VIGOR VS系列可程式控制器簡介

前言

Vs系列可程式控制器是本公司累積多年經驗，因應市場需求，而全新研製的新一代PLC。功能更強大，執行更快速，組合更多元，更具競爭力。

VS系列家族包含VS1基本型，VS2通用型，VSM運動控制型及VS3高功能型控制器。提供從基本控制到高功能應用完整產品線，取得兼顧價格及功能的最佳組合。透過"最適產品"的設計理念，提昇產品競爭力。

本文件僅簡單介紹VS系列控制器。關於控制器的詳細規格、安裝說明請參閱"VS系列PLC產品說明書"。關於程式編寫，請參閱"VS系列PLC程式編輯說明書"。

系統構成

程式編輯工具（編程插槽 USB）
PC軟體 Ladder Master S

記憶卡（記憶卡槽 MC）
VS-MC　VS-MCR

DIO擴充卡（擴充卡槽 EC1~EC3）
VS-4XYR-EC　VS-4XYT-EC
VS-4X-EC　VS-4YR-EC
VS-4YT-EC　VS-8XYR-EC
VS-8XYT-EC　VS-8X-EC
VS-8YT-EC　VS-8XI-EC
VS-8YTI-EC

通訊擴充卡
VS-485-EC　VS-D485-EC
VS-485A-EC　VS-D485A-EC
VS-232-EC　VS-D232-EC
VS-D52A-EC　VS-ENET2-EC

特殊擴充卡
VS-3AV-EC　VS-4AD-EC
VS-2DA-EC　VS-4A-EC
VS-3ISC-EC　VS-2TC-EC
VS-4TC-EC　VS-1PT-EC
VS-2PT-EC

※VS1系列除VS-3AV-EC卡以外，僅可再安裝1個特殊卡

主 機
VS1-10M★-D
VS1-14M★-D
VS1-20M★-D
VS1-24M★-D
VS1-28M★-D
VS1-32M★-D
VS1-32MT-DI

VS2-24M★-D
VS2-32M★-D
VS2-32MT-DI

VSM-14MT-D
VSM-24MT-D
VSM-32MT-D
VSM-28ML-D
VSM-32MT-DI

VS3-32M★-D
VS3-32MT-DI

★表示輸出之形式
R：2A繼電器輸出
T：0.5A NPN電晶體輸出
P：0.5A PNP電晶體輸出

外型尺寸：W×H×D(mm)
10/14M主機：70×90×65
20/24M主機：100×90×65
28/32M主機：130×90×65

擴充槽

DIO擴充模組
VS-8XY★　VS-8X
VS-8Y★　VS-16XY★
VS-16X　VS-16Y★
VS-28XYR　VS-32XY★
VS-16XYT-I　VS-16X-I
VS-16YT-I　VS-32XYT-I
VS-PSD

VS-32XY專用擴充卡
VS-E8X-EC　VS-E8YT-EC

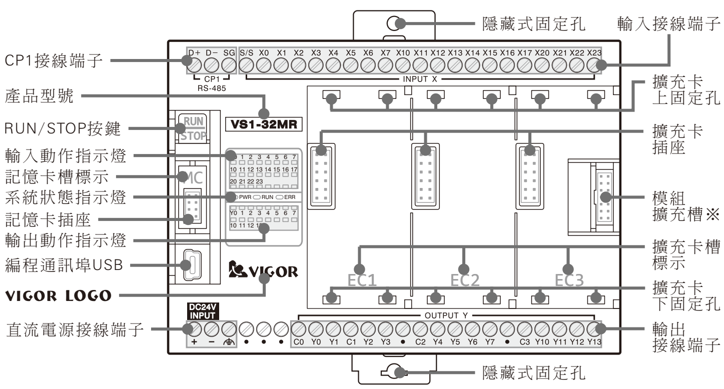
特殊模組
VS-4AD　VS-2DA
VS-3A　VS-6A
VS-4TC　VS-8TC
VS-2PT　VS-4PT
VS-2PG　VS-4PG
VS-1LC　VS-2LC

週邊產品
VSPC-200A
VSEC-050/100
VB-T8M/16M　VB-T8R/RS
VB-T16TB　VB-HT214
VBIDC-050/100/150
VBIDC-200/250/300
VBIW-050/100/200/300
VBIDC-FC100/FC250
VBIDC-HD20/HD100

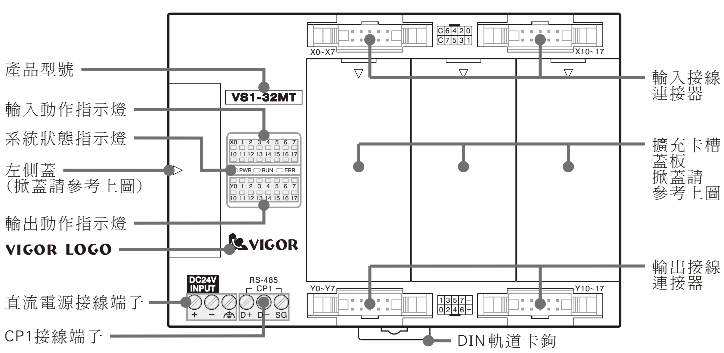
各部位名稱

● VS1-32M主機(VS1主機、VS2主機、VSM主機及VS3主機參考)

※ VS1-24/20/14/10M主機及VSM-14M主機不具備模組擴充槽。



● VS1-32MT-DI主機(VS2/VSM/VS3-32MT-DI主機參考)



銘牌說明

● 銘牌說明(銘牌貼於控制器右側邊)

功能規格表

項目			VS1系列	VS2系列	VSM系列	VS3系列
控制方式/輸出入控制方式			程式儲存，循環掃描方式/總括處理方式			
程式語言			(階梯圖＋SFC順序功能圖)或(階梯圖＋步進階梯圖)			
執行速度	基本指令/應用指令		0.17 μS/數 μS～數百 μS			0.15 μS/同左
基本指令數目/應用指令數目			29個/186個	29個/188個	29個/188個	29個/226個
專案記憶體容量(Flash ROM)			16K Words	32K Words	32K Words	64K Words
最大輸出入點數			128點＋擴充卡24點	256點＋擴充卡24點	256點＋擴充卡24點	512點＋擴充卡24點
輸出入繼電器	輸入繼電器(X)		64點 X0～X77	128點 X0～X177	128點 X0～X177	256點 X0～X377
	輸出繼電器(Y)		64點 Y0～Y77	128點 Y0～Y177	128點 Y0～Y177	256點 Y0～Y377
內部繼電器	輔助繼電器(M)	一般用途	6192點 M0～M1999，M4000～M8191			
		停電保持	2000點 M2000～M3999			
		特殊用途	512點 M9000～M9511			
	步進繼電器(S)	初始用	10點 S0～S9			
		一般用途	3086點 S10～S499，S1500～S4095			
		停電保持	900點 S500～S899，S1000～S1499			
		警示用	100點 S900～S999 (停電保持)			
計時器(T)	100mS/10mS/1mS		200點T0～T199/46點T200～T245/256點T256～T511			
	1mS/100mS(積算型)		4點T246～T249/6點T250～T255			
計數器(C)	16位元上數	一般用途	100點 C0～C99 (計數範圍0～32,767)			
		停電保持	100點 C100～C199 (計數範圍0～32,767)			
	32位元上下數	一般用途	20點 C200～C219 (計數範圍-2,147,483,648～2,147,483,647)			
		停電保持	15點 C220～C234 (計數範圍-2,147,483,648～2,147,483,647)			
軟體高速計數器	32位元上下數停電保持	單相計數	11點 C235～C245 (計數範圍-2,147,483,648～2,147,483,647)			
		雙相計數	5點 C246～C250 (計數範圍-2,147,483,648～2,147,483,647)			
		AB相	5點 C251～C255 (計數範圍-2,147,483,648～2,147,483,647)			
硬體AB相高速計數器			2點 HHSC1～HHSC2 (計數範圍-2,147,483,648～2,147,483,647)			
暫存器	一般用途(D)		7000點 D0～D6999			
	停電保持(D)		2000點 D7000～D8999			
	特殊用途(D)		512點 D9000～D9511			
	索引暫存器(V，Z)		16點 V0～V7，Z0～Z7			
	擴充暫存器(R)		10000點 R0～R9999			24000點 R0～23999
指標	程式指標/分歧指標		程式指標由8個中文字或16個英文數字組成/分歧指標 P0～P1023，共1024點			
	表格名稱/表格指標		表格名稱由8個中文字或16個英文數字組成/表格指標Q0～Q31，共32點			
	中斷指標(I)		21點 外部中斷8點，定時中斷3點，高速計數器中斷10點			
	巢狀指標(N)		8點 N0～N7			
數值系統			10進位(K)、16進位(H)、實數(E)			
通訊功能	主機內建通訊埠	編程通訊	USB高速通訊界面，通訊速率高達12Mbps(Mini USB插座)			
		機能通訊	CP1(RS-485)具備電腦連結、MODBUS、CPU Link及Non Protocol等多功能通訊			
	擴充多功能通訊埠		CP2～3(EC1裝通訊卡)，VS1韌體版本V1.6以上開始支援CP3			CP2～5(裝通訊卡)
多功能高速輸入			具備外部中斷、軟硬體高速計數、脈波抓取、脈波量測及電子手輪等功能			
			8點10KHz	8點50KHz	4點200KHz+4點50KHz※	
高速脈波輸出(MT機型)			4點50KHz	4點50KHz	4點200KHz※	4點200KHz
萬年曆(選購配備)			安裝VS-MCR多功能記憶卡，可表示年、月、日、時、分、秒、週			
記憶卡(VS-MC、VS-MCR)			16Mb免電池停保記憶體，可存放專案並具備655,360個words資料儲存空間			
擴充卡(EC1～EC3)			DIO卡、通訊卡、特殊功能卡(類比輸出入、溫度輸入、變頻器控速等)			
可安裝特殊模組數/特殊卡數			0個/1個	8個/3個	8個/3個	16個/3個

※VSM-28ML機型之多功能高速輸入為(4點1MHz+4點50KHz)，高速脈波輸出為(4點1MHz)。

機型一覽表

品名	型號	規格	
VS1系列主機	VS1-10/14M★-D	6/8點DC24V輸入，4/6點輸出，可擴充1個擴充卡	16K Words專案記憶體 8點10KHz高速輸入 MT機型4點50KHz高速輸出 接線採用端子台
	VS1-20/24M★-D	12/14點DC24V輸入，8/10點輸出，可擴充2個擴充卡	
	VS1-28/32M★-D	16/20點DC24V輸入，12點輸出，可擴充DIO模組及3個擴充卡	
	VS1-32MT-DI	16點DC24V輸入，16點100mA NPN電晶體輸出，功能同VS1-32M，接線採用IDC連接器	
VS2系列主機	VS2-24M★-D	12點DC24V輸入，12點輸出，可擴充DIO模組、8個特殊模組及2個擴充卡	32K Words專案記憶體 8點50KHz高速輸入 MT機型4點50KHz高速輸出 接線採用端子台
	VS2-32M★-D	16點DC24V輸入，16點輸出，可擴充DIO模組、8個特殊模組及3個擴充卡	
	VS2-32MT-DI	16點DC24V輸入，16點100mA NPN電晶體輸出，功能同VS2-32M，接線採用IDC連接器	
VSM系列主機	VSM-14MT-D	8點DC24V輸入，6點0.5A NPN電晶體輸出，1個擴充卡	32K Words專案記憶體 (4點200KHz+4點50KHz)高速輸入 4點200KHz高速輸出 接線採用端子台
	VSM-24MT-D	12點DC24V輸入，12點0.5A NPN電晶體輸出，可擴充DIO模組、8個特殊模組及2個擴充卡	
	VSM-32MT-D	16點DC24V輸入，16點0.5A NPN電晶體輸出，可擴充DIO模組、8個特殊模組及3個擴充卡	
	VSM-28ML-D	32K Words專案記憶體，4點差動輸入(1MHz)，12點DC24V輸入(4點50KHz)，8點線驅動輸出(4點1MHz)，4點0.5A NPN電晶體輸出，可擴充DIO模組、8個特殊模組及3個擴充卡	
	VSM-32MT-DI	16點DC24V輸入，16點100mA NPN電晶體輸出，功能同VSM-32M，接線採用IDC連接器	
VS3系列主機	VS3-32M★-D	64K Words專案記憶體，16點DC24V輸入(4點200KHz+4點50KHz)，16點輸出(MT機型4點200KHz)，可擴充DIO模組、16個特殊模組及3個擴充卡，接線採用端子台	
	VS3-32MT-DI	16點DC24V輸入，16點100mA NPN電晶體輸出，功能同VS3-32M，接線採用IDC連接器	
DIO擴充模組	VS-8X/16X	DIO模組，8/16點DC24V輸入，接線採用端子台	
	VS-8Y★/16Y★	DIO模組，8/16點輸出，接線採用端子台	
	VS-8XY★/16XY★	DIO模組，4/8點DC24V輸入，4/8點輸出，接線採用端子台	
	VS-28XYR	DIO模組，16點DC24V輸入，12點繼電器輸出，接線採用端子台	
	VS-32XY★	DIO模組，16點DC24V輸入，16點輸出，接線採用端子台	
	VS-16X/16YT-I	DIO模組，16點DC24V輸入/16點100mA NPN電晶體輸出，接線採用IDC連接器	
	VS-16XYT/32XYT-I	DIO模組，8/16點DC24V輸入，8/16點100mA NPN電晶體輸出，接線採用IDC連接器	
	VS-PSD	電源中繼模組，電源輸入DC24V，電源輸出DC5V 500mA及DC12V 800mA	
特殊模組	VS-4AD	類比輸入模組，4點16bits輸入，可任意選擇電壓或電流形式	
	VS-2DA	類比輸出模組，2點16bits輸出，可任意選擇電壓或電流形式	
	VS-3A/6A	類比輸入輸出模組，2/4點16bits輸入，1/2點16bits輸出，可任意選擇電壓或電流形式	
	VS-4TC/8TC	溫度輸入模組，4/8點Thermo Couple輸入，解析度0.1℃	
	VS-2PT/4PT	溫度輸入模組，2/4點3線式PT100輸入，解析度0.1℃	
	VS-2PG/4PG	脈波輸出定位模組，2/4軸定位控制，輸出脈波頻率200KHz	
	VS-1LC/2LC	重量量測模組，1/2點6線式Load Cell信號輸入	
DIO擴充卡	VS-4X/8X-EC	DIO擴充卡，4/8點DC24V輸入，接線採用端子台	
	VS-4YR/T-EC	DIO擴充卡，4點2A繼電器/0.3A NPN電晶體輸出，接線採用端子台	
	VS-8YT-EC	DIO擴充卡，8點0.3A NPN電晶體輸出，接線採用端子台	
	VS-4XYR/T-EC	DIO擴充卡，2點DC24V輸入，2點2A繼電器/0.3A NPN電晶體輸出，接線採用端子台	
	VS-8XYR/T-EC	DIO擴充卡，4點DC24V輸入，4點2A繼電器/0.3A NPN電晶體輸出，接線採用端子台	
	VS-8XI/8YTI-EC	DIO擴充卡，8點DC24V輸入/8點100mA NPN電晶體輸出，接線採用IDC連接器	
	VS-E8X-EC	VS-32XY模組專用擴充卡，8點DC24V輸入，接線採用端子台	
	VS-E8YT-EC	VS-32XY模組專用擴充卡，8點0.3A NPN電晶體輸出，接線採用端子台	
通訊擴充卡	VS-485/D485-EC	通訊擴充卡，一組/兩組非隔離式RS-485通訊界面，具備通訊指示燈，通訊距離50公尺	
	VS-485A/D485A-EC	通訊擴充卡，一組/兩組隔離式RS-485通訊界面，具備通訊指示燈，通訊距離1000公尺	
	VS-232/D232-EC	通訊擴充卡，一組/兩組非隔離式RS-232C通訊界面，具備通訊指示燈，接線採用端子台	
	VS-D52A-EC	通訊擴充卡，一組隔離式RS-485及一組非隔離式RS-232C通訊界面，具備通訊指示燈	
	VS-ENET2-EC	通訊擴充卡，一組Ethernet附帶非隔離RS-485界面，及一組非隔離RS-485界面	
特殊擴充卡	VS-3AV-EC	簡易類比擴充卡，非隔離，2點12bits(0～10V)輸入，1點10bits(0～10V)輸出	
	VS-4AD-EC	類比輸入擴充卡，非隔離，4點12bits輸入，可任意選擇電壓或電流形式	
	VS-2DA-EC	類比輸出擴充卡，非隔離，2點12bits輸出，可任意選擇電壓或電流形式	
	VS-4A-EC	類比輸出入擴充卡，非隔離，2點12bits輸入，2點12bits輸出，可選擇電壓或電流形式	
	VS-3ISC-EC	變頻器控速擴充卡，3組完全隔離之變頻器速度控制回路，解析度0.1%	
	VS-2TC/4TC-EC	溫度輸入擴充卡，非隔離，2/4點Thermo Couple輸入，解析度0.2～0.3℃	
	VS-1PT/2PT-EC	溫度輸入擴充卡，非隔離，1/2點3線式PT100輸入，解析度0.1℃	
記憶卡	VS-MC/MCR	記憶卡，16Mb免電池停保記憶體，具備專案及大量資料儲存功能，MCR具備RTC功能	

★表示輸出之形式 R:2A繼電器輸出　T:0.5A NPN電晶體輸出　P:0.5A PNP電晶體輸出

2023.05

VIGOR VS Series Programmable Controller Brief Introduction

Forward

The VS series is based on decades of experience and the demand of the automation market to create the brand new PLC. It is More Effective, More Powerful, More Diverse and More Competitive Advantage.

The VS Family includes the VS1 (General), VS2 (Advanced), VSM (Motion Control) and VS3 (High Performance) PLCs. Because of the all-inclusive product line, the usable coverage is from simple to complex control. Furthermore, by the concept of "The Most Suitable Product" to get superb cost-effective product combination.

This document provides a brief introduce about the VS series controller. For more description about the specification and installation, please refer to the "VS Series PLC Product Manual"; about the programming, please refer to the "VS Series PLC Programming Manual".

System Composition

Programming Tool
Software: Ladder Master S

Prog. Port (Mini USB)

Memory Card
VS-MC　VS-MCR

Memory Card Socket

DIO Expansion Card
VS-4XYR-EC　VS-4XYT-EC
VS-4X-EC　VS-4YR-EC
VS-4YT-EC　VS-8XYR-EC
VS-8XYT-EC　VS-8X-EC
VS-8YT-EC　VS-8XI-EC
VS-8YTI-EC

Expansion Card Socket EC1~EC3

Communication Expansion Card
VS-485-EC　VS-D485-EC
VS-485A-EC　VS-D485A-EC
VS-232-EC　VS-D232-EC
VS-D52A-EC　VS-ENET2-EC

Special Function Card
VS-3AV-EC　VS-4AD-EC
VS-2DA-EC　VS-4A-EC
VS-3ISC-EC　VS-2TC-EC
VS-4TC-EC　VS-1PT-EC
VS-2PT-EC

Δ The VS1 Series accepts only one Special Function Card in addition to the VS-3AV-EC card.

Main Unit
VS1-10M★-D
VS1-14M★-D
VS1-20M★-D
VS1-24M★-D
VS1-28M★-D
VS1-32M★-D
VS1-32MT-DI

VS2-24M★-D
VS2-32M★-D
VS2-32MT-DI

VSM-14MT-D
VSM-24MT-D
VSM-32MT-D
VSM-28ML-D
VSM-32MT-DI

VS3-32M★-D
VS3-32MT-DI

★Type of Output
R : 2A relay output
T : 0.5A NPN transistor output
P : 0.5A PNP transistor output

Product Dimension:W×H×D(mm)
10/14M Main Unit: 70×90×65
20/24M Main Unit: 100×90×65
28/32M Main Unit: 130×90×65

Exp. Slot

DIO Expansion Module
VS-8XY★　VS-8X
VS-8Y★　VS-16XY★
VS-16X　VS-16Y★
VS-28XYR　VS-32XY★
VS-16XYT-I　VS-16X-I
VS-16YT-I　VS-32XYT-I
VS-PSD

DIO Exp. Card for the VS-32XY★
VS-E8X-EC　VS-E8YT-EC

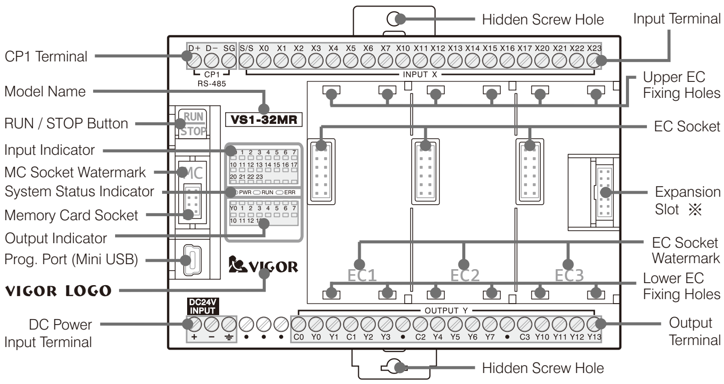
Special Module
VS-4AD　VS-2DA
VS-3A　VS-6A
VS-4TC　VS-8TC
VS-2PT　VS-4PT
VS-2PG　VS-4PG
VS-1LC　VS-2LC

Peripheral Product
VSPC-200A
VSEC-050/100
VB-T8M/16M　VB-T8R/RS
VB-T16TB　VB-HT214
VBIDC-050/100/150
VBIDC-200/250/300
VBIW-050/100/200/300
VBIDC-FC100/FC250
VBIDC-HD20/HD100

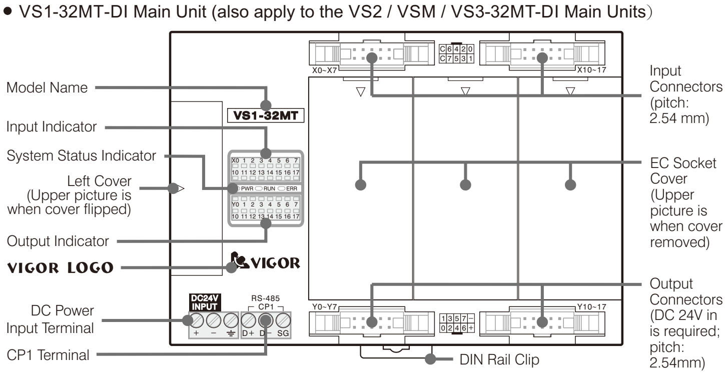
※VS1-24/20/14/10M and VSM-14M Main Unit are **NOT** equipped with the Expansion Slot for any module.

Component Designation

• VS1-32M Main Unit (also apply to the VS1 / VS2 / VSM / VS3 Main Units)

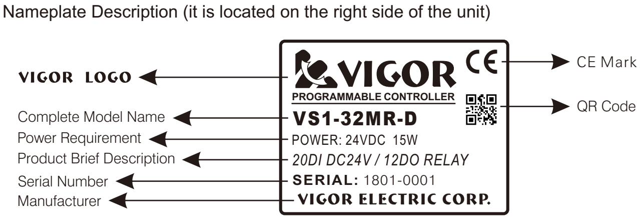


• VS1-32MT-DI Main Unit (also apply to the VS2 / VSM / VS3-32MT-DI Main Units)



Nameplate Description

• Nameplate Description (it is located on the right side of the unit)



Performance Specification

Item			VS1 Series	VS2 Series	VSM Series	VS3 Series
Operation / DIO Control Method			Cyclic Operation by Stored Program / Batch Processing			
Programming Language			Ladder Diagram + Sequential Function Chart (SFC) or Ladder Diagram + Step Ladder (STL)			
Process Time	Basic Instruction		0.17 μs			0.15 μs
	Application Instruction		A few μs ~ Hundreds of μs			
Basic Ins. No. / Application Ins. No.			29 / 186	29 / 188	29 / 188	29 / 226
Project Memory Capacity (Flash ROM)			16K Words	32K Words	32K Words	64K Words
Max. Input / Output Points			128 + 24 (at EC card)	256 + 24 (at EC card)	256 + 24 (at EC card)	512 + 24 (at EC card)
Max. Digital Input / Output	External Input (X)		64 points: X0 ~ X77	128 points: X0 ~ X177	128 points: X0 ~ X177	256 points: X0 ~ X377
	External Output (Y)		64 points: Y0 ~ Y77	128 points: Y0 ~ Y177	128 points: Y0 ~ Y177	256 points: Y0 ~ Y377
Internal Relay	Auxiliary Relay (M)	General	6192 points: M0 ~ M1999, M4000 ~ M8191			
		Latched	2000 points: M2000 ~ M3999			
		Special	512 points: M9000 ~ M9511			
	Step Relay (S)	Initial	10 points: S0 ~ S9			
		General	3086 points: S10 ~ S499, S1500 ~ S4095			
		Latched	900 points: S500 ~ S899, S1000 ~ S1499			
		Annunciator	100 points: S900 ~ S999 (Latched)			
Timer (T)	100ms / 10ms / 1ms		200 pt: T0~T199 (3276.7s Max.) / 46 pt: T200~T245 (327.67s Max.) / 256 pt: T256~T511 (32.767s Max.)			
	1ms / 100ms (Retentive)		4 pt: T246 ~ T249 (32.767s Max.) / 6 pt: T250 ~ T255 (3276.7s Max.)			
Counter (C)	16-bit Up	General	100 points: C0 ~ C99 (Range: 0 ~ 32,767)			
		Latched	100 points: C100 ~ C199 (Range: 0 ~ 32,767)			
	32-bit Up / Down	General	20 points: C200 ~ C219 (Range: –2,147,483,648 ~ 2,147,483,647)			
		Latched	15 points: C220 ~ C234 (Range: –2,147,483,648 ~ 2,147,483,647)			
Software High Speed Counter (C)	32-bit Up / Down, Latched	1-Phase	11 points: C235 ~ C245 (Range: –2,147,483,648 ~ 2,147,483,647)			
		2-Phase	5 points: C246 ~ C250 (Range: –2,147,483,648 ~ 2,147,483,647)			
		A/B Phase	5 points: C251 ~ C255 (Range: –2,147,483,648 ~ 2,147,483,647)			
Hardware High Speed Counter			2 points: HHSC1 ~ HHSC2 (Range: –2,147,483,648 ~ 2,147,483,647)			
Data Register	General (D)		7000 points: D0 ~ D6999			
	Latched (D)		2000 points: D7000 ~ D8999			
	Special (SD)		512 points: D9000 ~ D9511			
	Index Register (V / Z)		16 points: V0 ~ V7, Z0 ~ Z7			
	Extension Register (R)		10000 points: R0 ~ R9999			24000 points: R0~23999
Pointer	Mark / Branch Pointer (P)		1024 points: Each pointer can be named by P0 ~ P1023 or 16 characters			
	Table Nickname / Code (Q)		32 points: Each table can be named by Q0 ~ Q31 or 16 characters			
	Interrupt Pointer (I)		21 points: 8 for external interrupt, 3 for timing interrupt and 10 for High Speed Counter interrupt			
	Nest Pointer (N)		8 points: N0 ~ N7			
Numerical System of Constant			Decimal (K), Hexadecimal (H) or Real number (E)			
Comm. Function	Main Unit Built-in Comm. Port	Programming	12Mbps high-speed Mini USB port			
		Multi-Function	CP1 (RS-485) provides Computer Link, MODBUS, CPU Link, Non-protocol and so on			
	Expanded Multi-Func. Port		CP2, CP3 at the EC1			CP2 ~ 5 at EC1 & EC3
Multi-Function High Speed Input			External Interruption, Hardware / Software High Speed Counter, Pulse Capture, Pulse Meas., Handwheel ...			
			10 kHz × 8 points	50 kHz × 8 points	200 kHz ×4 points + 50 kHz × 4 points ☆	
4 Axes Pulse Output (NPN model only)			50 kHz × 4 points	50 kHz × 4 points	200 kHz × 4 points ☆	200 kHz × 4 points
Real Time Clock (Optional)			By VS-MCR Multi-Func. Memory Card to indicate the year, month, date, hour, min., sec. & day of week			
Expanded Memory (VS-MC / VS-MCR)			No battery required 16Mb Flash ROM for user project and data-bank (655,360 words) storage			
Type of Expansion Card (EC1 ~ EC3)			DI / DO, communication or special function card (AI, AO, temperature input, inverter speed control, etc.)			
No. of Special Module / Special Card			0 / 1	8 / 3	8 / 3	16 / 3

☆ In the VSM-28ML : 1 MHz × 4 (for HHSC1 & HHSC2) + 50 kHz × 4 Multi-Function High Speed Inputs and 1 MHz × 4 Pulse Outputs.

Product List

Item	Model Name	Main Specification	
VS1 Series Main Unit	VS1-10M / 14M★-D	6 / 8 DI (DC 24V); 4 / 6 DO; 1 EC socket	16K words project memory; 8×10 kHz high speed input; 4×50 kHz high speed output (NPN model); I/O by screw-clamp terminal
	VS1-20M / 24M★-D	12 / 14 DI (DC 24V); 8 / 10 DO; 2 EC socket	
	VS1-28M / 32M★-D	16 / 20 DI (DC 24V); 12 DO; 3 EC socket; DIO Module expandable	
	VS1-32MT-DI	16 DI (DC 24V); 16 DO (100mA NPN); I/O by IDC connector; other specifications are equal to the VS1-32M	
VS2 Series Main Unit	VS2-24M★-D	12 DI (DC 24V); 12 DO; 2 EC socket; DIO & 8 Special Module expandable	32K words project memory; 8×50 kHz high speed input; 4×50 kHz high speed output (NPN model); I/O by screw-clamp terminal
	VS2-32M★-D	16 DI (DC 24V); 16 DO; 3 EC socket; DIO & 8 Special Module expandable	
	VS2-32MT-DI	16 DI (DC 24V); 16 DO (100mA NPN); I/O by IDC connector; other specifications are equal to the VS2-32M	
VSM Series Main Unit	VSM-14MT-D	8 DI (DC 24V); 6 DO (0.5A NPN transistor);); 1 EC socket	32K words project memory; 4×200 kHz + 4×50 kHz high speed input; 4×200 kHz high speed output; I/O by screw-clamp terminal
	VSM-24MT-D	12 DI (DC 24V); 12 DO (0.5A NPN transistor); 2 EC socket; DIO & 8 Special Module expandable	
	VSM-32MT-D	16 DI (DC 24V); 16 DO (0.5A NPN transistor);3 EC socket; DIO & 8 Special Module expandable	
	VSM-28ML-D	4 Line Driver DI (for 2 HHSC up to 1 MHz) + 12 DI (DC 24V, 4×50 kHz & 8 normal); 8 Line Driver DO (4×1 MHz & 4 normal) + 4 DO (0.5A NPN); 32K words project memory; 3 EC socket; DIO & 8 Special Module expandable; I/O by screw-clamp terminal	
	VSM-32MT-DI	16 DI (DC 24V); 16 DO (100mA NPN); I/O by IDC connector; other specifications are equal to the VSM-32M	
VS3 Series Main Unit	VS3-32M★-D	16 DI (DC 24V, 4×200 kHz & 4×50 kHz); 16 DO (NPN transistor model has 4×200 kHz high speed output); 64K words project memory; 3 EC socket; DIO & 16 Special Module expandable; I/O by screw-clamp terminal	
	VS3-32MT-DI	16 DI (DC 24V); 16 DO (100mA NPN); I/O by IDC connector; other specifications are equal to the VS3-32M	
DIO Expansion Module	VS-8X / 16X	DI Expansion Module: 8 / 16 DI (DC 24V); input by screw-clamp terminal	
	VS-8Y★ / 16Y★	DO Expansion Module: 8 / 16 DO; output by screw-clamp terminal	
	VS-8XY★ / 16XY★	DIO Expansion Module: 4 / 8 DI (DC 24V); 4 / 8 DO; I/O by screw-clamp terminal	
	VS-28XYR	DIO Expansion Module: 16 DI (DC 24V); 12 DO (2A Relay); I/O by screw-clamp terminal	
	VS-32XY★	DIO Expansion Module: 16 DI (DC 24V); 16 DO; I/O by screw-clamp terminal	
	VS-16X / 16YT-I	DI / DO Expansion Module: 16 DI (DC 24V) / 16 DO (100mA NPN transistor); input / output by IDC connector	
	VS-16XYT / 32XYT-I	DIO Expansion Module: 8 / 16 DI (DC 24V); 8 / 16 DO (100mA NPN transistor); I/O by IDC connector	
	VS-PSD	Power Repeater Module: DC 24V input converts to DC 5V 500mA + DC 12V 800mA outputs for after inner use	
Special Function Module	VS-4AD	Analog Input Module: 4 Ch. inputs (16-bit, can use voltage or current); isolated; with accurate DC 10V output	
	VS-2DA	Analog Output Module: 2 Ch. outputs (16-bit, can use voltage or current); isolated	
	VS-3A / 6A	Analog I/O Module: 2 / 4 AI + 1 / 2 AO Ch. (16-bit, can use voltage or current); isolated; with accurate DC 10V	
	VS-4TC / 8TC	Thermocouple Temperature Input Module: 4 / 8 Ch. (thermocouple) inputs, 0.1 ℃ / 0.1 ℉ resolution ; isolated	
	VS-2PT / 4PT	PT-100 Temperature Input Module: 2 / 4 Ch. (3-wire PT-100) inputs, 0.1 ℃ / 0.1 ℉ resolution ; isolated	
	VS-2PG / 4PG	Pulse Generator Module: 2 / 4 sets of 200 kHz high speed pulse outputs for 2/4 axes position control.	
	VS-1LC / 2LC	Weight Measurement Input Module: 1 / 2 Ch. load cell (6-wire) signal inputs ; isolated	
DIO Expansion Card	VS-4X / 8X-EC	DI Expansion Card: 4 / 8 DI (DC 24V); input by screw-clamp terminal	
	VS-4YR / T-EC	DO Expansion Card: 4 DO (2A relay / 0.3A NPN transistor) ; output by screw-clamp terminal	
	VS-8YT-EC	DO Expansion Card: 8 DO (2A relay / 0.3A NPN transistor) ; output by screw-clamp terminal	
	VS-4XYR / T-EC	DIO Expansion Card: 2 DI (DC 24V); 2 DO (2A relay / 0.3A NPN transistor); I/O by screw-clamp terminal	
	VS-8XYR / T-EC	DIO Expansion Card: 4 DI (DC 24V); 4 DO (2A relay / 0.3A NPN transistor); I/O by screw-clamp terminal	
	VS-8XI / 8YTI-EC	DI / DO Expansion Card: 8 DI (DC 24V) / 8 DO (100mA NPN transistor); input / output by IDC connector	
	VS-E8X-EC	DI Expansion Card for VS-32XY Module only: 8 DI (DC 24V); input by screw-clamp terminal	
	VS-E8YT-EC	DO Expansion Card for VS-32XY Module only: 8 DO (0.3mA NPN transistor); output by screw-clamp terminal	
Comm. Expansion Card	VS-485 / D485-EC	Communication Expansion Card: 1 / 2 non-isolated RS-485 port with TX / RX indicators; dist. 50m Max.	
	VS-485A / D485A-EC	Communication Expansion Card: 1 / 2 isolated RS-485 port with TX / RX indicators; dist. 1000m Max.	
	VS-232 / D232-EC	Communication Expansion Card: 1 / 2 non-isolated RS-232C port with indicators; dist. 15m; wiring by terminals	
	VS-D52A-EC	Communication Expansion Card: 1 isolated RS-485 (1000m) & 1 non-iso. RS-232C (15m) ports, with indicators	
	VS-ENET2-EC	Communication Expansion Card: 2 Ethernet ports (by one RJ-45 jack) with TX / RX indicators; providing 2 non-isolated RS-485 interfaces, dist. 50m Max.	
Special Function Card	VS-3AV-EC	Brief Voltage I/O Card: 2 Ch. (0~10V, 12-bit) VI + 1 Ch. (0~10V, 10-bit) VO; with accurate 10V out; non-isolated	
	VS-4AD-EC	Analog Input Card: 4 Ch. inputs (12-bit, can use voltage or current); non-isolated	
	VS-2DA-EC	Analog Output Card: 2 Ch. outputs (12-bit, can use voltage or current); non-isolated	
	VS-4A-EC	Analog I/O Card: 2 AI + 2 AO Ch. (12-bit, can use voltage or current); non-isolated	
	VS-3ISC-EC	Inverter Speed Control Card: 3 channel (0.1% resolution) voltage outputs; totally isolated for each channel	
	VS-2TC / 4TC-EC	Thermocouple Temperature Input Card: 2 / 4 Ch. (thermocouple) inputs, 0.2 ~ 0.3 ℃ resolution; non-isolated	
	VS-1PT / 2PT-EC	PT-100 Temperature Input Card: 1 / 2 Ch. (3-wire PT-100) input, 0.1 ℃ resolution; non-isolated	
Memory Card	VS-MC / MCR	Memory Card: 16Mb Flash ROM for user's project and data-bank (655,360 words) storage; MCR with the RTC	

★ Selectable output: R= 2A Relay; T= 0.5A NPN transistor ; P= 0.5A PNP transistor.
All Main Unit, Special Function Module, VS-PSD & IDC's output are required DC 24V -15~+20% power input.