

EQ - VB SERIES

PROGRAMMABLE LOGIC CONTROLLER (PLC)



Multi-Function

EQ- VB SERIES ▶



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EQ - VB Series Functional Specifications

Item		VB0 Series	VB1 Series	VB2 Series
Operation Control Method		Cyclic Operation by Stored Program		
Programming Language Method		Electric Ladder Diagram + SFC		
I/O Control Method		Batch Processing		
Operation Processing Time	Basic Instruction	0.375~12.56 μ s		
	Applied Instruction	Server μ s ~ Server 100 μ s		
Number of Instructions	Basic Instructions	27 (including: LDP, LDF, ANDP, ANDF, ORP, ORF and INV, etc.)		
	Stepladder Instructions	2		
	Applied Instructions	133	138	133
Operation Memory Capacity	Program Capacity (Flash ROM)	Built-in 8 K Steps	Built-in 16 K Steps	Built-in 16 K Steps
	Comment Capacity	2730 words (16 words or 8 double-words for each comment)		
	Program Comment Capacity	20,000 words or 10,000 double-words		
Max. Input / Output Points		128 points: X0~X77, Y0~Y77	256 points: X0~177, Y0~Y177	512 points: X0~377, Y0~Y377
Internal Relay	Auxiliary Relay (M)	General	3120 points: M0 ~ M1999, M4000 ~ M5119	
		Latched	2000 points: M2000 ~ M3999	
		Special	256 points: M9000 ~ M9255	
	State Relay (S)	Initial	10 points: S0 ~ S9	
		General	490 points: S10 ~ S499	
		Latched	400 points: S500 ~ S899	
Annunciator		100 points: S900 ~ S999 (Latched)		
Timer (T)	100 ms	200 points: T0 ~ T199 (Timer range: 0.1 ~ 3276.7 sec.)		
	10 ms	46 points: T200 ~ T245 (Timer range: 0.01 ~ 327.67 sec.)		
	1 ms (Retentive)	4 points: T246 ~ T249 (Timer range: 0.001 ~ 32.767 sec.)		
	100 ms (Retentive)	6 points: T250 ~ T255 (Timer range: 0.1 ~ 3276.7 sec.)		
Counter (C)	16-bit Up	General	100 points: C0 ~ C99	
		Latched	100 points: C100 ~ C199	
	32-bit Bi-directional	General	20 points: C200 ~ C219	
		Latched	15 points: C220 ~ C234	
High Speed Counter (C)	32-bit Bi-directional, Latched	1-phase Counter	11 points: C235 ~ C245 (Signal Frequency: 10 kHz Max.)	
		2-phase Counter	5 points: C246 ~ C250 (Signal Frequency: 10 kHz Max.)	
		A/B Phase Counter	5 points: C251 ~ C255 (Signal Frequency: 5 kHz Max.)	
Data Register (D)	General	7680 points: D0 ~ D6999, D7512 ~ D8191		
	Latched	512 points: D7000 ~ D7511		
	File Register	7000 points: D1000 ~ D7999		
	Special	256 points: D9000 ~ D9255		
	Index	16 points: V0 ~ V7, Z0 ~ Z7		
Pointer	Call Pointer (P)	256 points: P0 ~ P255		
	Interrupt Pointer (I)	15 points: 6 points for external interrupt, 3 points for timer interrupt, and 6 points for counter interrupt		
	Nest Pointer (N)	8 points: N0 ~ N7		
Range of Constants	Decimal (K)	16 Bits	-32768 ~ 32767	
		32 Bits	-2147483648 ~ 2147483647	
	Hexadecimal (H)	16 Bits	0H ~ FFFFH	
		32 Bits	0H ~ FFFFFFFFH	
Hardware 32-bit Bi-directional High Speed Counter		—	2 channels; Max. 200 kHz	—
Pulse Output		2 points; Max. 7 kHz	2 points; 20 kHz & 2 points; 200 kHz	2 points; Max. 7 kHz
Programming Device Link Interface		RS-232C		
Communication Link Interface (Optional)		RS-232C or RS-422 / RS-485		
Real Time Clock (Optional)		To indicates year, month, day, hour, min., sec. and week		
The Number of Special Modules Limited		4 Special Modules Max.	8 Special Modules Max.	16 Special Modules Max.
Multi-Functional Displayer		128 points (16 X 8 LED) displayer for I/O status and information		
Analog Potentiometers		2 Analog Rotary Potentiometers, each one can be setting as 0~255		

EQ - VB Series Product List

Item	Model No.	Specifications	Exterior
VB0 Series Main Unit	VB0-14M★--◆	8 points DC24V Signal Input; 6 points output; the barrier terminal style I/O	Drawing A
	VB0-20M★--◆	12 points DC24V Signal input; 8 points output; the barrier terminal style I/O	
	VB0-28M★--◆	16 points DC24V Signal input; 12 points output; the barrier terminal style I/O	
	VB0-32M★--◆	16 points DC24V Signal input; 16 points output; the barrier terminal style I/O	
	VB0-32M★--◆C	16 points DC24V Signal input; 16 points output; the ATX connector I/O (including cables)	
VB1 Series Main Unit	VB1-14MT-D	DC24V power input, 8 points DC24V Signal input; 6 points NPN transistor output; the barrier terminal style I/O	Drawing B
	VB1-24MT-D	DC24V power input, 14 points DC24V Signal input; 10 points NPN transistor output; the barrier terminal style I/O	
	VB1-32MT-D	DC24V power input, 16 points DC24V Signal input; 16 points NPN transistor output; the barrier terminal style I/O	
VB2 Series Main Unit	VB2-16M★--◆	8 points DC24V Signal input; 8 points output; the barrier terminal style I/O	Drawing A
	VB2-32M★--◆	16 points DC24V Signal input; 16 points output; the barrier terminal style I/O	
	VB2-32M★--◆C	16 points DC24V Signal input; 16 points output; the ATX connector I/O (including cables)	
Expansion Unit	VB-32E★--◆	16 points DC24V Signal input; 16 points output; the barrier terminal style I/O	Drawing B
	VB-32E★--◆C	16 points DC24V Signal input; 16 points output; the ATX connector I/O (including cables)	
Expansion Module	VB-32XY★	16 points DC24V Signal input; 16 points output; the barrier terminal style I/O	Drawing B
	VB-16XY★	8 points DC24V Signal input; 8 points output; the barrier terminal style I/O	
	VB-16X	16 points DC24V Signal input; the barrier terminal style Input	
	VB-16Y★	16 points output; the barrier terminal style output	Drawing A
	VB-8XY★	4 points DC24V Signal input; 4 points output; the barrier terminal style I/O	
	VB-8X	8 points DC24V Signal input; the barrier terminal style Input	
	VB-8Y★	8 points output; the barrier terminal style output	Drawing B
	VB-32XY★-C	16 points DC24V Signal input; 16 points output; the ATX connector I/O (including cables)	
	VB-16XY★-C	8 points DC24V Signal input; 8 points output; the ATX connector I/O (including cables)	
	VB-16X-C	16 points DC24V Signal input; the ATX connector Input (including cables)	
	VB-8X-C	8 points DC24V Signal input; the ATX connector Input (including cables)	
	VB-8Y★-C	8 points output; the ATX connector output (including cables)	
	VB-4AD	4 channels, 12-bit resolution Analog Input Module; selectable Voltage or Circuit Input	
VB-2DA	2 channels, 12-bit resolution Analog output Module; selectable Voltage or Circuit Input		
VB-4DA	4 channels, 8-bit resolution Analog output Module; selectable Voltage or Circuit Input		
VB-3A	2 channels Input, 1 channel Output, 12-bit resolution Analog I/O Module; selectable Voltage or Circuit I/O		
VB-6A	4 channels Input, 2 channel Output, 12-bit resolution Analog I/O Module; selectable Voltage or Circuit I/O		
VB-2VC	2 channels Valve Controls Modules; 12-bit DAC, up to 1.111A/Ch		
VB-4T	4 channels temperature input module	K/J type thermocouple inputs, 0.1°C (0.18°F) resolution, Equipped with the cold junction compensation, open circuit detection and digital filter	
VB-8T	8 channels temperature input module		
VB-2PT	2 channels temperature input module	3-wire PT-100 3850PPM/°C, 0.1°C (0.18°F) resolution, Equipped with open circuit detection and digital filter	
VB-4PT	4 channels temperature input module		
VB-2LC	2 channels temperature control module	K/J type thermocouple or 3-wire PT-100 3850PPM/°C inputs, 0.1°C (0.18°F) resolution, Support CT input for observe current, Open-collector output to perform PID control, Auto Tuning and provide 14 alarm modes	
VB-1PG	Single-axle pulse output position control module; Output pulse frequency: 10 pps ~ 100 Kpps		
VB-1HC	1 channels High-Speed Counter module; MAX.45 kHz Input; 2 hardware comparator outputs		
VB-1COM	Serial-line communication module; Photocoupler Isolated RS-232/RS-485 interface; communication Distance of RS-485 is up to 1,000M 3280'		
VB-PWR	Power Expansion Module; Input: AC 85V ~ 264V; Output: DC5V, 0.4A / DC12V, 0.8A for linked modules and DC24V, 0.5A for sensors		
Communication Module	VB-485A	RS 485 communication Module; Photocoupler Isolated; Max. Distance:1000M 3280'	Drawing B
	VB-CADP	Dual-Port Communication Expansion module; one Isolated RS-232/485 port and one Isolated RS-485 port; Max. Distance:1,000M 3280' (RS-232:15M 49')	
Communication Card	VB-232	RS-232C Communication Expansion Card	Drawing B
	VB-485	RS-422/RS-485 communication Expansion Card, non-Isolated; Max. Distance:50M 164'	
Memory Card Slot Expansion Card	VB-MP1R	16K Steps Flash ROM Program Memory Card (Only 8K Steps for the VB0); including the RTC (Real Time Clock)function	-
	VB-RTC	RTC (Real Time Clock) Expansion Card	
	VB-DB1R	128K Words Data Storage Expansion Card; including the RTC (Real Time Clock) function	
Connection Cable	VBUSB-200	Cable between a PLC (CP1 A-type USB) and Computer A-type USB Port; Length :200cm 6'7"	-
	MWPC-200	Cable between a PLC (CP1 A-type USB) and Computer (9-pin female connector); Length :200cm 6'7"	
	VBEC-050	VB series PLC Expansion Extended Cable; Length :50cm 19.7"	
	VBEC-100	VB series PLC Expansion Extended Cable; Length :100cm 3'3"	

★-- Output type
◆-- Power type

R: relay output

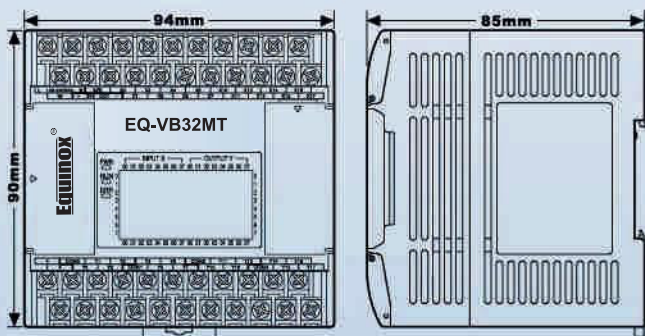
T: NPN transistor output

P: PNP transistor output

A: AC 85V ~ 264V input ; with DC24V 420mA output

D: DC24V -15% / +20% input

Drawing A



Drawing B

