

XGK CPU (LS Standard)

Premium CPU for high-speed and large scale application



XGK-CPUUN

- Program capacity: 256K steps
- I/O points: 6,144
- I/O device point: 65,536 (Remote I/O)
- Processing speed: 8.5ns/step



XGK-CPUHN

- Program capacity: 128K steps
- I/O points: 6,144
- I/O device point: 65,536 (Remote I/O)
- Processing speed: 8.5ns/step



XGK-CPUSN

- Program capacity: 64K steps
- I/O points: 3,072
- I/O device point: 65,536 (Remote I/O)
- Processing speed: 8.5ns/step



XGK-CPUU (Ultra capacity)

- Program capacity: 128K steps
- I/O points: 6,144
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 28ns/step



XGK-CPUH (High performance)

- Program capacity: 64K steps
- I/O points: 6,144
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 28ns/step



XGK-CPUA (Advanced)

- Program capacity: 32K steps
- I/O points: 3,072
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 28ns/step

General sequence controller PLC CPU



XGK-CPUS (Standard)

- Program capacity: 32K steps
- I/O points: 3,072
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 84ns/step



XGK-CPUE (Economic)

- Program capacity: 16K step
- I/O point: 1,536
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 84ns/step

XGI CPU (IEC Standard)

Premium CPU for high-speed and large scale application



XGI-CPUZ

- Program Capacity: 10/4/2MBytes
- I/O points: 6,144
- I/O device point: 131,072
- Processing speed: 6.5ns/step



XGI-CPUUN

- Program capacity: 2MBytes
- I/O points: 6,144
- I/O device point: 131,072 (Remote I/O)
- Processing speed: 8.5ns/step



XGI-CPUU

- Program capacity: 1MBytes
- I/O points: 6,144
- I/O device point: 131,072 (Remote I/O)
- Processing speed: 28ns/step

General sequence controller PLC CPU



XGI-CPUH

- Program capacity: 512KBytes
- I/O points: 6,144
- I/O device point: 131,072 (Remote I/O)
- Processing speed: 28ns/step



XGI-CPUS (IEC Standard)

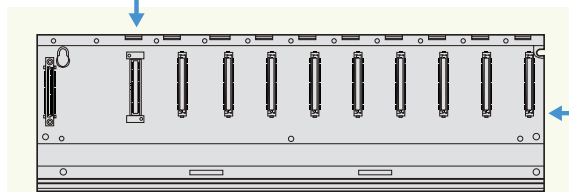
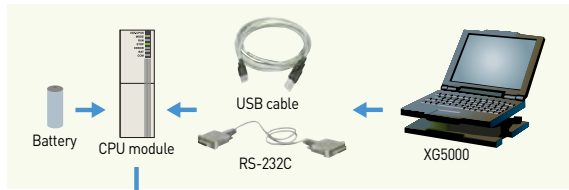
- Program capacity: 128KBytes
- I/O points: 3,072
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 28ns/step



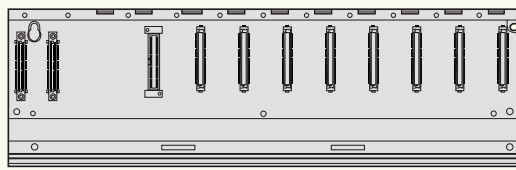
XGI-CPUE (IEC Standard)

- Program capacity: 64KBytes
- I/O points: 1,536
- I/O device point: 32,768 (Remote I/O)
- Processing speed: 84ns/step

CPU Module System composition

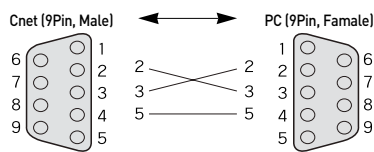


Item	Type	Description	
Expansion cable	XGC-E041	Expansion cable 0.4m	
	XGC-E061	Expansion cable 0.6m	
	XGC-E121	Expansion cable 1.2m	
	XGC-E301	Expansion cable 3.0m	
	XGC-E501	Expansion cable 5.0m	
	XGC-E102	Expansion cable 10m	
	XGC-E152	Expansion cable 15m	
	XGT-TERA	Expansion terminator	
	Expansion terminator		



Item	Main base	Expansion base
4 slot	XGB-M04A	XGB-E04A
6 slot	XGB-M06A	XGB-E06A
8 slot	XGB-M08A	XGB-E08A
10 slot	XGB-M10A	-
12 slot	XGB-M12A	XGB-E12A

XG5000 Cable (RS-232C)



	CPU module	I/O point
XGK	XGK-CPUH, CPUU, CPUHN, CPUUN	6,144
	XGK-CPUS, CPUA, CPUSN	3,072
	XGK-CPUE	1,536
XGI	XGI-CPUUN, CPUU/D, CPUU, CPUH	6,144
	XGI-CPUS	3,072
	XGI-CPUE	1,536

CPU Connecting Cable	
USB 301A	USB downloading cable
K1C-050A	RS-232C downloading cable

Item	Type	Description
USB cable	USB-301A	USB downloading cable
RS-232C cable	K1C-050A	RS-232C downloading cable

Item	Input module		
	AC110V	AC220V	DC24V
8 points	-	XGI-A21A	XGI-D21A
16 points	XGI-A12A	-	XGI-D22A
	-	-	XGI-D22B
32 points	-	-	XGI-D24A
	-	-	XGI-D24B
64 points	-	-	XGI-D28A
	-	-	XGI-D28B



Power module		
XGP-ACF1	AC110/220V	DC5V 3A, DC24V 0.6A
XGP-ACF2	AC110/220V	DC5V 6A
XGP-AC23	AC220V	DC5V 8.5A
XGP-AC24	AC220V	DC5V 10A
XGP-DC42	DC24V	DC5V 6A

Item	Output module		
	Relay	Triac	Transistor
8 points	XGQ-RY1A	-	XGQ-TR1C
	XGQ-RY2A	XGQ-SS2A	XGQ-TR2A
16 points	XGQ-RY2B	-	XGQ-TR2B
	-	-	XGQ-TR4A
32 points	-	-	XGQ-TR4B
	-	-	XGQ-TR8A
64 points	-	-	XGQ-TR8B

Special module		
Analog input	XGF-AV8A	Voltage input type, 8Ch
	XGF-AC8A	Current input type, 8Ch
	XGF-AD8A	Voltage/ Current input, 8Ch
	XGF-AD4S	Voltage/ Current input, 4Ch [Isolated]
	XGF-AD16A	Voltage/ Current input, 16Ch
Analog output	XGF-AW4S	2-wire, Voltage/ Current input, 4Ch [Isolated]
	XGF-DV4A	Voltage output type, 4Ch
	XGF-DC4A	Current output type, 4Ch
	XGF-DV8A	Voltage output type, 8Ch
	XGF-DC8A	Current output type, 8Ch
Analog Input/Output	XGF-DV4S	Voltage output, 4Ch [Isolated]
	XGF-DC4S	Current output, 4Ch [Isolated]
High-speed counter	XGF-AH6A	Input: 4ch, Voltage/ Current Output: 2Ch Voltage/ Current
	XGF-H02A	Pulse (OC) input type, 2Ch
Positioning	XGF-HD2A	Pulse (LD) input type, 2Ch
	XGF-PD1H-PD4H	Open collector, 1-4axes
Positioning (Network Type)	XGF-PD1H-PD4H	Line drive, 1-4axes
	XGF-PN8A	LS Standard EtherCAT Net. 8axes
	XGF-PN4B	Standard EtherCAT Net. 4axes
	XGF-PN8B	Standard EtherCAT Net. 8axes
Motion Module	XGF-PN16B	Standard EtherCAT Net. 16axes
	XGF-M32E	Standard EtherCAT Net. 8axes
	XGF-XM32E	Standard EtherCAT Net. 16axes
Temperature control	XGF-TC4S	Thermocouple input, 4Ch
	XGF-RD4A	RTD input, 4Ch
	XGF-RD4S	RTD input, 4Ch [Insulated]
Temperature controller	XGF-TC4UD	Input: 4ch.[Voltage/Current, RTD/TC] Output: 8ch.[TR/Current] Controller: 4 loops
	XGF-TC4RT	Input: 4ch.[RTD] Output: 4ch.[TR] Controller: 4 loops
Event input	XGF-S0EA	DC24V, 32points
Data log	XGF-DL16A	USB2.0, CF2001, Max 16Gbyte, 32 points 1 slot[Input 22 points, output 10 points]

Communication module		
RAPIEnet+ - RAPIEnet v2 - EtherNet/IP - Modbus TCP/IP - Dedicated XGT Network	XGL-EFMTB	Master/Client, Twisted fair 2ch.
	XGL-EFMFB	Master/Client, Fiber optic 2ch.
	XGL-EFMHB	Master/Client, Twisted fair/fiber optic
	XGL-DBDT	Expansion driver - Twisted pair 2ch.
	XGL-DBDF	Expansion driver - Fiber optic 2ch.
	XGL-DBDH	Expansion driver - Fiber optic / Twisted pair
	XGL-ES4T	Stand alone switch twisted pair 4ch.
	XGL-ES4H	Stand alone switch twisted 2ch. fiber 2ch.
	XGL-EH5T	Open Ethernet switching hub
	XGL-CH2B	RS-232C 1ch, RS-422/485 1ch
Computer Link (Cnet)	XGL-C22B	RS-232C 2ch
	XGL-C42B	RS-422/485 2ch
DeviceNet(Dnet)	XGL-DMEB	DeviceNet, Master
	XGL-DSEB	DeviceNet, Slave
Profibus-DP (Pnet)	XGL-PMEB	Profibus-DP, Master
	XGL-PSRA	Profibus-DP Slave, Remote interface
Rnet	XGL-PSEA	Profibus-DP Slave
	XGL-RMEB	Rnet, Master, TP
Fnet	GOL-RR8T	Rnet stand alone repeater hub
BACnet/IP	XGL-FMEA	Fnet, Master
	XGL-BIPT	BACnet client/server
RAPIEnet v1	XGL-EIMT	RAPIEnet, Twisted fair 2Ch
	XGL-EIMF	RAPIEnet, Fiber optic 2Ch
EtherNet/IP	XGL-EIMH	RAPIEnet, Twisted fair, Fiber optic
	XGL-EIPT	Industrial Ethernet, Twisted fair 2Ch



Specifications

Item	Description	Standard			
Ambient temperature	0 ~ 55 °C				
Storage temperature	-25 ~ +70 °C				
Ambient humidity	5 ~ 95%RH, (Non-condensing)				
Storage humidity	5 ~ 95%RH, (Non-condensing)				
Vibration resistance	Occasional vibration		10 times each direction (X, Y and Z)	IEC 61131-2	
	Frequency	Acceleration			Pulse width
	10 ≤ f < 57Hz	-			0.075mm
	57 ≤ f < 150Hz	9.8m/s ² {1G}			-
	Frequency	Acceleration			Pulse width
	10 ≤ f < 57Hz	-			0.035mm
57 ≤ f < 150Hz	4.9m/s ² {0.5G}	-			
Shock resistance	<ul style="list-style-type: none"> Peak acceleration: 147 m/s{15G} Duration: 11ms Half-sine, 3 times each direction per each axis 	IEC 61131-2			
Noise resistance	Square wave impulse noise	± 1,500 V	LSIS Standard		
	Electrostatic discharge	± 4kV	IEC 61131-2, IEC 61000-4-2		
	Radiated electromagnetic field noise	27 ~ 500 MHz, 10 V/m	IEC 61131-2, IEC 61000-4-3		
	Fast transient / Burst noise	0.25kV	IEC 61131-2, IEC 61000-4-4		
Operating Ambience	Free from corrosive gases and excessive dust				
Altitude	Up to 2,000m				
Pollution degree	Less than equal to 2				
Cooling	Air-cooling				

* Pollution degree 2 is nonconductive pollution of the sort where occasionally a temporary conductivity caused by condensation must be expected.

XGK

Item	Description			Remarks	
	XGK-CPUUN	XGK-CPUHN	XGK-CPUSN		
Operation method	Cyclic execution of stored program, Time-driven interrupt, Process-driven interrupt				
I/O control method	Batch processing by scan synchronization (Refresh), Direct input/output by instruction				
Program language	Ladder diagram, Instruction list, SFC(Sequential Function Chart), ST(Structured Text)				
Number of instructions	Basic	40			
	Application	700			
Processing speed	LD	0.0085 μ s/Step			
	MOVE	0.255 μ s/Step			
	Real number operation	±: 182.2ns (S), 327.3ns (D)		S: Single real number D: Double real number	
		×: 336ns (S), 427ns (D)			
Program capacity	256Kstep (2,048KB)	128Kstep (1,024KB)	64Kstep (512KB)		
I/O points (available to install)	6,144	6,144	3,072		
Data area	P	P00000 ~ P4095F(65,536 points)			
	M	M00000 ~ M4095F(65,536 points)			
	K	K00000 ~ K4095F(65,536 points)			
	L	L0000 ~ L11263F(180,224 points)			
	F	F0000 ~ F4095F(65,536 points)			
	T	100ms : T0000 - T2999		Timer (Adjustable)	
		10ms : T3000 - T5999			
		1ms : T6000 - T7999			
		0.1ms : T8000 - T8191			
	C	C0000 ~ C4095			
	S	S00.00 ~ S255.99			
	D	D0000 ~ D524287	D0000 ~ D262143		
	U	U0.0~U7F.31		U0.0~U3F.31	Special module data refresh area
Z	256 points				
N	N00000 ~ N21503				
R	16 block	8 block	2 block	32K word per 1 block(R0 ~ R32767)	
Flash area	2M byte, 32 blocks			Controllable by R device	
Program type	Total program	256			
	Initialization	1 [INT]			
	Time-driven	32			
	Internal	32			
Operation mode	RUN, STOP, DEBUG				
Self-diagnosis	Execution, Delay, Memory error, I/O error, Battery error, Power error			Modbus slave	
Programming port	RS-232C (1Ch), USB (1Ch)				
Data retention at power failure	Set "retain" at data declaration				
Max. expansion stage	7	3		Total length 15m	
Current consumption (mA)	960				
Weight (Kg)	0.12				

XGK

Item	Description					Remarks	
	XGK-CPUU	XGK-CPUH	XGK-CPUA	XGK-CPUS	XGK-CPUE		
Operation method	Cyclic execution of stored program, Time-driven interrupt, Process-driven interrupt					-	
I/O control method	Batch processing by scan synchronization (Refresh), Direct input/output by instruction					-	
Program language	Ladder diagram, Instruction list, SFC (Sequential Function Chart), ST (Structured Text)					-	
Number of instructions	Basic	40				-	
	Application	700				-	
Processing speed	LD	0.028 μ s/Step		0.084 μ s/Step		-	
	MOVE	0.084 μ s/Step		0.252 μ s/Step		-	
	Real number operation	\pm : 0.602 μ s (S), 1.078 μ s (D)		\pm : 1.442 μ s (S), 2.87 μ s (D)		S: Single real number D: Double real number	
		\times : 1.106 μ s (S), 2.394 μ s (D) \div : 1.134 μ s (S), 2.66 μ s (D)		\times : 1.948 μ s (S), 4.186 μ s (D) \div : 1.442 μ s (S), 4.2 μ s (D)			
Program capacity	128Kstep(512KB)	64Kstep(256KB)	32Kstep(128KB)		16Kstep(64KB)	-	
I/O points (available to install)	6,144		3,072		1,536	-	
Data area	P	P00000 - P2047F(32,768 points)				-	
	M	M00000 - M2047F(32,768 points)				-	
	K	K00000 - K2047F(32,768 points)				-	
	L	L0000 - L11263F(180,224 points)				-	
	F	F0000 - F2047F(32,768 points)				-	
	T	10ms : T1000 - T1499 1ms : T2000 - T2047		100ms : T0000 - T0999 1ms : T1500 - T1999		Change area is available by Parameter setting	
	C	C0000 - C2047				-	
	S	S00.00 - S127.99				-	
	D	D0000 - D32,767		D0000 - D19,999		-	
	U	U0.0-U7F.31		U0.0-U3F.31	U0.0-U3F.31	U0.0-U1F.31	Special module data refresh area
	Z	128 points				-	
	N	N00000 - N21503				-	
R	2 block		1 block		32K word per 1 block (R0 - R22767)		
Flash area	2M byte, 32 blocks				Controllable by R device		
Program type	Total program	256				-	
	Initialization	1 (_INT)				-	
	Time-driven	32				-	
	Internal	32				-	
Operation mode	RUN, STOP, DEBUG						
Self-diagnosis	Execution, Delay, Memory error, I/O error, Battery error, Power error					Modbus slave	
Programming port	RS-232C (1Ch), USB (1Ch)						
Data retention at power failure	Set "retain" at data declaration						
Max. expansion stage	7	3		1		Total length 15m	
Current consumption (mA)	960	940					
Weight (Kg)	0.12						

CPU

XGI-CPUZ

Item		XGI-CPUZ7	XGI-CPUZ5	XGI-CPUZ3	Note	
Operation method		Main task/Cycle task: Fixed period and cyclic operation Initialization task: Only once at the time of entering the RUN				
Control cycle		Main task time: 1ms ~ 1,000ms (1ms unit setting) Cycle task time: Multiple setting of main task (2~4,000ms)				
I/O control method		Synchronism with main task cyclic (Refresh method)				
Program language		Ladder diagram SFC (Sequential Function Chart) ST (Structured Text), G code				
Calculation processing speed (Basic Instructions)	Default(LD)	6.5 ns/command			6.5 ns/command	
	MOVE	5.2 ns/command			5.2 ns/command	
	Real calculation	±: 31 ns (S), 121 ns (D) ×: 31 ns (S), 119 ns (D) ÷: 34 ns (S), 142 ns (D)			S: Short real D: Long real Maximum performance condition	
Program memory	Capacity	10MB: sequence+motion 10MB: NC control	4MB: sequence+motion 5MB: NC control	2MB: sequence+motion 5MB: NC control		
	Quantity	Max. 256				
Configuration of program		Initial program, main task program, periodic task program, NC program				
I/O Point(Installation available)		6,144 points				
Max. I/O memory contact		131,072 points				
Command	Operator	18				
	Basic function	202				
	Basic function block	174				
	Expansion function block	Socket, file function block				
	Dedicated function block	Dedicated function blocks by special modules, dedicated function block for communication module (P2P)				
Data memory	Automatic variable(A)	4MB (2MB retain)	2MB (1MB retain)	1MB (512KB retain)		
	Input variable(I)	20KB				
	Output variable(Q)	20KB				
	Direct variable	M	2MB (1MB retain)	1MB (512KB retain)	512KB (256KB retain)	
		R	64KB x 32 block			
		W	2MB			Same area as
	Flag variable	F	128KB			System flag
		K	18KB			PID operation area
		L	22KB			High speed link flag
		N	49KB			P2P parameter
U		8KB			Analog data refresh area	
FLASH area		4 MB, 64 block			Control by R device	
Timer		No restriction on points Time range: 0.001~ 4,294,967.295sec (1,193hour)			Occupying 20 Byte of automatic variable area per point	
Counter		No restriction on points Coefficient range: 64 bit range			Occupying 20 Byte of automatic variable area per point	
Operation mode		RUN, STOP				
Restart mode		Cold, Warm				
Self-diagnosis function		Cyclic error monitoring, time share over detection of task program, detection of operation delay,memory error, input and output error, power error, etc.				
How to preserve data in case of power failure		Retain area setting in basic parameters or retain setting when setting variables				
Maximum extension base		7				
Motion control	Real/Virtual axes	Axis 32	Axis 16	Axis 8		
	Dedicated virtual axis	Axis 4	Axis 2	Axis 1		
	Slave (Real axis)	64 Slave	32 Slave	16 Slave		
	Communication	EtherCAT (CoE: CANopen over EtherCAT, FoE: File Access over EtherCAT)				
	Communication period	Same as the main task cycle				
	Servo drive support	Servo drive to support EtherCAT CoE				
	Control unit	pulse, mm, inch, degree				
	Control method	Position/velocity/torque (Servo drive support), synchronous, interpolation control				
	Position address range	± LREAL, 0				
	Speed range	± LREAL, 0				



Item		XGI-CPUZ7	XGI-CPUZ5	XGI-CPUZ3	Note	
Motion control	Torque unit	Rated torque % designation				
	Acc./Dec. processing	Trapezoid type, S-type (Setting by specifying Jerk at a function block)				
	Range of Acc./Dec.	+ LREAL ^{*note1} , 0				
	Manual Operation	Manual operation				
	Cam operation	32 profiles/32,768 points	16 profiles/16,384 points	8 profiles/8,192 points		
	Absolute position system	Available (When using an absolute encoder type servo drive)				
	Communication	Protocol	EtherCAT			
		Support specification	CoE (CANopen over EtherCAT), FoE (File Access over EtherCAT)			
		Physical layer	100BASE-TX			
		Communication speed	100Mbps			
		Topology	Daisy chain			
		Communication cable	Cat. 5 STP (Shielded twisted-pair) cable			
		Synchronous jitter between slaves	Less than 1 μs			
		Constant period communication	PDO (Process Data Object) Mapping through CoE			
		Non-synchronous communication	SDO (Service Data Object) communication through CoE			
	Max.transmission distance	100 m				
Indicates the communication status	Front LED					
External input/output (EtherCAT Remote I/O)	Max. 64 slave supported	Max. 32 slave supported	Max. 16 slave supported			
Coordinate system function (Robot)	Support robot	Cartesian, delta				
	Setting	XG5000				
	Control language	Function Block				
External memory	Memory type	Micro SD/SDHC				
	File system	FAT32				
	Maximum capacity	Mountable maximum capacity: Up to 512GB				
	Service	Program back-up/restoration, booting operation				
USB device	Characteristics	USB2.0, 1ch				
	Service	Loader service (XG5000)				
USB host	Characteristics	USB 2.0, 1ch				
	Service	Supported devices: Wi-Fi Dongle				
Wi-Fi	Characteristics	IEEE 802.11b/g/n			USB Wi-Fi Dongle function Provided by	
	Service	Loader service (XG5000) Web Server				
Built-in communication port	Ethernet	Characteristics	1 Port			
			100/1000BASE-TX			
			Auto negotiation (Full-duplex and half duplex)			
			Auto MDIX crossover			
			Up to 100M distance between nodes			
			Use UTP, STP, FTP cable			
	Service	Service setting in local Ethernet parameter of XG5000				
		Loader service (XG5000) (Multi-connection support, up to 4 people including USB)		Remote relay service supported Remote access service not supported		
		XGT server - dedicated communication		TCP supported UDP not supported		
		Third-party protocol support (MODBUS TCP server)				
		FTP server				
		NTP client				
		Web Server				
Socket service (LS electric and third-party client service correspondence)		Socket function block				
Security	Project password TLS support: Loader service, Web server, FTP server					
Screen display	Character display					
Internal consumption current	1.3A					
Weight	230g					

*Note1) LREAL range: 2.2250738585072e-308 ~ 1.79769313486232e+308
 Long real number(+ LREAL) positive range: 0 < x ≤ 1.79769313486232e+308

XGI

Item	XGI-CPUUN	XGI-CPUU/D	XGI-CPUU	XGI-CPUH	XGI-CPUS	XGI-CPUE	Remarks	
Operation system	Reiterative operation, fixed cycle operation, constant scan							
I/O Control system	Scan synchronous batch processing system(refresh system), direct system by command							
Program language	Ladder Diagram, SFC (Sequential Function Chart), ST (Structured Text)							
Operation processing speed (basic command)	Operator	18						
	Basic function	136 types + real number operation function						
	Basic function block	43						
	Dedicated function block	Dedicated function blocks by special function modules, communication dedicated function block(P2P)						
	Basic	0.0085 μ s/step	0.028 μ s/step			0.084 μ s/step		
MOVE	0.255 μ s/step	0.084 μ s/step			0.252 μ s/step			
Real number operation	\pm : 0.119 μ s(S), 0.281 μ s(D) \times : 0.272 μ s(S), 0.680 μ s(D) \div : 0.281 μ s(S), 0.685 μ s(D)	\pm : 0.392 μ s(S), 0.924 μ s(D) \times : 0.896 μ s(S), 2.240 μ s(D) \div : 0.924 μ s(S), 2.254 μ s(D)			\pm : 1.442 μ s(S), 2.87 μ s(D) \times : 1.948 μ s(S), 4.186 μ s(D) \div : 1.442 μ s(S), 4.2 μ s(D)		S: Single real number D: Double real number	
Program memory capacity	2M	1M	512KB	128KB	64KB			
I/O points (installable)	6,144 points			3,072 points	1,536 points			
Max. I/O memory contact	131,072 points			32,768 points				
Data memory	Symbolic variable area(A)	1024KB (max. 512KB retain settable)	512KB (max. 256KB retain settable)		128KB (max. 64KB retain settable)	64KB (max. 32KB retain settable)		
	I variable(I)	16KB			4KB			
	Q variable(Q)	16KB			4KB			
	Direct variable	M	512KB (max. 256KB retain settable)	256KB (max. 128KB retain settable)		64KB (max. 32KB retain settable)	32KB (max. 16KB retain settable)	
		R	64KB \times 16block		64KB \times 2block	64KB \times 1block	32KB \times 1block	
		W	1,024KB		128KB	64KByte	32KByte	R
	Flag variable	F	8KB		4KB			System flag
		K	16KB			4KB		PID flag
		L	22KB					High speed link flag
		N	42KB					P2P Parameters
U		8KB			4KB	2KB	Analog data Refresh	
Flash area	2MB, 32block					1MB, 16block		
Timer	No point limit Time range: 0.001 ~ 4,294,967.295 second(1,193 hours)					20 bytes of symbolic variable area per point		
Counter	No point limit Coefficient range : 64 bit expression					8 bytes of symbolic variable area per point		
Program structure	Total no. of programs	256						
	Initialization task	1						
	Fixed cycle task	32						
	Internal device task	32						
Operation mode	RUN, STOP, DEBUG							
Restart mode	Cold, Warm							
Self diagnosis	Operation delay monitoring, memory fault, I/O fault, battery fault, power fault and etc							
Data protection in case of power failure	Retain area setting by basic parameters							
Max. base extension	7			3	1	Total length 15m		
Current consumption (mA)	960mA			940mA				
Weight (kg)	0.12kg							

XGK/XGI CPU built-in Ethernet specification


Item	XGK-CPUSN, CPUHN, CPUUN / XGI-CPUUN	Remarks
Ethernet Feature	1 Port	-
	10/100BASE-TX	-
	Auto negotiation (Full-duplex and half duplex)	-
	Auto MDIX Crossover	-
	Max. Support 4 channel	Support 8Kbyte each send and receive channel
	Max. Distance between nodes : 100m	-
Max. Protocol size : 1500Byte	IP Fragmentation is not supported.	

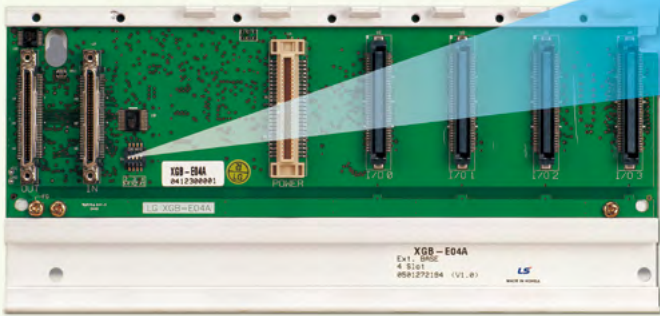
Item	XGK-CPUSN, CPUHN, CPUUN / XGI-CPUUN	Remarks	
Ethernet Service	Cable	UTP, STP, FTP cables is available FTP, STP is recommended to prevent noise	
	Service	Setting communication parameters with XG5000	-
		Loader service (XG5000 connection) supported	Remote stage 1 connection with PLC is available
		LS protocol(XGT) supported.	Server & TCP supported. Client & UDP not supported.
		Other company's protocol (Modbus TCP/IP) supported	

Expansion system composition

1. The following figure is the example of expansion system with the fixed I/O point type of XGK-CPUH.
2. The address of I/O point is adjustable by XG5000 parameter.

Switch for setting base number: 1





The lowest expansion base should be connected to the upper stage with expansion terminator(XGF-TERA).

	Slot number:	0	1	2	3	4	5	6	7	
Main base (Base number: 0)	Power	CPU	P000 - P003F	P0040 - P007F	P0080 - P011F	P0120 - P015F	P0160 - P019F	P0200 - P023F	P0240 - P027F	P0280 - P031F
Expansion cable	Power		P0640 - P067F	P0680 - P071F	P0720 - P075F	P0760 - P079F	P0800 - P083F	P0840 - P087F	P0880 - P091F	P0920 - P095F
Expansion base	Power		P1280 - P131F	P1320 - P135F	P1360 - P139F	P1400 - P143F	P1440 - P147F	P1480 - P151F	P1520 - P155F	P1560 - P159F
XGT-TERA	Power		P4680 - P451F	P4520 - P455F	P4560 - P459F	P4600 - P463F	P4640 - P467F	P4680 - P471F	P4720 - P475F	P4760 - P479F

XGT-TERA should be installed at the end of the last expansion base.