

- PLC
- HMI
- SENSOR
- ENCODER
- COUNTER
- INFORMATION

# D3 Series

## 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				
Programmer	Program Setting System		Relay symbol type		Stage and relay
KPP	Program Memory Capacity (Word)	3,701 words	701 words (Basic) + 1,023 words (Expansion) CMOS-RAM or EPROM*	3,701 words	7,680 words
DirectSOFT	Processing Speed				
Terminator I/O	I/O Point				Up to 368 points
	Power Failure Holding Area		Internal relay		S0-S1777 C0-C1777 T0-T377 CT0-CT177 VO-V37777
	Backup 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	016 to 017	140	160 to 373	016 to 037	
Shift register		200 to 277	020 to 027	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	—		