00R3	100-240VAC	12	12	relay	1750.00



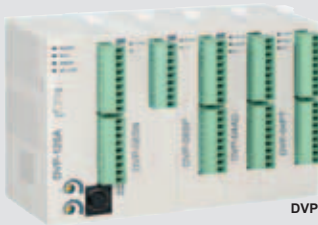
DVP series programmable logic controllers (PLCs)

Delta high performance, high speed DVP series PLCs are of the most efficient instruments with incorporated communication capabilities. Advantages such as numerous built-in convenient commands offer easy access to operation and communication function monitoring.

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

Common characteristics

- compact (H) 90mm x (D) 60mm
- built-in high speed counter
- clip-on extension modules (up to 512 points) digital and analogue I/O
- plug-in termination
- dual communication port (com1: RS232, com2: RS485) MODbus ASCII/RTU compatible
- program language: instruction list (IL), ladder diagram (LD), sequential function chart (SFC)
- DIN rail mounting



DVP



DVP-14SS



DVP-12SA



DVP-10SX



DVP-28SV

type	supply	input(DI)	outputs(DO)	output types	price		
SS series "basic" micro MPU 24VDC compact ultra-slim (25.2mm wide)							
<ul style="list-style-type: none"> • MPU I/O 14 points (8DI + 6DO) expandable to 238 points • program capacity: 4K steps • independent high-speed pulse output (with frequency up to 10kHz) • built-in 4 group high speed counter 							
DVP14SS11R2	24VDC	8	6	relay	1092.00		
DVP14SS11T2	24VDC	8	6	transistor	1092.00		
SA series "advanced" performance MPU (module type) 24VDC (37.4mm wide)							
<ul style="list-style-type: none"> • MPU I/O 12 points (8DI + 4DO) expandable to 236 points • program capacity: 8K steps • independent high-speed pulse output (with frequency up to 50kHz) • real time clock 							
DVP12SA11R	24VDC	8	4	relay	1400.00		
DVP12SA11T	24VDC	8	4	transistor	1400.00		
SX series "special function" MPU (2 analogue inputs/outputs) module type 24VDC (37.4mm wide)							
<ul style="list-style-type: none"> • MPU I/O 10 points (4 DI + 2 AI / 2 DO + 2 AO) expandable to 230 points • program capacity: 8K steps • independent high-speed pulse output (with frequency up to 50kHz) • real time clock 							
		digital	analogue	digital	analogue		
DVP10SX11R	24VDC	4	2	2	2	relay	2050.00
DVP10SX11T	24VDC	4	2	2	2	transistor	2050.00
SV series "high performance" MPU 24VDC (70mm wide)							
<ul style="list-style-type: none"> • MPU I/O 28 points (16 DI + 12 DO) expandable to 512 points • program capacity: 16K steps • left side high-speed function extension interface (parallel extension bus) • linear/arc interpolation motion control • high speed pulse output (with frequency up to 200kHz) • supports 2-group (Y0, Y1) (Y2, Y3) A, B phase pulse outputs (up to 200kHz) • CPU + ASIC dual processors support floating point operations. • real time clock 							
DVP28SV11R	24VDC	16	12	relay	2950.00		
DVP28SV11T	24VDC	16	12	transistor	3050.00		

new



Extension modules and accessories

Extension modules (clip-on) for SS / SA / SX / SC / SV Series

I/O extension modules allow simple, easy, flexible extension of the MPU by simple clipping directly onto the main MPU no cables or extensions are required.

Digital I/O extension units (clip-on module) series extension

type	supply	input(DI)	outputs(DO)	output type	price
Input points extension					
DVP08SM11N	24VDC	8	-	-	405.00
DVP16SM11N	24VDC	16	-	-	670.00
Output points extension					
DVP08SN11R	24VDC	-	8	relay	600.00
DVP08SN11T	24VDC	-	8	transistor	600.00
Mixed I/O extension					
DVP08SP11R	24VDC	4	4	relay	630.00
DVP16SP11R	24VDC	8	8	relay	695.00
DVP08SP11T	24VDC	4	4	transistor	630.00
DVP16SP11T	24VDC	8	8	transistor	695.00
DVP16SP11TS	24VDC	8	(PNP type) 8	transistor	750.00

Analogue I/O extension units (clip-on module) (0-10V (or) 0-20mA) up to 12 bits

type	supply	analogue inputs	analogue outputs	output type	price
Analogue inputs extension					
DVP04AD-S	24VDC	4	-	analogue	1360.00
DVP06AD-S	24VDC	6	-	analogue	1480.00
Analogue outputs extension					
DVP02DA-S	24VDC	-	2	analogue	1660.00
DVP04DA-S	24VDC	-	4	analogue	2070.00
Mixed analogue I/O					
DVP06XA-S	24VDC	4	2	analogue	1520.00

Temperature measurement modules (clip-on module)

DVP04PT-S	24VDC	4	PT100 -200°C~600°C temp. extension	1650.00
DVP04TC-S	24VDC	4	thermocouple (J,K,R,S,T 100°C~1000°C)	1650.00

Communication modules (clip-on module)

DVPPF01-S	profibus	slave communication module	3330.00
DVPDT01-S	deviceNet	slave communication module	2150.00
DVPEN01-SL	Ethernet	MODBUS TCP/IP COM module for SV series	3650.00

Motion control module (clip-on module)

DVP01PU-S	single-axis	position control module	2230.00
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Power supply module (DIN rail mounting)

DVPPS01	100-240VAC input	24VDC output voltage max, 1A	298.00
DVPPS02	100-240VAC input	24VDC output voltage max, 2A	390.00

Accessories

DVPACAB2A30	cable: PC (9 pin D-sub) to PLC (3 meters) upload/download	120.00
DVPPCC01	program / data copy module for all DVP Series	660.00

Software (windows based) easy to learn and use with provided help file

ISP SOFT	programming software tool (compact disc.) (or freely downloadable via internet)	180.00
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Operation interface panels/human machine interface (HMI)

- monochrome - shades of blue - full colour display
- incorporated system / function keys
- touch screen (HMI)
- extension modules - printer / I-O interface / Ethernet
- supports up to three COM ports
- rapid USB download transmission interface



Type	Operation Interface Panels				Economic HMI (Touch Screen)		
	TP02G-AS1	TP04G-AS2	TP04G-AL2	TP08-BT2	DOP-AS35THTD	DOP-AS57BSTD	DOP-AS57CSTD
Display Type	STN LCD				TFT LCD	TN LCD	
Display Colour	monochrome				65536 colours	8 shades of blue	256 colours
Display Resolution (pixels)	160 x 32	128 x 64	192 x 64	240 x 128	320 x 240	320 x 240	320 x 240
Back Light Life	50k Hours @25°C				30k hours	50k hours	
Display Size (mm)	72 x 22mm	3" (67 x 32mm)	4.1" (102 x 35)	3.8" (83 x 41)	3.5"(70 x 53)	5.7" (115 x 86)	
Operational System	-				Windows based real Time OS		
MCU	-	-	STM32F101	ST STR710RZT7	32-bit RISC Micro-Controller		
Flash Memory	256K Byte			1M Byte	1M Byte		
Program Memory (SDRAM)	-				8M	16M	
Backup Memory (Bytes)	32K		16K	64K	128K		
ROM	n/a				4M	2M	
SM Card	n/a				n/a		
Extension Slot	program copy card				yes		
Perpetual Calendar (RTC)	no	yes	yes	yes	built-in		
USB For Download (USB Client)	n/a				yes		
USB For Data Storage/Printer	n/a				USB		
External Memory card	n/a				USB disk		
Serial COM Port	COM 1	RS-232			RS-232		
	COM 2	RS-485	RS-485/422	RS-422	RS-422/485		
	COM 3			RS-485	RS-232	RS-422/485	
System keys	6	7	5	12	4		
Function keys	10	5	5	12	1		
Operating Voltage	DC=24 (-10 - +15%)				DC=24 (-10 - +15%)		
Power Consumption	3W	3.5W	1.7W	1.8W	-	7.2W	
Backup Battery	3V Lithium Battery CR2032 x 1				3V Lithium Battery CR2032 x 1		
Buzzer	85dB	85dB	no	85dB	85dB		
Cooling Method	Natural Air Circulation				Natural Air Circulation		
Front Panel Protection	IP65 / NEMA / CE, UL				IP65 / NEMA / CE, UL		
Operating Temp	0 - 50 C; 20 - 90% RH (non-condensating)				0 - 50 C; 20 - 90% RH (non-condensating)		
Storage Temperature	-20 - +60°C				-20 - +60°C		
Ambient Humidity	10 - 90% RH (0 - 40 C) Pollution Degree 2				10 - 90% RH (0 - 40 C) Pollution Degree 2		
Vibration Resistance (TEST Fc)	IEC61131-2/ IEC 68-2-6	5Hz≤f<8.4Hz Continuous: 3.5mm / 8.4Hz≤f≤150Hz Continuous: 1.0g			5Hz≤f<8.4Hz Continuous: 3.5mm / 8.4Hz≤f≤150Hz Continuous: 1.0g		
External Dimensions (H) x (W) x (D)	97 x 147 x 36	98 x 147 x 36	110 x 164 x 37	122 x 210 x 45	105 x 141 x 44.8	145 x 184 x 48	
Panel Cutout (H) x (W)	(H) x(W)	85 x 136	85 x 136	97 x 150	109 x 198	93 x 119	94 x 119
Editing Software	TPEditor				Screen Editor 1.05.79		
Price	1420.00	1740.00	1590.00	2180.00	2920.00	3670.00	-



new



Wide Screen HMI (Touch Screen)				High End HMI (Touch Screen)			
DOP-B05S100	DOP-B05S101	DOP-B07S201	DOP-B07S211	DOP-AE57GSTD	DOP-AE57BSTD	DOP-AE80THTD	DOP-AE10THTD1
TFT LCD				STN LCD		TFT LCD	TFT LCD
65536 colours				16 Shades of grey	8 Shades of Blue	65536 colours	65536 colours
480 x 234				320 x 240		640 x 480	
50k hours				50k hours		50k hours	30k hours
5.6" (113 x 85)		7" (154 x 87)		5.7" (115 x 86)		8" (162 x 122)	10.4" (211 x 158)
Windows based real Time OS				Windows based real Time OS		Windows based real Time OS	
32-bit RISC Micro-Controller				32-bit RISC Micro-Controller		32-bit RISC Micro-Controller	
4M	6M	4M		3M		8M	
8 Mbytes	16 Mbytes	16 Mbytes		16 Mbytes		32 Mbytes	32 Mbytes
128K		256K		512K			
4M				4M		8M	
n/a				yes		yes	no
n/a				yes			
built-in				built-in			
yes				yes			
yes				n/a		USB	
yes				n/a		yes	
RS-232				RS-232			
RS-422/485		RS-232/422/486		RS-232/422/485			
RS-422/486		RS-232/422/487		RS-232/422/486			
n/a		4	n/a	4		6	7
n/a		4	n/a	1		1	1
DC +24V (-10% +15%)				DC +24V (-10% +15%)			
3.0W		4.8W		7.2W		14W	15W
3V Lithium Battery CR2032 x 1				3V Lithium Battery CR2032 x 1			
Multi-Tone Frequency (2 - 4K Hz) ?85dB				85dB			
Natural Air Circulation				Natural Air Circulation			
IP65 / NEMA / CE, UL				IP65 / NEMA / CE, UL			
0 - 50 C; 20 - 90% RH (non condensating)				0 - 50 C; 20 - 90% RH (non condensating)			
-20 - +60°C				-20 - +60°C			
10 - 90% RH (0 - 40 C) Pollution Degree 2				10 - 90% RH (0 - 40 C) Pollution Degree 2			
5Hzsf<8.4Hz Continuous: 3.5mm / 8.4Hzsf≤150Hz Continuous: 1.0g				5Hzsf<8.4Hz Continuous: 3.5mm / 8.4Hzsf≤150Hz Continuous: 1.0g			
144 x 184 x 50		161 x 215 x 50		145 x 184 x 48		178 x 243 x 52.4	222 x 297 x 51
133 x 173		143 x 197		94 x 119		167 x 232	210 x 286
Screen Editor 2.00.05				Screen Editor 1.05.79			
3680.00	3860.00	5020.00	5120.00	4610.000	4660.00	12090.00	15800.00



Human machine interface (HMI)



TP02G



TP04G



TP08G-AS2



DOP-AS35

new



DOP-B05S

new



DOP-B07S



DOP-AE80

TP series operation interface panel (STN-LCD display with backlight)

- built-in dual communication port RS-232 and RS-485
- built-in real time clock with perpetual calendar (TP04 and TP08 only)
- numerous built-in software functions, value, meter, texts, graphic options
- function keys (systems functions)
- password facility (to lock out unwanted program changes)

type	display size	keys	description	price
TP02G-AS1	(72 x 22)	16	2 lines display operation interface panel	1420.00
TP04G-AS2	3.0" (67 x 32)	12	4 lines display operation interface panel	1740.00
TP04G-AL2	4.1" (102 x 35)	10	4 lines display operation interface panel	1590.00
TP08G-BT2	3.8" (83 x 41)	24	8 lines display operation interface panel	2180.00

Accessories

DVP-ACAB530	communication cable to PC TP02/04/08 via RS-232	140.00
DVP-ACAB2A30	communication cable DVP (PLC) to TP02/04/08	120.00
TPEditor	software editor for TP series operation interface	180.00

DOP series HMI (human machine interface) touch screens

The Delta DOP series HMIs supports, not only Delta products (AC drives, temperature controllers, PLCs) but also many well known and different PLC types. The Windows-based software ISP soft is very powerful and user friendly for user design and configuration.

DOP-AS Series (economic version) touch screen

- ARM9 32-bit CPU
- 320 x 240 pixels
- 4 function keys
- 1M flash memory - 128k SRAM
- 3 sets of COM ports for multiple communication protocols

DOP-AS35THTD	3.5" (70 x 53)	4/1	65536 colours	HMI touch panel	2920.00
DOP-AS57BSTD	5.7" (115 x 86)	4/1	8 shades blue	HMI touch panel	3670.00

DOP-B series (wide screen version) touch screen

- ARM9 32-bit CPU
- 8 function keys (DOP-B07)
- multimedia sound effect output
- 3M flash memory - 128k/256k SRAM
- supports: CF memory card - Ethernet
- 3 sets of COM ports for multiple communication protocols

DOP-B05S100	5.6" (113 x 85)	-	65536 colours	no buttons touch panel	3680.00
DOP-B05S101	5.6" (113 x 85)	-	65536 colours	no buttons touch panel	3860.00
DOP-B07S201	7.0" (154 x 87)	4/4	65536 colours	HMI touch panel	5020.00
DOP-B07S211	7.0" (154 x 87)	4/4	65536 colours	HMI touch panel	5120.00

DOP-AE Series (high end series) touch screen

- ARM9 32-bit CPU
- 3M, 7M flash memory - 512k SRAM
- supports SM card (except 9.4" model)
- USB1.1 for high speed screen data download
- extension slot for accepting plug-in add-ons
- 3 sets of COM ports for multiple communication protocols

DOP-AE57GSTD	5.7" (115 x 86)	4/1	16 shades grey	HMI touch panel	4610.00
DOP-AE57BSTD	5.7" (115 x 86)	4/1	8 shades blue	HMI touch panel	4660.00
DOP-AE57CSTD	5.7" (115 x 86)	4/1	256 colours	HMI touch panel	6500.00
DOP-AE80THTD	8.0" (162 x 122)	6/1	65536 colours	HMI touch panel	12090.00
DOP-AE10THTD	10.4" (211 x 158)	7/1	65536 colours	HMI touch panel	15800.00

Accessories

Digital I/O modules simply plug into rear of HMI enabling your HMI to be an all-in-one, cost effective controller with excellent control performance. For display, control and operation utilising HMI-WPLsoft with built-in Delta screen editor software.

DOP-EXI014RAE	8 digital inputs/6 digital outputs extension module (AE series)	890.00
DOP-EXI028RAE	16 digital inputs/12 digital outputs extension module (AE series)	1490.00

DOP-EXLNHJ1AE	Ethernet extension module (AE series)	670.00
DOP-EXPM110	printer extension module (AE series)	425.00

DOP-CAUSBAB	USB communication cable	98.00
DOP-CA232DP	PLC to touch panel (via RS-232) communication cable	98.00

SCREEN Editor	software editor for DOP series HMIs	180.00
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provides screen editing and program self-debugging capability, built-in rich objects library and build-your-own picture library support text and graphics editing tools windows operation interface



AC servo motor drives

The new ASDA-A2 Servo Drives meet demanding requirements in industrial automation and satisfy the need for high precision positioning requirements by machine designers and system integrators.



ASD-A21521-U

new

ASDA - A2 servo drives (400W-3kW) , high precision, total control

- excellent performance (up to 1kHz frequency response)
- 64 x internal position settings for continuous motion control
- full closed-loop control (capable of reading second feedback signals)
- real-time capture and compare functions
- settling time below 1ms
- braking register built-in
- MODBUS communication control
- 6 x additional digital inputs (removable terminal block)

type	rated output	Supply	description	price
ASD-A20421-U	400W	220V 1-phase	A2 servo drive	5280.00
ASD-A20721-U	750W	220V 1-phase	A2 servo drive	6530.00
ASD-A21021-U	1.0kW	220V 1-phase	A2 servo drive	6710.00
ASD-A21521-U	1.5kW	220V 1-phase	A2 servo drive	8580.00
ASD-A22023-L	2.0kW	220V 3-phase	A2 servo drive	10090.00
ASD-A23023-L	3.0kW	220V 3-phase	A2 servo drive	11200.00

Larger sized available on request

ECMA motors for "A2" drives

ECMA-C10604ES	400W	low inertia	(20 bit) servo motor (keyway)	4450.00
ECMA-C10807ES	750W	low inertia	(20 bit) servo motor (keyway)	5315.00
ECMA-C11010ES	1.0kW	low inertia	(20 bit) servo motor (keyway)	6750.00
ECMA-E11315ES	1.5kW	mid inertia	(20 bit) servo motor (keyway)	8190.00
ECMA-E11820PS	2.0kW	mid inertia	(20 bit) servo motor (keyway)	9800.00
ECMA-F11830PS	3.0kW	mid/high inertia	(20 bit) servo motor (keyway)	15430.00

Larger sized available on request

Accessories

ASD-ABPW0005	power cable U,V,W for motor 400W - 750W	5met	485.00
ASD-CAPW1005	power cable U,V,W for motor 1kW - 1.5kW	5met	820.00
ASD-CAPW2005	power cable U,V,W for motor 2kW -3kW	5met	1915.00
ASD-ABEN0005	encoder cable for motors 400 - 750W	5met	850.00
ASD-CAEN1005	encoder cable for motors 1kW - 3kW	5met	1025.00
ASD-CARS0003	RS-232 communication cable		140.00
DOP-CAUSBAB	USB communication cable		98.00
ASD-CN5C0050	I/O signal connector (50 pin)		165.00
ASD-BM-50A	terminal board for I/O connectors		2180.00
ASDA-A2-SOFT	ASDA-A2 configuration software		180.00

ASDA - B servo drives (200W-1kW) basic version economic drive

- requires external controller
- response bandwidth 250Hz
- position settling time 2ms
- MODBUS communication control

ASD-B0221A	200W	220V	1-phase/3-phase	"B" servo motor	3770.00
ASD-B0421A	400W	220V	1-phase/3-phase	"B" servo motor	3800.00
ASD-B0721A	750W	220V	1-phase/3-phase	"B" servo motor	4400.00
ASD-B1021A	1000W	220V	1-phase/3-phase	"B" servo motor	5450.00

ECMA motors for "B" drives

ECMA-C30602ES	200W		low inertia servo motor (keyway)	3390.00
ECMA-C30604ES	400W		low inertia servo motor (keyway)	3450.00
ECMA-C30807ES	750W		low inertia servo motor (keyway)	4280.00
ECMA-C31010ES	1000W		low inertia servo motor (keyway)	6015.00

Accessories

ASDBCAPW0205	power cable U,V,W for servo motor 400W - 750W	5met	312.00
ASDCAPW1205	power cable U,V,W for servo motor 1000W	5met	1485.00
ASDBCAEN0005	encoder cable for servo motor 400W - 750W	5met	560.00
ASDBCAEN1005	encoder cable for motor 1000W	5met	1022.00
DVPACAB2A30	communication cable (ASDA-B servo-PC)		120.00
ASDBCND50025	I/O signal connector (D-sub 25 pin connector)		80.00
ASDA-B-SW	Windows-based software for "B" servo		180.00



ASD-B0421A

new



ECMA-C30604ES



Temperature controllers



DTD 4848R0



DTA 4848R0



DTA 4896R0



DTB 7272R0



DTB 4824RR



DTC 1000



DTC 2000

type	panel size(mm) W X H	description	output 1	output 2	price
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DTD "economical" series, temperature controller 100-240VAC 50/60Hz

- 4 control modes: on/off, PID, manual and PID programmable control
- PID parameter auto-tuning
- universal sensor input: (K-J-T-E-N-R-S-B-L-U-TxxK) and RTD (pt100)
- analogue input: current - 0~20mA, 4~20mA / voltage 0~5V, 0~10V, 0~70mV
- relay or voltage pulse output (DC 14V, max. output current 40mA)

DTD 4848R0	48 X 48	econo temperature controller	-	relay	548.00
DTD 4848V0	48 X 48	econo temperature controller	-	14VDC	548.00
DTD 4896R0	48 X 96	econo temperature controller	-	relay	595.00

DTA "standard" series, temperature controller 100-240VAC 50/60Hz

- built-in EEPROM 4K bit memory (data preservation over 10 years)
- dual 7 segment digital LED display (4 digit)
- sampling rate: 0.5sec/scan
- auto-tuning for PID values
- universal sensor input
- relay, voltage or current output

DTA 4848R0	48 X 48	standard temperature controller	-	relay	665.00
DTA 4896R0	48 X 96	standard temperature controller	-	relay	720.00
DTA 9648R0	96 X 48	standard temperature controller	-	relay	720.00
DTA 7272R0	72 X 72	standard temperature controller	-	relay	720.00
DTA 9696R0	96 X 96	standard temperature controller	-	relay	805.00
DTA 4848V0	48 X 48	standard temperature controller	-	14VDC	670.00
DTA 4848C0	48 X 48	standard temperature controller	-	4/20mA	670.00

DTB "advanced" series, temperature controller 100-240VAC 50/60Hz

- 2 groups of outputs to auto-tune 2 groups of PID parameters
- sampling rate: 0.4sec/scan thermocouple/RTD 0.15 analogue input
- output controls: relay/voltage pulse/current/linear voltage
- 3 groups of alarm output
- built-in dual loop output control for heating and cooling
- RS-485 communication MODBUS ASCII/RTU

DTB 4824RR	48 X 24	temperature controller	relay	relay	760.00
DTB 4848RR	48 X 48	temperature controller	relay	relay	925.00
DTB 4896RR	48 X 96	temperature controller	relay	relay	1010.00
DTB 9696RR	96 X 96	temperature controller	relay	relay	1090.00
DTB 4824VR	48 X 24	temperature controller	14VDC	relay	760.00
DTB 4848VR	48 X 48	temperature controller	14VDC	relay	925.00
DTB 4896VR	48 X 96	temperature controller	14VDC	relay	1010.00
DTB 9696VR	96 X 96	temperature controller	14VDC	relay	1090.00
DTB 4896CR	48 X 96	temperature controller	4-20mA	relay	1010.00
DTB 9696CR	96 X 96	temperature controller	4-20mA	relay	1090.00
DTB 4896LR	48 X 96	temperature controller	0-5V,0/10VDC	relay	1010.00
DTB 9696LR	96 X 96	temperature controller	0-5V,0/10VDC	relay	1090.00

Any other combination of outputs available on request.

DTC modular temperature controller (24 VDC) compact DIN rail mounting

The modular DTC series saves wiring and the parallel modules are able to monitor many temperature points.

- PID/on-off/manual input/programmable control modes
- 2 groups of outputs
- universal sensor input: (K-J-T-E-N-R-S-B-L-U-TxxK) and RTD (pt100) (see pg 136 for sensors)
- analogue inputs: current 0-20mA/4-20mA - linear voltage 0-5V/0-10V
- built-in RS485 communication interface MODBUS ASCII/RTU 2400-38400 band rate

DTC 1000R	25.2 X 90	main unit temp controller	relay	relay	640.00
DTC 1000C	25.2 X 90	main unit temp controller	4-20mA	relay	640.00
DTC 2000R	25.2 X 90	ext. unit temp controller	relay	relay	640.00
DTC 2000C	25.2 X 90	ext. unit temp controller	4-20mA	relay	640.00

Accessories

DTCCOM	communication software supports DTB/DTC through RS-485 interface. Able to connect many controllers at the same time and monitor - status and setting of controllers. Users can read, set and save parameters via this software.				180.00
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Temperature controllers



ES3...



ES5...



IFD8500



IFD8510



IFD8520



IFD9503



IFD9507



DPA



Rotary optical encoders

Incremental encoders rated voltage 7-24VDC

ROE series provide precise positioning and speed sensor function. They convert rotary motion or position to electronic pulse numbers for phase change, speed and position detection.

ES Solid shaft series

type	shaft type	shaft diameter	resolution ppr	rated voltage	encoder diameter	price
ES3-02CN6941	shaft	6mm	200ppr	7-24VDC	36.6mm	795.00
ES3-0CCN6941	shaft	6mm	360ppr	7-24VDC	36.6mm	795.00
ES5-02CN8942	shaft	8mm	200ppr	7-24VDC	50mm	902.00
ES5-0CCN8942	shaft	8mm	360ppr	7-24VDC	50mm	1080.00
ES5-05CN8942	shaft	8mm	500ppr	7-24VDC	50mm	880.00
ES5-10CN8942	shaft	8mm	1000ppr	7-24VDC	50mm	1100.00

Other solutions available on request.

- Standard (as above) open collector 9-24V resolution as above
- Available voltage output, line driver, push-pull 5VDC and 5-12VDC

Resolution available: from 100 - 5000ppr

EH Hollow shaft series

EH5-02CN8942	hollow	8mm	200ppr	7-24VDC	50mm	encoder	1220.00
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Industrial communication modules

Used in industrial automation applications, they are used as connectors for ending different electrical signals, including converting RS-232, RS-422/485 signal providing compatibility with series Servo information and control devices. IFD series robust industrial communication modules are high quality, stable with built-in protection. Besides multiple installation methods, their excellent signal processing and isolation properties ensure correct data transmission.

type	description	price
IFD8500	RS-232 to RS-485/422 isolated converter	820.00
IFD8510	RS-485/422 isolated repeater amplifies RS-485/422 signals overlong distance (up to 1.2km) up to 32 nodes	940.00
IFD8520	RS-485/422 to RS-232 isolated converter	1080.00
IFD6500	RS-485 to USB converter	755.00
IFD9502	(DNA02) Devicenet <-> RS-485 communication module	2015.00
IFD9503	(COA02) CANopen <-> RS-485 communication module	1590.00
IFD9506	(ENA01-MOD) ethernet gateway, MODbus RS-485 -to-MODbus TCP/IP protocol	2460.00
IFD9507	(ENA01-EIP) ethernet gateway, MODbus RS-485 -to-ethernet TCP/IP protocol	2460.00
DCI-Soft	software for network modules IFD9506/7	180.00

DPA new-generation slim pressure and vacuum sensors (minus 100~ +100 kPa)

- 2 digital outputs (NPN or PNP) 1 analogue output (1-5V)
- various unit conversion functions (kPa, kgf/cm², bar, mmHg, psi, IncnHg)
- parameter copy function (fast copy parameter to other slave units)
- 3 colour LED display (can set display to indicate in different colours for different parameters)
- 10 x output response times available
- safety control function (to prevent unwanted parameter changes)
- connection 1/8PT inner pore M5
- compact dimensions (H)30 x (W) 30 x (D) 26/43.3mm

type	pressure range (kPa)	output type	pore type	description	price
DPA01MP	-100~+100	2 x NPN+1-5VDC	1/8PT	DPA pressure sensor	860.00

Accessories

DPA-PFkit	panel mounting accessory (31 x 31mm cutout)	95.00
DPA-FMkit	surface mounting bracket (all sides mounting)	86.00

Available with 4-20mA output



Temperature controllers

CTA timer / counter / tachometer (in one unit)

The CTA timer/counter/tachometer is able to receive external input signals and calculate the times of events, frequency and speed. CTA can be applied to batch counting, total counting, length measurement, position control, accurate timing, rotation speed etc.

- panel size : 48 x 48mm
- power input : 100-240VAC, 50/60Hz <10VA
- power supply : 12 VDC \pm 10%; 100mA (integrated)
- display : 6 digit, 2 line SV (set value): green / PV (current value): red
- input : PNP voltage or NPN non-voltage
- output : 1 relay 5A/250VAC transistor 100mA/30VDC (can be enabled concurrently)
: 2 relay changeover 5A 250VAC
- easy DIP switch setup

Timer - timing up or down, 0.01 sec - 999,999 hours
on-delay, interval, repeat, (power on, pulsed on, pulsed off)

Counter- counting up or down, 1 or 2 stage counting, batch-total-dual counting
counting speed selection 1/30/200/1k/3k/5k/10k Cps (max.10k Cps)

Tachometer- measurement in Hz (can be changed to RPM)



CTA4100A



DRP024V060W1



DRP024V240W3AA



PMC-12V035W1AA



PMC-12V050W1AA

type	supply		description	price
CTA4100A	100-240VAC	multi-function	timer-counter-tachometer	745.00

Power supplies

Delta power supplies offer a nominal output voltage of 24VDC with a wide temperature range - 20°C to + 75°C and a minimum of 20ms hold up time. The state-of-the-art design is manufactured to withstand harsh industrial environments. The rugged ultra compact housing is shock and vibration resistant to IEC60068-2, and provides overvoltage overload and thermal protection.

Certification: UL508, EN60950, cULus 60950, EN50178, EN60204, GS, CCS Aus

Product Features:

- compact design for easy handling
- overload protection
- overvoltage protection
- thermal protection
- power boost 150% for 3 seconds
- RoHs compliant

type	input voltage	output voltage	rated load	dimensions (H) X (W) X (D)	price
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DIN rail mounting (Single phase)

DVPPS01	100-240VAC	24VDC	25W-1A	92 X 37 X 76	298.00
DVPPS02	100-240VAC	24VDC	50W-2A	92 X 55 X 76	390.00
DRP024V060W1AZ	85-264VAC	24VDC (adj)	60W-2.5A	121 X 32 X 113	380.00
DRP024V120W1AA	85-264VAC	24VDC (adj)	120W-5.0A	121 X 50 X 115	820.00
DRP024V240W1AA	85-264VAC	24VDC (adj)	240W-10A	121 X 85 X 119	1440.00
DRP024V480W1AA	85-264VAC	24VDC (adj)	480W-20A	121 X160 X 119	1950.00

Three phase power supplies

DRP024V060W3AA	320-575VAC	24VDC(adj)	60W-2.5A	121 X 70 X 119	912.00
DRP024V120W3AA	320-575VAC	24VDC(adj)	120W-5.0A	121 X 70 X 119	1040.00
DRP024V240W3AA	320-575VAC	24VDC(adj)	240W-10A	121 X 85 X 121	1630.00
DRP024V480W3AA	320-575VAC	24VDC(adj)	480W-20A	121 X160 X 119	2370.00

Panel mounting (chassis type) enclosed power supplies single phase

- input voltage 85-264VAC; 100-375VDC

PMC-12V035W1AA	85-265VAC	12V(adj)	35W-2.9A	38 X 97 X 123	246.00
PMC-12V050W1AA	85-265VAC	12V(adj)	50W-4.1A	38 X 97 X 158	266.00
PMC-12V100W1AA	85-265VAC	12V(adj)	100W-8.3A	38 X 97 X 158	366.00
PMC-24V050W1AA	85-264VAC	24V(adj)	50W-2A	38 X 97 X 123	260.00
PMC-24V100W1AA	85-264VAC	24V(adj)	100W-4A	38 X 97 X 158	360.00
PMC-24V150W1AA	85-264VAC	24V(adj)	150W-6A	38 X 97 X 158	460.00

new