

- PLC
- HMI
- SENSOR
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# D3 Series

## Features

### Medium-scale Module Type

- 2 types of CPU are available according to programming language.
  - SA: Stage type
  - SR: Relay symbol type
- Module addition: Up to 8 slot
- Maximum I/O points: 168 points
- Program memory: 512 to 3.7 K
- Data memory: 192



### Features

#### Abundant I/O Modules

- Input/Output module
- T/C remote setting module
- Add-Subtract counter module
- High speed processing module
- Analog input/output module

#### Easy-to-use, High-cost Performance I/O Module

All the I/O modules have action indication with 8-point and 16-point modules available.

#### Up to 168 I/O Points Can be Equipped.

The D3 series is a free location type that allows free selection of the balance and type of input/output and up to 168 points.

- D3-05B-1: Up to 112 points
- D3-08B-1: Up to 152 points
- D3-10B-1: Up to 168 points

#### Large Memory Capacity

The SA-21-EX can cover 512 words in the basic configuration and 1,535 words when expanded, and the D3-330P can cover 3,701 words and have 128 stages. They can cover small-scale to medium-scale control.

Data processing instructions are equipped.

- Read and write instruction: 16 bit, 8 bit, 4 bit
- 16-bit operation instruction: Four rules of arithmetic, logic operation, comparison, inversion, code conversion, shift

#### The Pause Function for Stopping the Machine on the Spot and Resuming Operation

The D3 series has a pause relay (No.176) that has the functions of prohibiting only external output while retaining the operating state of the circuit during operation. If the conditions for making the relay ON are programmed, you can stop the machine on the spot and resume operation according to the conditions.

#### Operating State Monitor

Operation can be easily checked by a "16-point block monitor" or the "ON/OFF check monitor".

#### High Speed Instruction Execution Processing







Processing speed: Average 10 ms (0.5 K word)

- Common Subject Matter
- KOSTAC Safety AZ-C1
- SJ
- DL05/06
- DL205
- D4
- D3**
- Programmer
- DirectSOFT
- Terminator I/O
- Process Control
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- Features**
- Specifications
- Dimensions

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## Specifications

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### Model Number List

Name	Outline						
CPU Module	SA Type						
	Model Number	Function			Weight (g)	Price	
	SA-21-1	Memory 1.5 K maximum input/output 168 points			180	Open	
	D3-330P	Memory 3.7 K maximum input/output 168 points			180	Open	
	SR Type						
	Model Number	Function			Weight (g)	Price	
	SR-21-1	Memory 1.7 K maximum input/output 168 points			200	Open	
	D3-330	Memory 3.7 K maximum input/output 168 points			200	Open	
	D3-340	Memory 3.7 K maximum input/output 168 points build-in RS-232C 2 points			200	Open	
	DL (S) Type						
Model Number	Function			Weight (g)	Price		
D3-350	Memory 14.8 K maximum port 1: RS-232C, port 2: RS-232C/422			200	Open		
Self-powered CPU Module	Self-powered CPU Module						
	Model Number	Power Source Type	Number of Slots		Weight (g)	Price	
	D3-05B-1	110/220 V AC	5		1,300	Open	
	D3-05BDC	24 V DC	5		1,300	Open	
	D3-08B-1	110/220 V AC	8		1,310	Open	
	E-03B	100/200 V AC	10		1,500	Open	
	D3-10B-1	110/220 V AC	10		1,500	Open	
	D3-10BDC	24 V DC	10		1,500	Open	
	Base Expansion Cable						
	Model Number	Function			Weight (g)	Price	
D3-EXCBL	Cable length 0.5 m			110	Open		
Extension IO module	Input/Output Module						
	Model Number	Input		Output		Weight (g)	Price
		Points	Function	Points	Function		
	D3-08ND2	8	24 V DC Source			120	Open
	D3-08NE3	8	24 V AC/DC Sink			120	Open
	D3-16ND2-1	16	24 V DC Source			180	Open
	D3-08NA-1	8	100 V AC			140	Open
	D3-08NA-2	8	200 V AC			140	Open
	D3-16NA	16	100 V AC			140	Open
	D3-16NE3	16	24 V AC/DC Sink			170	Open
	D3-08SIM	8	Simulator			90	Open
	D3-08TR			8	Relay 4 A	200	Open
	D3-16TR			16	Relay 2 A	240	Open
	D3-08TD1			8	24 V DC Sink	120	Open
	D3-16TD1-1			16	24 V DC Sink	160	Open
	D3-08TA-2			8	100/200 V AC	180	Open
	D3-16TD2			16	24 V DC Source	200	Open
	Analog Input/output Module						
	Model Number	Input		Output		Weight (g)	Price
		Points	Function	Points	Function		
	D3-02DA				0 to 10 V DC/4 to 20 mA	200	Open
	Special Module						
	Model Number	Function			Weight (g)	Price	
	D3-HSC	High speed counter input/output			130	Open	
	Special unit						
	Model Number	Function			Weight (g)	Price	
	D3-422-DCU	RS422 host link (For SR type)			1,420	Open	
	D3-232-DCU	RS232C host link (For SR type)			1,350	Open	
	Associated Equipment	Accessories					
		Model Number	Function			Weight (g)	Price
D3-MBZL		Simple programmer, bezel for panel installation			570	Open	
D3-FILL		Dummy panel			100	Open	
Peripheral Device							
Model Number		Function			Weight (g)	Price	
PC-DSOFT5		Programmer software for computer			657	Open	
D3-HPP		For SA type Simple programmer			210	Open	
D3-HP		For SR type Simple programmer			210	Open	
Cable / Connector for program							
Model Number		Function			Weight (g)	Price	
S-30JD-T		Connection cable 3 m between DOS/V and D3-232-DCU			280	Open	
D3-HPCBL		1.5 m cable for drawing simple programmer			420	Open	
Maintenance Product							
Model Number		Function			Weight (g)	Price	
D3-D4-BAT	CPU memory backup battery			213	Open		

The specifications and prices described in this catalog were valid when the catalog was issued. For the latest information, contact our sales persons or see our website.

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## Specifications

### General Specifications

Items	Specifications
Supply Voltage	100/200 V AC +32%, -15% 50/60Hz 24 V DC (20 to 30 V DC)
Ambient Temperature	0 to 55°C
Ambient Humidity	5 to 90%RH (No condensation)
Withstand Voltage	1,500 V AC 50/60Hz 1 minute, between power supply and external terminal
Insulation Resistance	20 MΩ or more 500 V DC between power supply and external terminal
Vibration Resistance	Compliant with JIS C 0040
Impact Resistance	Compliant with JIS C 0041
Noise Resistance	1 kV between power supply, external terminal, and outer case NEMA (ISC3-304)
Safety Standard	FCC class A Part 15, subpart J compliance, UL
Surrounding Atmosphere in Place of Use	No corrosive gases

### Performance Specifications

Items	Specifications				
CPU Model Number	SA-21-EX	D3-330P	SR-21-EX	D3-330/340	D3-350
Control System	Stored program and cyclic arithmetic processing system				
Program Setting System	Stage type		Relay symbol type		Stage and relay
Program Memory Capacity (Word)	512 words (Basic) + 1,023 words (Expansion) CMOS-RAM or EPROM*	3,701 words	701 words (Basic) + 1,023 words (Expansion) CMOS-RAM or EPROM*	3,701 words	7,680 words
Processing Speed	Average 10 ms (0.5 K word)				
I/O Point	Up to 168 points				Up to 368 points
Power Failure Holding Area	Stage 000 to 137 (Switch change) Internal relay 200 to 277 (Switch change) Counter elapsed value (Except timer use No.)		Internal relay 340 to 373 (Switch change) Shift register 400 to 577 (All points) Counter elapsed value (Except timer use No.) Data Register		S0-S1777 C0-C1777 T0-T377 CT0-CT177 V0-V3777
Backup Battery	Lithium battery Life of approx. 5 years (25°C)				
Diagnosis Function	Monitoring abnormality (RUN output OFF) Program memory parity check Program memory syntax check (11 items) Battery abnormality, I/O base voltage abnormality				

### Functional List

Function Name	SA21 SA22			SR21 SR22			Remarks
	Points	Bit Number	Register Number	Points	Bit Number	Register Number	
Input/Output	168	000 to 157 700 to 767	000 to 015 070 to 076	168	000 to 157 700 to 767	000 to 015 070 to 076	The area that is not used as I/O can also be used as an internal relay.
Stage	128	000 to 177	100 to 117	—	—	—	000 to 137 can be held during a power failure.
Internal Relay	77	160 to 174 200 to 277	016 to 017 020 to 027	140	160 to 373	016 to 037	
Shift register				128	400 to 577	040 to 057	
Counter/Timer	64	600 to 677	—	64	600 to 677	—	Timer set value: 0.1 to 999.9 sec Counter set value: 1 to 9,999
Timer / Counter Elapsed Value	64 words	—	600 to 677	64 words	—	600 to 677	
Data Register	128 bytes	—	400 to 577	128 bytes	—	400 to 577	
Special Internal Relay	Initial Reset Relay	—	—	1	374	—	* Timer 10 times speed relay: If this relay turns ON, all timers become 0.01-sec timers and operate at one-tenth the time of the set value.
	0.1-sec Clock	1	175	—	375	—	
	Pose Relay	1	176	—	376	—	
	Battery Abnormality Relay	1	177	—	377	—	
	Timer 10-times Speed Relay	1	770	—	770	—	
	External Diagnosis Relay	1	771	—	771	—	
	Accumulator Large Flag	1	772	—	772	—	
	Coincidence Flag	1	773	—	773	—	
	Accumulator Small Flag	1	774	—	774	—	
	Carry Flag	1	775	—	775	—	
	Zero Flag	1	776	—	776	—	
Over Flag	1	777	—	777	—		

# D3 Series

## Dimensions

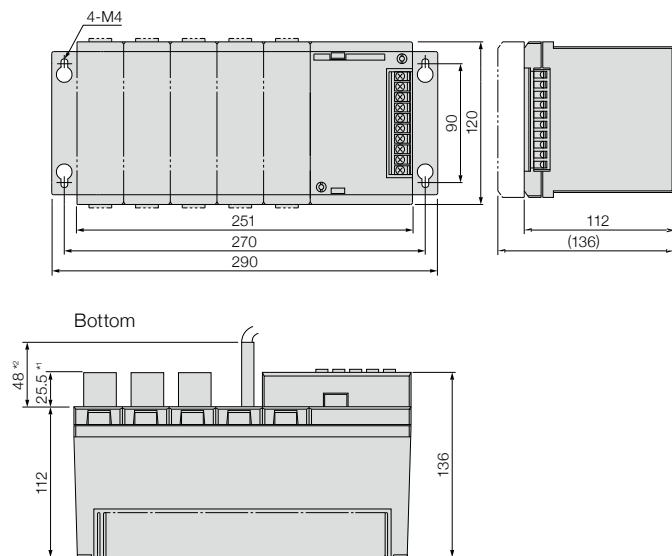
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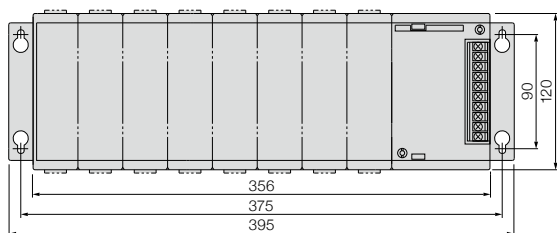
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### Dimensions (Unit: mm)

When the D3-05B-1/D3-05BDC are Used



When the E-03B/D3-10B-1/D3-10BDC are Used



When the D3-08B-1 are Used

