

NEW

MASTER-K 120S



MASTER-K 120S

Built in Function

20/30/40/60-point standard main unit, 10/14/20/30-point economic main unit

- All the standard DRT-type have transistor output points for position control (except 10-point unit)
- Max. 120 points are available connecting 3 expansion units

High speed processing

- Basic command: 0.1 ~ 0.9 μ s/step, Application command: a few to several tens of μ s/step

Batteryless backup

- Program backup: EEPROM backup while online editing
- Data backup: supercapacitor (over 2000 hours at normal temperature)

Various input handling

- Input filter: filter time can be set from 0 to 1000ms as the unit of 8 points
- Pulse catch: 10 μ s(P0, P1), 50 μ s(P2 ~ P7)
- External interrupt: 10 μ s(P0, P1), 50 μ s(P2 ~ P7)

High speed counter (32-bit signed counter)

- 1 phase: 100kHz 2CH, 20kHz 2CH (4CH in total)
- 2 phase: 50kHz 1CH, 10kHz 1CH (2CH in total)
- Additional functions: preset function, latch counter, comparison output, RPM function

Positioning function

- Control axis: 2 axes (100KHz)
- Operation Mode: Single, Repeated, End, Keep, Continuous
- Additional Function: Return to Origin, JOG operation, PWM Output

Communication function

- Supports two built-in communication ports: RS-232C and RS-485
- Supports 'No Protocol Mode' and communication monitoring

PID control function

- Relay and PRC Auto-tuning
- PWM Output, Anti-derivative kick, Anti-windup, Positioning/Velocity algorithm to assign

Expansion unit



MASTER-K 120S Expansion unit

Expansion module (5 types)

- 6 input (24V DC) and 4 output (relay) / 12 input and 8 output / 10 Tr output / 8 input / 8 output

Analog module

- AD/DA hybrid: G7F-ADHA (A/D: 2CH, D/A: 1CH), G7F-ADHB (A/D: 2CH, D/A: 2CH)
- Input: 0~10V DC, 0~20mA (4~20mA), 12bit (0~4,000), Accuracy: \pm 0.5% (full scale)
- Output: 0~10V DC, 0~20mA (4~20mA), 12bit (0~4,000), Accuracy: \pm 0.5%(full scale)
- Analog input: G7F-AD2A
- 4CH, 0~10V DC, 0~20mA (4~20mA), 12bit (0~4,000), Accuracy: \pm 0.5% (full scale)
- Analog output: G7F-DA2V, G7F-DA2I
- 4CH, 0~10V DC, 12bit (0~4,000), Accuracy: \pm 0.5% (full scale)
- 4CH, 0~20mA (4~20mA), 12bit (0~4,000), Accuracy: \pm 0.5% (full scale)

RTD module

- 4CH: supports Pt100 and JPt100

Analog timer

- 4CH (range: 0 ~ 200) setting by variable resistor

Communication module

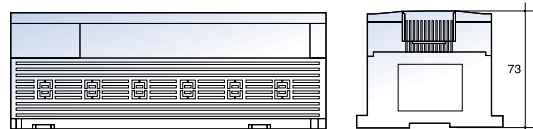
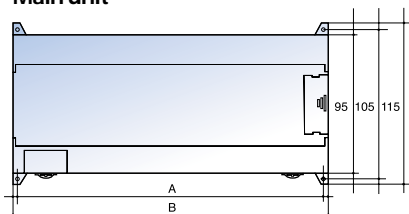
- RS-422, RS-232C (modem), MODBUS (Master/Slave, RTU, ASCII Mode), User defined protocol (by parameter setting)

Product List

Item	Type	Part Number	Specification		
Main	Economic	K7M-DR10UE	AC220V, DC24V 6-input/4-relay output		
		K7M-DR14UE	AC220V, DC24V 8-input/6-relay output		
		K7M-DR20UE	AC220V, DC24V 12-input/8-relay output		
		K7M-DR30UE	AC220V, DC24V 18-input/12-relay output		
		Built-in Functions	Programming capacity: 2k step Pulse catch (50us: 4 points) Input filter (0~1000ms) External interrupt (50us: 4 points) 2 communication ports: loader port, RS-232C (RS-485) (dedicated, user defined, Modbus master/slave, no protocol)		
	Standard	K7M-DR20U	AC220V, DC24V 12-input/8-relay output		
		K7M-DR30U	AC220V, DC24V 18-input/12-relay output		
		K7M-DR40U	AC220V, DC24V 24-input/16-relay output		
		K7M-DR60U	AC220V, DC24V 36-input/24-relay output		
		K7M-DRT20U	AC220V, DC24V 12-input/4-relay output, 4-Tr output		
		K7M-DRT30U	AC220V, DC24V 18-input/8-relay output, 4-Tr output		
		K7M-DRT40U	AC220V, DC24V 24-input/12-relay output, 4-Tr output		
		K7M-DRT60U	AC220V, DC24V 36-input/20-relay output, 4-Tr output		
		Built-in Functions	Programming capacity: 7k step Positioning: 2 axes 100kHz (DRT only) High speed counter (2 phase: 100kHz 1CH, 20kHz 1CH) PID loop with auto-tuning (8 Loops) Pulse catch (10us: 2 points, 50us: 6 points) Input filter (0~1000ms) External interrupt (10us: 2 points, 50us: 6 points) 3 communication ports: loader port, RS-232C, RS-485 (dedicated, user defined, Modbus master/slave, no protocol)		
		Expansion	Digital I/O	G7E-DR10A	DC24V 6-input/4-relay output
				G7E-DR20A	DC24V 12-input/8-relay output
				G7E-TR10A	10-Tr output
				G7E-DC08A	DC24V 8-input, Slim size
				G7E-RY08A	8-relay output, Slim size
A/D,D/A Combination	G7F-ADHA		A/D: 2CH / D/A: 1CH		
	G7F-ADHB		A/D: 2CH / D/A: 2CH, Slim size		
A/D Conversion	G7F-AD2A		A/D: 4CH		
D/A Conversion	G7F-DA2I		D/A: 4CH (current output)		
	G7F-DA2V		D/A: 4CH (voltage output), Slim size		
RTD	G7F-RD2A		Resistance Temperature Detactor (4CH), Slim size		
A/T	G7F-AT2A		4 points (0 ~ 200)		
Cnet I/F	G7L-CUEB		RS-232C 1CH		
	G7L-CUEC		RS-422 1CH		
DeviceNet I/F	G7L-DBEA		DeviceNet slave module		
Fieldbus I/F	G7L-FUEA/RUEA		Fieldbus Interface module		
Profibus-DP I/F	G7L-PBEA		Profibus-DP slave module		
RTC	G7E-RTCA		RTC (Real Time Clock) module		
Memory	G7M- M256B		Memory module (256K)		

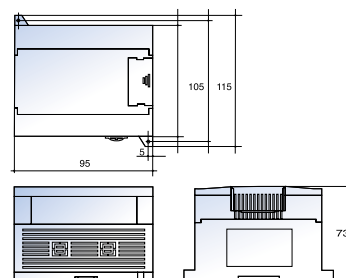
Dimension

Main unit

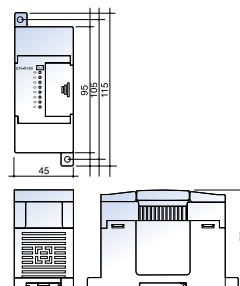


Unit	10 points	20/30 points	40 points	60 points
A	85	135	165	215
B	95	145	175	225

Expansion unit (Standard)



Expansion unit (Slim)



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