

1.4 Main Unit Specifications

* is default, user configurable

Items		Specification		Note		
Execution Speed		0.33uS/Sequential Instruction				
Program Capacity		20K Words Program + 3K Words ROR + 8K Words Comment				
Program Memory		ROM Pack or RAM+ Lithium Battery Back-up				
Sequential Instruction		34 Instructions				
Function Instructions		MA Model	275 Instructions (103 Kinds)	Include derivative instruction		
		MC Model	300 Instructions (109 Kinds)			
Sequential Flow Command (SFC)		4				
Discrete (Bit Status)	X	Digital Input (DI)		X0~ X255 (256)		
	Y	Digital Output (DO)		Y0~ Y255 (256)		
	TR	Temporary Relay		TR0~ TR39 (40)		
	M	Internal Relay	Non-retentive	M0~ M799 (800)* Note: Can be configured as Retentive M1400~ M1911 (512)		
			Retentive	M800~ M1399 (600)* Note: Can be configured as Non-retentive		
		Special Relay		M1912~ M2001 (90)		
	S	Step Relay	Non-retentive	S0~ S499 (500)* Note: S20~ S499 can be configured as Retentive		
			Retentive	S500~ S999 (500)* Note: Can be configured as Non-retentive		
	T	Timer "Time Up" Status Contact		T0~ T255 (256)		
	C	Counter "Count Up" Status Contact		C0~ C255 (256)		
Register 《Word Data》	TMR	Timer Current Value Register	0.01S Time Base	T0~ T49 (50)*	The quantity of each time base can be configured	
			0.1S Time Base	T50~ T199 (150)*		
			1S Time Base	T200~ T255 (56)*		
	CTR	Counter Current Value Register	16 Bits	Retentive	C0~ C139 (140)* Note: Can be configured as Non-retentive	
				Non-retentive	C140~ C199 (60)* Note: Can be configured as Retentive	
			32 Bits	Retentive	C200~ C239 (40)* Note: Can be configured as Non-retentive	
				Non-retentive	C240~ C255 (16)* Note: Can be configured as Retentive	
	HR DR	Data Register	Retentive	R0~ R2999 (3000)* Note: Can be configured as Non-retentive D0~ D3999 (4000)		
			Non-retentive	R3000~ R3839 (840)* Note: Can be configured as Retentive		
	Retentive		R5000~ R8071 (3072)* Note: While general purpose register, It allows read/write operation			
Read Only Register	R5000~ R8071 (0)* Note: Can be configured as ROR		ROR memory is out of program memory			
HR ROR FR	File register		F0~ F8191 (8192) Note: Need dedicated instruction to access			

	IR	Input Register	R3840~R3903 (64)				Analog Input or Register Input	
	OR	Output Register	R3904~R3967 (64)				Analog Output or Register Output	
	SR	System Special Register	R3968~R4167 (200) , D4000~D4095 (96)					
	Special Register	0.1mS High-Speed Timer Register		R4152~R4154 (3)				
		High-Speed Counter Register	Hardware (4 ets)	DR4096~DR4110 (4×4)				
			Software (4 sets)	DR4112~DR4126 (4×4)				
		Calendar Register		R4128 (Second)	R4129 (Minute)	R4130 (Hour)	R4131 (Date)	
		R4132 (Month)	R4133 (Year)	R4134 (Week)				
XR	Index Register	V、Z (2) , P0~P9 (10)						
Interrupt Control	External Input Interrupt		32 interrupts (16 points input of positive/negative edge)					
	Internal Fixed Time Interrupt		8 modes (1、2、3、4、5、10、50、100mS)					
0.1mS High Speed Timer			1 (16-bit) 、4 (32-bit, share with HHSC)					
High Speed Counter	Hardware High-Speed Counter (HHSC) /32-bit	Quantity	Max. 4 sets				<ul style="list-style-type: none"> • Total of HHSC and SHSC are 8 sets • HHSC can be defined as 32-bit/0.1mS time base high speed timer 	
		Counting mode	8 modes (U/D、U/D×2、K/R、K/R×2、A/B、A/B×2、A/B×3、A/B×4)					
		Counting frequency	Maximum 100KHz (Single-ended) or 750KHz (Differential)					
	Software High-Speed Counter (SHSC) /32-bit	Quantity	4 for MC model; 2 for MA model					
		Counting mode	3 modes (U/D、K/R、A/B)					
		Counting frequency	Total frequency up to 10KHz					
Communications	Port 0 (RS-232 or USB)		Baud Rate : 4.8Kbps~921.6Kbps				Default is 9.6Kbps	
	Port 1~4 (RS-232 or RS-485)		Baud Rate :4.8Kbps~921.6Kbps * Note: Supporting FATEK/Modbus RTU communication protocol & built-in CPU Link ability					
	Maximum Link Stations		254					
High-Speed Pulse Output for NC Positioning	Number of Axis		Max. 4 Axes					
	Maximum Output Frequency		100KHz (Single-ended) 、750KHz (Differential)					
	Pulse Output Mode		3 modes (U/D、K/R、A/B)					
	Position Language		Text mode Table Editing Language					
High-Speed PWM Output	Number of Points		Max. 4 Points					
	Output Frequency		72Hz~18.432KHz (Resolution is 0.1%) 720Hz~184.32KHz (Resolution is 1%)					
Captured Input		Max. 36 Points						
Digital Filter for Digital Input		X0~X15: Filtering by Time or by Frequency [Time : (1~15)×0.1mS or (1~15)×1mS] [Frequency : 14K~1.8MHz] X16~X35: Filtering by Time (1~15)×1mS						