

# PLC-S DI/DO

## MINI-MODULAR PLC-S



### ■ Model List



CM3-SP16EOR



CM3-SP32EDO



CM3-SP32EDOP



CM3-SP32EDCP

### ■ Features

- Compatible expansion with any PLC-S CPU.
- PWM available with up to 4 kHz duty cycle guaranteed.
- Group-isolated.
- Up to 16 discrete inputs and 16 discrete outputs.
- Push-in and screw-based connectors available.
- Relay, sink, and source discrete outputs available.

### ■ Benefits

- Diagnostic LEDs.
- Automatically detects sink/source input, no programming required.

Category	CIMON Part Number	I/O Points	Detail
Discrete Input Module	CM3-SP32EDOP	32 TR Sink/Source Inputs	24 VDC Push-in Terminal Connector
	CM3-SP32EDO		24 VDC Terminal Block and Cable Required
Discrete Output Module	CM3-SP32EOTP	32 TR Sink Outputs	24 VDC Push-in Terminal Connector
	CM3-SP32EOCP	32 TR Source Outputs	
	CM3-SP32EOT	32 TR Sink Outputs	24 VDC Terminal Block and Cable Required
	CM3-SP32EOC	32 TR Source Outputs	
	CM3-SP16EOR	16 Relay Outputs	24 VDC/250 VAC Screw-based Terminals
	CM3-SP32PWM	32 TR Source Outputs (Includes 12 PWM Outputs)	24 VDC Terminal Block and Cable Required Duty Cycle Guarantee: 1–4000 Hz (pps) Duty Cycle Resolution: 1/1000
Discrete Combo Module	CM3-SP32EDTP	16 TR Sink/Source Inputs 16 TR Sink Outputs	24 VDC Push-in Terminal Connector
	CM3-SP32EDCP	16 TR Sink/Source Inputs 16 TR Source Outputs	
	CM3-SP32EDT	16 TR Sink/Source Inputs 16 TR Sink Outputs	24 VDC Terminal Block and Cable Required
	CM3-SP16EDR	8 TR Sink/Source Inputs 8 Relay Outputs	Input: 24 VDC Output: 24 VDC/250 VAC Screw-based Terminals

### ■ Functional

Category	PWM Output (CM3-SP32PWM)
Frequency Range (Guarantee Duty Cycle)	1 – 4000 Hz (pps)
Maximum Frequency	65 kHz (kpps)
Duty Cycle Resolution	0.0 – 100.0% (1/1000)
RAMP Control	Frequency RAMP, Duty Cycle RAMP Control

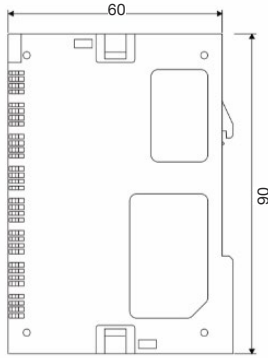


# PLC-S DI/DO

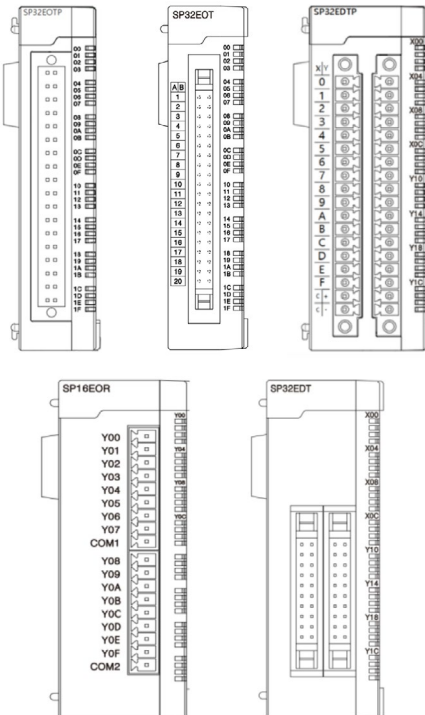
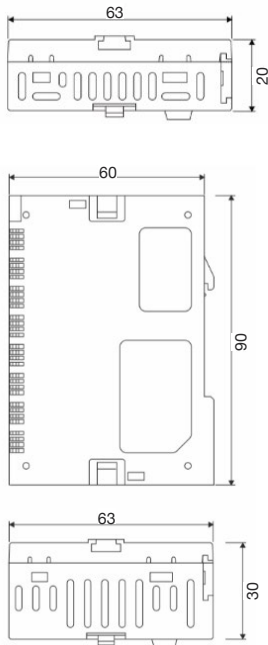
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CM3-SP32EDOP  
 CM3-SP32EDO  
 CM3-SP32EDOTP  
 CM3-SP32EDOCP  
 CM3-SP32EOT  
 CM3-SP32EOC  
 CM3-SP32PWM  
 (Unit: mm)



CM3-SP32EDTP  
 CM3-SP32EDCP  
 CM3-SP32EDT  
 CM3-SP16EOR  
 CM3-SP16EDR  
 (Unit: mm)



### Functional

Category	TR Sink/Source Input	TR Sink/Source Output	Relay Output
Rated I/O Voltage	24 VDC	12/24 VDC	24 VDC/250 VAC
Rated I/O Current	4 mA	1 point = 0.2 A 1 COM = 2 A	1 point = 2 A 1 COM = 5 A
Response Time	Off -> On	≤ 3 ms	≤ 10 ms
	On -> Off	≤ 3 ms	≤ 5 ms
Insulation Method	Photocoupler		Relay
Discrete Input Voltage/Current Thresholds	<b>ON</b> 19 VDC/3 mA <b>OFF</b> 6 VDC/1 mA	-	-
Notes	<ul style="list-style-type: none"> <li>There must be 32 or less relay outputs per PLC-S chassis.</li> <li>The maximum number of CM3-SP16EOR expansion modules is 2.</li> <li>The maximum number of CM3-SP16EDR expansion modules is 4.</li> </ul>		

### Physical

Category	Discrete Input / Output Module (CM3-SP32)	Discrete Combo Module (CM3-SP32)	CM3-SP16EOR CM3-SP16EDR
Product Dimensions (H x W x D)	90 x 20 x 60 mm (3.5 x 0.8 x 2.4 in)	90 x 30 x 60 mm (3.5 x 1.2 x 2.4 in)	
Product Weight	74 g (0.16 lb)	71 g (0.16 lb)	134 g (0.30 lb)

### Environmental

Item	Specification	Standards
Operating Temperature	-10 – +65 °C (+14 – +149 °F)	-
Storage Temperature	-25 – +80 °C (-13 – +176 °F)	-
Operating/Storage Relative Humidity	5 – 95% Non-condensing	-
Shock	15G	IEC 61131-2
Vibration	0.5G - Continuous / 1G - Discontinuous	IEC 61131-2
Square Wave Impulse Noise	±2 kV	CIMON Standard
ESD Immunity	±4 kV - Contact Discharges ±8 kV - Air Discharges	IEC 61131-2 IEC 61000-4-2
Radiated Electromagnetic Immunity	80–1000 MHz, 10 V/m	IEC 61131-2 IEC 61000-4-3
Surge Transient Immunity	2 kV - CPU, Power 2 kV - Discrete I/O (VAC) 1 kV - Discrete I/O (VDC) 1 kV - Communication	IEC 61131-2 IEC 61000-4-4