PLC Selection Table

Flexible, Fast & Efficient Solutions

Flexibility, efficiency and speed are vital factors for staying competitive in the machine building industry. Omron's Control Systems give you this competitive edge. Omron's reputation for product quality, reliability and advanced technology is inherent in all of its control systems, from the smart remote I/O and the compact CPM to the high-performance modular CJ1 and the backplane-based CS1 series.

These control systems are designed for processing speed and transparency. They provide seamless data exchange inside machines, between machines, between machines and hosts, and between machines and remote locations.

Compact PLC series

		CPM1A	CPM2A	СРМ2В	CPM2C		
Page		40	65	82	86		
Built-in	Digital I/O	10 - 40	20 - 60	32 - 40	10 - 32		
	Interrupt inputs	2 - 4	2 - 4	4	2 - 4		
	Counter Inputs	1 (5 kHz)	1 (20 kHz) + 2 to 4 (2 kHz)				
	Pulse Outputs	1 (2 kHz)	2 (10 kHz)				
CPU features / option boards		Built-in AC or DC power supply 2 analog settings	Built-in AC or DC power supply 2 analog settings Removable terminal blocks Standard 2nd serial port	Optional RS-232C port / clock / battery. 12/24 V DC versions. Customised versions on demand.	DC power supply 2nd serial port via converter unit		
Vlax. digit	tal I/O points	10 - 100	80 - 120	168	106 - 192		
Execution time (bit instruction)		0.72 - 1.72 μs	0.26 - 0.64 μs				
Program memory 2 kWords 4 kWords				4 kWords			
Data memory 1 kWords				2 kWords			
Compacti	Flash memory	n.a.					
Analog I/O		Up to 6 inputs and 3 outputs 8-bit, 12-bit resolution U, I, TC, Pt100		Up to 8 inputs and 4 outputs. 13-bit resolution U, I	Up to 4 x (2 in + 1 out) 12-bit resolution U, I, TC, Pt100		
Special function units n.a.							
Industrial	networks	Serial Communications					
Fieldbus	master	n.a.		CompoBus/S			
Fieldbus	I/O link	DeviceNet CompoBusS PROFIBUS-DP		DeviceNet	DeviceNet CompoBus/S		

36 Programmable Controllers

Compact PLC series Modular PLC series Rack PLC series











CP1H	CJ1M	CJ1G/H	CS1G/H	CS1D
СРІН	154	154	274	261
40	16	154	n.a.	201
8	4	n.a.		
4 (100 kHz)	2 (100 kHz)	n.a.		
2 (100kHz) + 2 (30kHz)	2 (100 kHz)	n.a.		
Built-in AC or DC power	Choice of models with	Loop control CPU	2 Serial Ports	Loop Control Board
supply	and without built-in I/O	(4 models)	Loop Control Board	Loop Control Board
4 analog in / 2 analog out	Ethernet CPU (3 models)	(1.110300)		Duplex CPU,
(XA model)				Power Supply and
2 serial communication				Communications
board plug-ins				
1 simple analog input				
1 analog setting				
Removable terminal blocks				
USB programming port				
320	160 - 640	960 - 2560	960 - 5120	5120
0.1 µs	0.1 μs	0.04/0.02 μs	0.04/0.02 μs	0.02 μs
20 kSteps	5 - 20 kSteps	10 - 250 kSteps	10 - 250 kSteps	60 - 250 kSteps
32 kWords	32 kWords	64 - 448 kWords	64 - 448 kWords	128 - 448 kWords
n.a.	Up to 64 MB		Up to 64 MB	
Up to	Up to 20 x 8 points Up to 36 x 8 points		Up to 80 x 8 points, Up to 75 x 8 points,	
approx. 30 inputs/outputs	12 bit resolution	13-bit resolution	13 bit resolution or	13 bit resolution or
(8, 13, 14-bit resolution U, I,	U, I	U, I,	80 x 4 points,	75 x 4 points,
TC, PT100)	15 bit resolution	15-bit resolution	16 bit resolution	16 bit resolution
, ,	TC, Pt100, Pt1000 inputs	TC, Pt100, PT1000 inputs	U, I, TC, Pt100, process I/O	U, I, TC, Pt100, process I/O
Temperature Control	Temperatu	ure Control	Temperature Control	
Protocol Macro	High-speed counters (500 kHz) SSI encoder input Position Control Protocol Macro RFID sensor Unit		SSI encoder input High-speed counters (500 kHz) Position Control Motion Control Process Control Protocol Macro	
RFID Sensor Unit				
· // · /				
Ethernet (100 BASE-Tx) Controller Link	Ethernet (100 BASE-Tx) Controller Link		Ethernet (100 BASE-Tx) Controller Link Serial communications	
Serial Communications				
	Serial communications			
DeviceNet CAN	DeviceNet CAN		DeviceNet PROFIBUS-DP	
PROFIBUS-DP	~.			
CompoBus/S	PROFIBUS-DP CompoBus/S		CAN / CANopen CompoBus/S	
DeviceNet	·			
PROFIBUS-DP	DeviceNet PROFIBUS-DP		DeviceNet PROFIBUS-DP	
CAN	CAN		CAN / CANopen	
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