XGB-H Programmable Logic Controller

- 83ns/Step processing speed
- Upto 10 expansion modules
- Up to 704* I/O point control
- PLC systems for Small and Medium Applications
- Communication Port (RS 232C/RS 485)
- Floating-point arithmetic with on-board CPU
- Free Configuration Software XG5000/XG - PD
- Network Configuration via Ethernet and Cnet I/F
- High-speed counter, PID control
- 5-Ch Communication with built-in functions
- DIN Rail mountable

* Including both the main and expansion modules

General Specifications

Item		Description		
Temperature	Ambient	0°C to 55°C		
	Storage	-25°C to +70°C		
Ambient & Storage Humidity		5 to 95% RH (Non-condensing)		
Operating Ambience		Free from corrosive gases, excess dust		
Altitude		Up to 2000 metres		
Pollution Level		Less than 2		
Coolling		Air cooling		
Dimensions (W x H x D)	32 Point	114 x 90 x 64		
	64 Point	180 x 90 x 64		
		Frequency	**Acceleration**	**Pulse Width**
Vibration Resistance	Occassional	10 ≤ f ≤ 57Hz	-	0.075mm
		57 ≤ f ≤ 150Hz	0.5G	-
	Continuous	10 ≤ f ≤ 57Hz	-	0.035mm
		57 ≤ f ≤ 150Hz	0.5G	-

Noise Resistance

Item	Description
Square Wave Impulse Noise	+1500V
Electrostatic Discharge	4kV
Radiated Electromagnetic Field Noise	80-1000MHz, 10V/m
Fast Transient / Burst Noise	2kV

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Performance Specification

Item			XBC-DR32H*	XEC-DR32H*	XBC-DR64H*	XEC-DR64H*
Control Method			Repetitive, Cyclic, Interrupt, Constant Scan			
I/O Control Method			Refresh Mode Batch Process by Scan Synchronisation			
			Direct Mode by Instruction			
Programming Language			Ladder Diagram, Instruction List or IEC std (LD, SFC, FD)			
No. of Instructions			Basic: 28, Applied: 687			
Processing Speed			83nS / Step (for basic instruction)			
Programming Capacity			15K Step (IEC Type 200K)			
Max. I/O Points			672 points (Main +10 Exp)		704 points (Main + 10 Exp)	
DATA MEMORY - XBC	P		P0000-P1023F (16384 points)			
	M		M0000-M1023F (16384 points)			
	K		K0000-K4095F (Special Area: K2600-3339F)(65536 points)			
	L		L0000-L2047F (32768 points)			
	F		F000-F1023F (16384 points)			
	T		100ms, 10ms, 1ms: T000-T1023			
	C		C000-C1023			
	S		S00.00-S127.99			
	D		D0000-D10239 (10240 word)			
	U		U00.00-U0a.31 (Analog Refresh Area: 352 Word)			
	Z		Z000-Z127 (128 word)			
	N		N0000-N5119 (5120 word)			
	R		R0000-R10239			
Data Memory - XEC	Symbolic Variable Area (A)		32KB (Max. 16k byte retain setting available)			
	Input Variable (I)		2KB (%IX15.15.63)			
	Output Variable (Q)		2KB (%QX15.15.63)			
	Direct Variable	M	16KB (Max.8K byte retain setting available)			
		R	20KB (1block)			
		W	20KB			
	Flag Variable	F	2KB			
		K	8KB			
		L	4KB			
		N	10KB			
		U	1KB			
	Flash Area		20KB, 2blocks (Using R device)			
Number of Programs			128			
Operation Mode			RUN, STOP, DEBUG			
Self Diagnosis			Operation delay monitoring, memory error etc.			
Program Port			USB (Rev1.1), RS-232C			
Data Retention as Power Failure			Latch Range setting as Basic parameter			
Built-in Function			RS-232C, RS485, High Speed Counter, PID Control, Pulse Catch, Input Filter, External Interrupt, Positioning, RTC			
Internal Current Consumption			660mA	260mA	1040mA	330mA
Weight			660g	500g	900g	800g
Rated Voltage			AC 100-240V / (20.4 ~ 28.8VDC) for DC Models			

* DC 24V modules are available. Part number remains the same but with "/DC" at the end.

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IMO

Input Specification

Item		XBC-DR32H	XEC-DR32H	XBC-DR64H	XEC-DR64H
Input Points		16 Point		32 Point	
Rated Input Voltage		DC24V			
Rated Input Current		4mA (Contact 0-7:9mA)			
Operation Voltage Range		DC 20.4-28.8V (Ripple Rate - 5%)			
On Voltage / On Current		DC19V or more / 3mA or more			
Off Voltage / Off Current		DC6V or less / 1mA or less			
Input Resistance		5.6KΩ (P00-P07:22.7kΩ)			
Response Time	OFF ➔ ON	1/3/5/10/20/70/100 ms (Setting by CPU parameter)			
	ON ➔ OFF	Initial value :3ms			

Relay Output Specification

Item		XBC-DR32H	XEC-DR32H	XBC-DR64H	XEC-DR64H
Input Points		16 Point		32 Point	
Insulation Method		Relay Insulation			
Rated Load Voltage / Current		24V 2A (R load) / 220V 2A (COS0 =1), 5A/COM			
Min. Load Voltage / Current		DC 5V / 1mA			
Max. Load Voltage		AC 250V, DC 125V			
Off Leakage Current		0.1mA (AC 220V, 60Hz)			
Max. On / Off Frequency		3,600 times / hr			
Service Life	Mechanical	20 million times or more			
	Electrical	Rated load voltage / current 100,00 times			
		AC 200V / 1.5A, AC 240V / 1A (COS0=0.7)			
		AC 200V / 1A, AC 240V / 0.5A (COS0 = 0.35)			
		DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms)			
Response Time	OFF ➔ ON	10ms or less			
	ON ➔ OFF	12ms or less			
Common Method		4 point / COM		P20~2F: 4 point / COM	
				P30~3F: 8 point / COM	

Transistor Output Specification

Item		XBC-DN32H	XEC-DN32H	XBC-DN64H	XEC-DN64H
Output Points		16 Point		32 Point	
Insulation Method		Photo coupler insulation			
Rated Load Voltage		DC12 / 24V			
Load Voltage Range		DC 10.2~26.4V			
Max. Load Voltage		0.5A / 1 point (P20 ~ 23: 0.1A / point)			
Off Leakage Current		0.1mA or less			
Max. Inrush Current		4A / 10ms or less			
Max. Voltage Drop (on)		DC 0.4V or less			
Surge Absorber		Zener Diode			
Response Time	OFF ➔ ON	1ms or less			
	ON ➔ OFF	1ms or less (Rated load, resistive load)			
Common Method		4 point / COM		P20~2F: 4 point / COM	
				P30~3F: 8 point / COM	
External Power	Voltage	DC 12 / 24V ± 10% (ripple voltage 4 Vp~p or less)			
	Current	10mA or less (DC 24V connection)			

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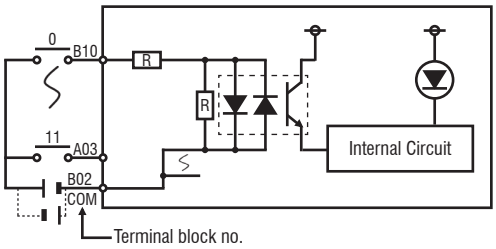
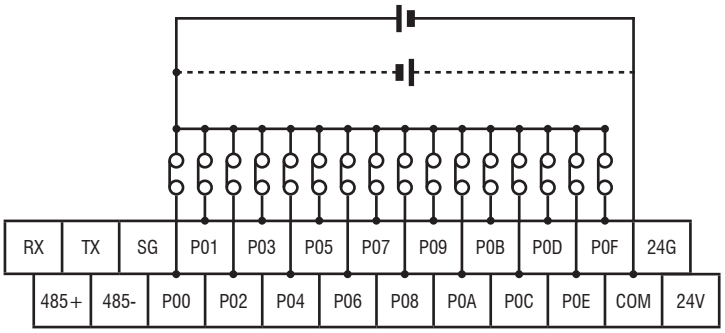
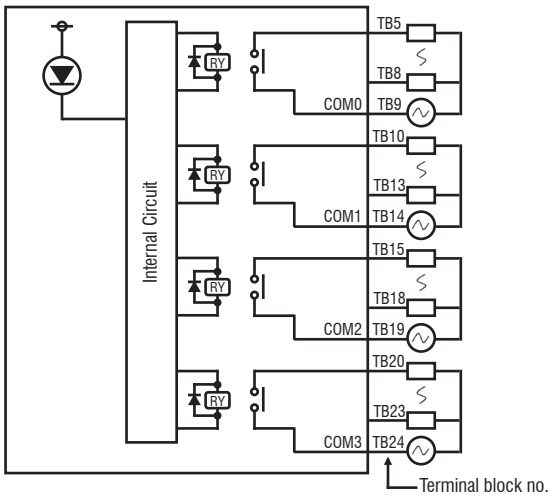
Wiring

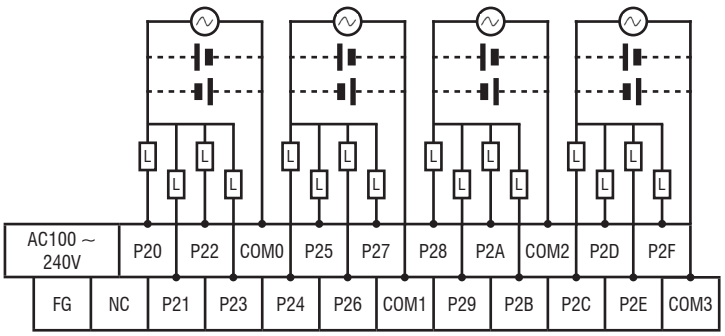
Input wiring **XBC-DR32H / XBC-DN32H / XEC-DR32H**



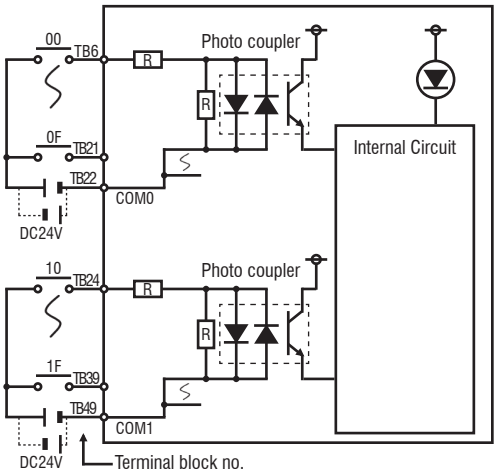


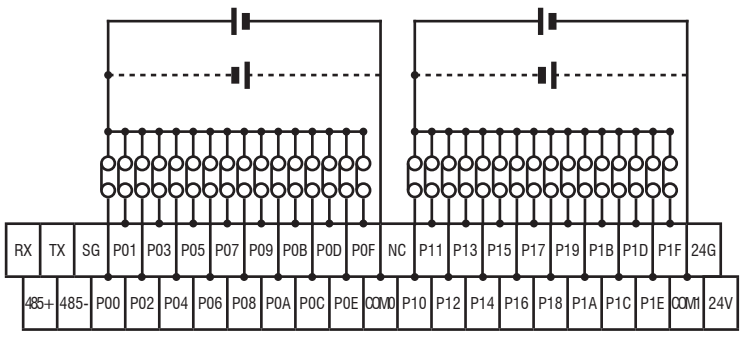
Relay output wiring **XBC-DR32H / XEC-DR32H**





Input wiring **XBC-DR64H / XBC-DN64H / XEC-DR64H**





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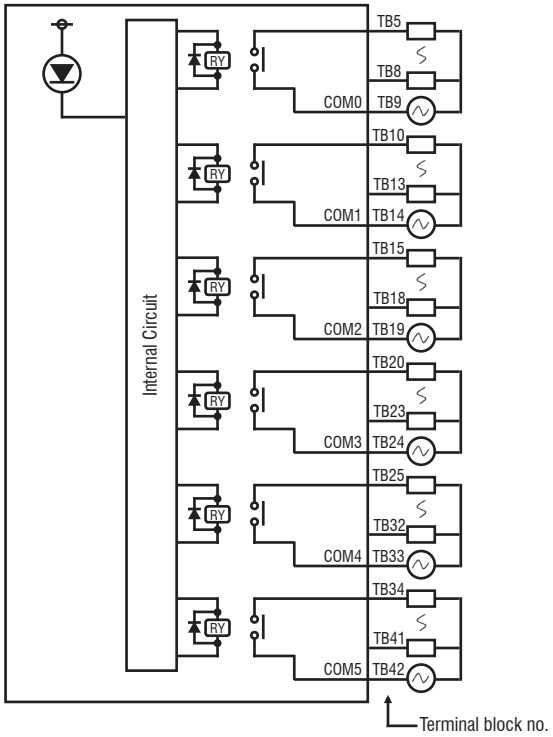
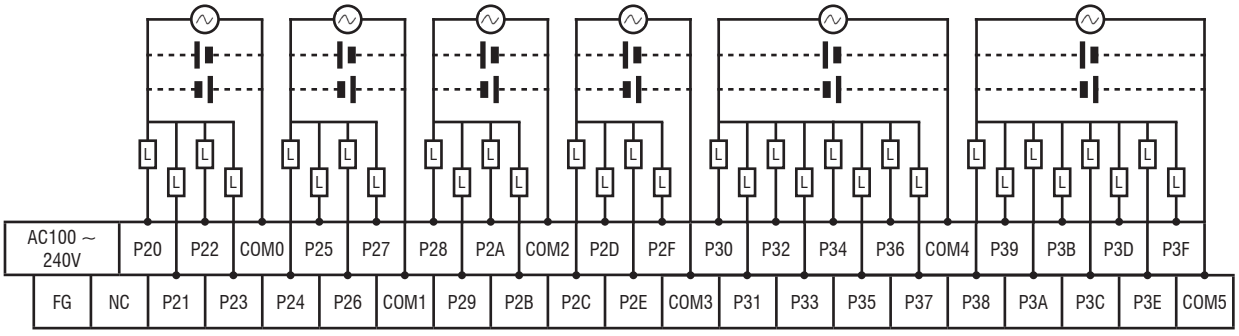
Wiring continued

Relay output wiring **XBC-DR64H / XEC-DR64H**





Addressing

XBC Input : P00-P1F ; XEC Input : I00-I31
XBC Output : P20-P3F ; XEC Output : Q00-Q31