

PLC-S CPU

MINI-MODULAR PLC-S



CM3-SP16MDCF
CM3-SP16MDTF



CM3-SP32MDCF-SD
CM3-SP32MDTF-SD

■ Features

- Embedded Discrete inputs and outputs that are group-isolated.
- PID control, 32 loops with auto-tuning.
- HSC, 20 kHz (kpps), 2 channels, 2 phase, open-collector.
- High speed pulse output*, 100 kHz (kpps), 2 axes, direction-position-speed control.
- 1 Ethernet, 1 RS-232, and 1 RS-422/485 port.
- Supports Modbus TCP**/RTU master, Modbus TCP/RTU slave, and User Protocol TCP**/RTU.
- RTC with 10-year lifespan.
- Edit program while in RUN mode.
- Expand up to 11 I/O modules, with the capacity for 384 I/O.

*CM3-SP16MDR(F/V) does not support high speed pulse output due to the inherent limitation of relay contact speed.

**Requires CM3-SP01EET expansion card to utilize this feature.

■ Benefits

- All-in-one unit.
- Diagnostic LEDs.
- CPU automatically detects I/O modules within software.
- Automatically detects sink/source input, no programming required.

■ Functional

CIMON Part Number	CM3-SP16MDRV	CM3-SP16MDRF	CM3-SP16MDCF CM3-SP16MDTF	CM3-SP32MDCF-SD CM3-SP32MDTF-SD
Power Supply	12–24 VDC, 0.58 A			
Input Type	TR Sink/Source			
Output Type	R = Relay		C = TR Source T = TR Sink	
Number of Channels	(16 Total) 8 Discrete Inputs, 8 Discrete Outputs	(14 Total) 8 Discrete Inputs, 6 Discrete Outputs	(16 Total) 8 Discrete Inputs, 8 Discrete Outputs	(32 Total) 16 Discrete Inputs, 16 Discrete Outputs Note: CM0-TB32M and CM0-SCB15M Required
Rated Input Voltage	12 or 24 VDC, Note: 12 VDC is used for the HSC.			
Rated Input Current	4 mA			
Input Insulation Method	Photocoupler			
Input Voltage/Current Thresholds	ON CH1-4: 10 VDC/4 mA CH5-8: 14 VDC/4 mA OFF CH1-4: 6 VDC/1 mA CH5-8: 12 VDC/1 mA		ON CH1-4: 10 VDC/4 mA CH5-16: 14 VDC/4 mA OFF CH1-4: 6 VDC/1 mA CH5-16: 12 VDC/1 mA	
Rated Output Voltage	24 VDC, 250 VAC		12, 24 VDC	
Rated Output Current	1 point = 2 A 1 COM = 5 A		1 point = 0.2 A 1 COM = 2 A	
Output Insulation Method	Relay Contact		Photocoupler	
Comm. Ports	RS-232, 1 Channel RS-422/485, 1 Channel	RS-232, 1 Channel RS-422/485, 1 Channel Ethernet, 1 Port		
Utility/Program Port	Mini-B USB, RS-232/422/485	Mini-B USB, Ethernet, RS-232/422/485		Mini-B USB, SD card, Ethernet, RS-232/422/485

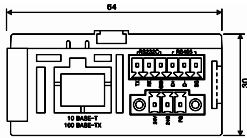
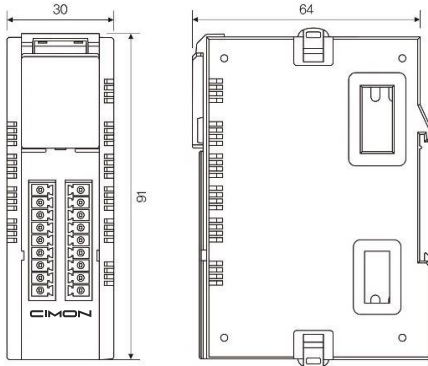


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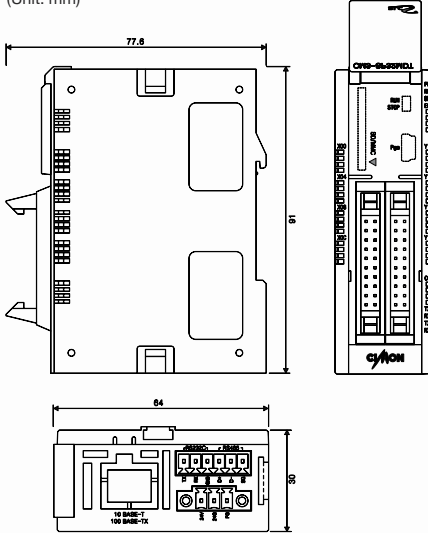
MINI-MODULAR PLC-S



CM3-SP16MDCF
CM3-SP16MDTF
(Unit: mm)



CM3-SP32MDCF-SD
CM3-SP32MDTF-SD
(Unit: mm)



Physical

CIMON Part Number	CM3-SP16MDRV	CM3-SP16MDRF	CM3-SP16MDCF CM3-SP16MDTF	CM3-SP32MDCF-SD CM3-SP32MDTF-SD
Product Dimensions (H x W x D)	91 x 30 x 64 mm (3.6 x 1.2 x 2.5 in)			91 x 30 x 77.6 mm (3.6 x 1.2 x 3.1 in)
Product Weight	165 g (0.36 lb)		155 g (0.34 lb)	120 g (0.26 lb)

Environmental

Item	Specification	Standards
Operating Temperature	-10 – +60 °C (+14 – +140 °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