

## Forward

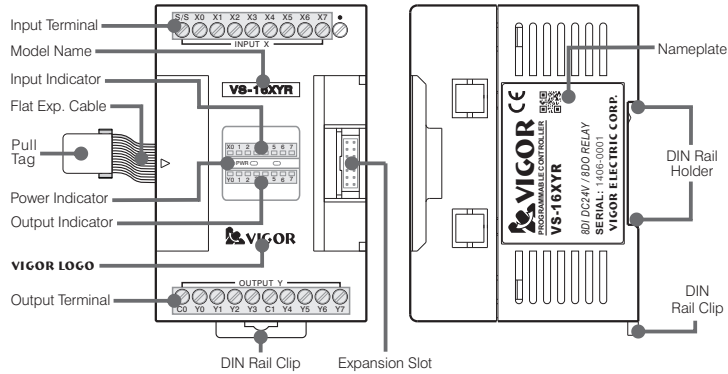
The Expansion Slot on the right side of the VS series Main Unit provides various expansion functions. The I/O Expansion Modules can use this slot to extend input and output control points thus could satisfy the requirement of more external status identification and to drive more loads. Furthermore, the varied Special Modules are available to use this slot to achieve the position inspection, speed control, temperature control, etc., for presenting a complicated and high-level control system.

This document is to describe the Expansion Module of the VS series. More description about the Special Module, please refer to the module's particular document.

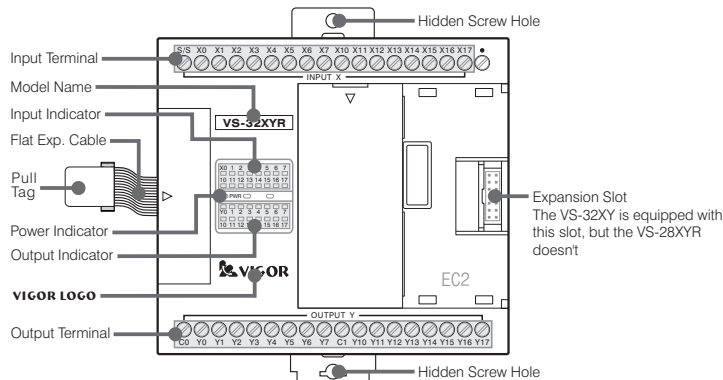
The VS Series PLC offers complete DIO Expansion Modules, ranging from 8 points to 32 points for selection. Various output types are including the relay, NPN transistor and PNP transistor, suitable for different kind of loads. Furthermore, the I/O connection additionally presents the terminal block or IDC connector, the options can make a better planning at the control panel.

## Component Designation

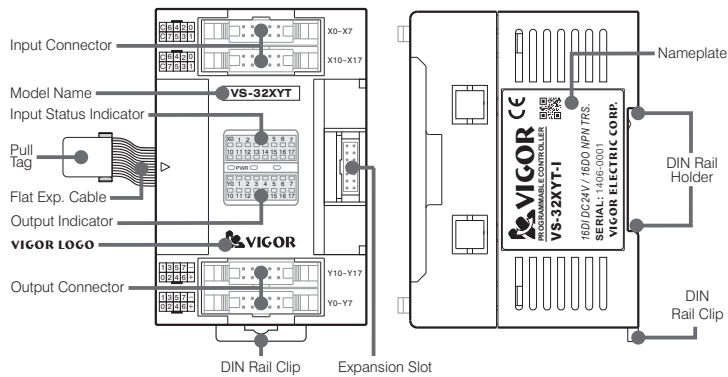
- VS-16XY Module (also apply to the VS-16X / VS-16Y / VS-8XY / VS-8X / VS-8Y Modules)



- VS-32XY Module also apply to the VS-28XY Modules

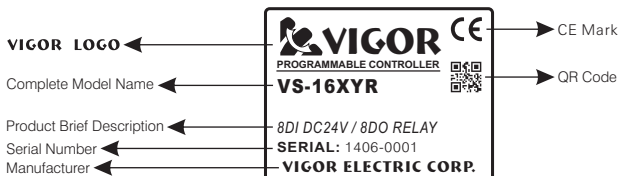


- VS-32XYT-I Module (also apply to the VS-16XYT-I / VS-16X-I / VS-16YT-I Modules)



## Nameplate Description

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



## Specification

Model Name	Main Specification
VS-8XYR	4 DI (DC 24V, Sink/Source selectable); 4 DO (2A Relay); I/O by screw-clamp terminal
VS-8XYT	4 DI (DC 24V, Sink/Source selectable); 4 DO (0.5A NPN transistor); I/O by screw-clamp terminal
VS-8XYP	4 DI (DC 24V, Sink/Source selectable); 4 DO (0.5A PNP transistor); I/O by screw-clamp terminal
VS-8X	8 DI (DC 24V, Sink/Source selectable); input by screw-clamp terminal
VS-8YR	8 DO (2A Relay); output by screw-clamp terminal
VS-8YT	8 DO (0.5A NPN transistor); output by screw-clamp terminal
VS-8YP	8 DO (0.5A PNP transistor); output by screw-clamp terminal
VS-16XYR	8 DI (DC 24V, Sink/Source selectable); 8 DO (2A Relay); I/O by screw-clamp terminal
VS-16XYT	8 DI (DC 24V, Sink/Source selectable); 8 DO (0.5A NPN transistor); I/O by screw-clamp terminal
VS-16XYP	8 DI (DC 24V, Sink/Source selectable); 8 DO (0.5A PNP transistor); I/O by screw-clamp terminal
VS-16X	16 DI (DC 24V, Sink/Source selectable); input by screw-clamp terminal
VS-16YR	16 DO (2A Relay); output by screw-clamp terminal
VS-16YT	16 DO (0.5A NPN transistor); output by screw-clamp terminal
VS-16YP	16 DO (0.5A PNP transistor); output by screw-clamp terminal
VS-28XYR	16 DI (DC 24V, Sink/Source selectable); 12 DO (2A Relay); I/O by screw-clamp terminal
VS-32XYR	16 DI (DC 24V, Sink/Source selectable); 16 DO (2A Relay); I/O by screw-clamp terminal
VS-32XYT	16 DI (DC 24V, Sink/Source selectable); 16 DO (0.5A NPN transistor); I/O by screw-clamp terminal
VS-32XYP	16 DI (DC 24V, Sink/Source selectable); 16 DO (0.5A PNP transistor); I/O by screw-clamp terminal
VS-16XYT-I	8 DI (DC 24V, Sink/Source selectable); 8 DO (100mA NPN transistor); I/O by IDC connector
VS-16X-I	16 DI (DC 24V, Sink/Source selectable); input by IDC connector
VS-16YT-I	16 DO (100mA NPN transistor); output by IDC connector
VS-32XYT-I	16 DI (DC 24V, Sink/Source selectable); 16 DO (100mA NPN transistor); I/O by IDC connector

Item	Input Specification
Input Type	Sinking or Sourcing either
Input Signal Voltage	DC24V ± 15%
Input Signal Current	5.3mA / DC24V (EN61131-2 · type3)
Input ON Definition	Above 3.5mA (EN61131-2 · type3)
Input OFF Definition	Below 1.5mA (EN61131-2 · type3)
Input Resistance	4.3 kΩ approx.
Input Response Time	10 ms approx.
Input Signal Type	Dry contact or NPN / PNP transistor
Isolation Method	Photocoupler Isolation
Input Indicator	When a photocoupler's input is activated, the related input indicator will display ON

Item	Output Specification				
	Screw-Clamp Terminal Block Type			IDC Connector Type	
Output Type	Relay output	NPN Transistor Output	PNP Transistor Output	NPN Transistor Output	
Switch Voltage	AC: < 250V; DC: < 30V	DC5V~30V		DC5V~30V	
Rated Current	Resistive Load 2A / point, 8A / 4 points / COM, 8A / 8 points / COM	0.5A / point, 0.8A / 4 points / COM, 1.6A / 8 points / COM		0.1A / point, 0.5A / 8 points / COM	
		Inductive Load	80VA / AC230V	12W / DC24V	2.4W / DC24V
		Lamp Load	100W / AC230V	1.5W / DC24V	—
		Open Circuit Leakage	—	< 0.1mA / DC30V	< 0.1mA / DC30V
Response Time	OFF → ON: < 10 ms approx. ON → OFF: < 10 ms approx.	OFF → ON: < 100 μs ON → OFF: < 100 μs		OFF → ON: < 100 μs ON → OFF: < 100 μs	
Isolation Method	Machinery Isolation (Relay)	Photocoupler Isolation		Photocoupler Isolation	
Output Indicator	When the actual output point is activated, the related output indicator will display ON				

\*The IDC output connector is required a DC 24V -15~+20% power input.

## Terminal Layout

