

Process CPU module specifications

LD : Ladder diagram ST : Structured text FBD : Function block diagram SFC : Sequential function chart

Item	R08PCPU	R16PCPU	R32PCPU	R120PCPU	R08PSFCPU -SET*1	R16PSFCPU -SET*1	R32PSFCPU -SET*1	R120PSFCPU -SET*1
Control method	Stored program cyclic operation							
I/O control mode	Refresh mode (Direct access I/O is available by specifying direct access I/O (DX, DY))							
Programming language	LD ST FBD SFC				LD ST*2 FBD*2			
Extended programming language	Function block (FB), label programming (system/local/global)							
Program execution type	Initial*2, scan*2, fixed scan, interrupt*2, standby*2							
Number of I/O points [X/Y] (point)	4096	4096	4096	4096	4096	4096	4096	4096
Constant scan (ms) (Function for keeping regular scan time)	0.2...2000 (Setting available in 0.1 ms increments)							
Memory capacity								
Program capacity (step)	80K	160K	320K	1200K	80K*3	160K*3	320K*3	1200K*3
Program memory (byte)	320K	640K	1280K	4800K	320K	640K	1280K	4800K
Device/label memory (ECC type)*4 (byte)	1188K	1720K	2316K	3380K	1178K	1710K	2306K	3370K
Data memory (byte)	5M	10M	20M	40M	5M	10M	20M	40M
Instruction processing time								
LD instruction (ns)	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
MOV instruction (ns)	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
E + instruction (floating-point addition) (ns)	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Structured text IF instruction*5 (ns)	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Structured text FOR instruction*5 (ns)	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
PC MIX value*6 (instructions/μs)	419	419	419	419	419	419	419	419
Interface connection port								
High-speed USB2.0 (miniB)	●	●	●	●	●	●	●	●
Ethernet (100BASE-TX/10BASE-T)	●	●	●	●	●	●	●	●
Memory interface*7								
SD memory card	●	●	●	●	●	●	●	●
Extended SRAM cassette	●	●	●	●	●	●	●	●
Safety standard								
IEC 61508 SIL 2	-	-	-	-	●	●	●	●
Function*8								
Multiple interrupt	●	●	●	●	●	●	●	●
Standard PID control	●	●	●	●	●	●	●	●
Process control	●	●	●	●	●	●	●	●
Data logging	●	●	●	●	-	-	-	-
Security function	●	●	●	●	●	●	●	●
Inter-modular synchronization*9	●	●	●	●	-	-	-	-
SLMP communication	●	●	●	●	●	●	●	●
Online module change	●	●	●	●	●	●	●	●
Firmware update*10	●	●	●	●	-	-	-	-

- *1. Product package includes a SIL2 process CPU (R□PSFCPU) and SIL2 function module (R6PSFM).
- *2. Cannot be used for safety control programs.
- *3. Program capacity of 40K steps is allocated for safety program.
- *4. Extended SRAM cassette expands the device/label memory area. (NZ2MC-8MBSE expands the device/label memory area conforming to ECC type memory.)
- *5. The IF or FOR sentence of the structured text consists of several instructions, which may increase the processing time period.
- *6. Average number of instructions such as for basic instructions and data processing executed in 1 μs. The larger the value, the faster the processing speed.
- *7. For more information please refer to the SD memory card and SRAM cassette specifications on page 35.
- *8. Memory dump and real-time monitor are not supported.
- *9. Inter-modular synchronization is not supported when used in redundant mode.
- *10. Depends on supported CPU firmware version, for more information please refer to the relevant product manual.

Redundant function module specifications

Item	R6RFM
Communication cable	Multi-mode optical cable
Max. distance (m)	550 (when the core outer diameter is 50 μm)
Tracking cable data capacity (word)	1M
Firmware update*11	●

*11. For more information, please refer to the relevant product manual.