



CM3-SB16MDCF / CM3-SB16MDTF



CM3-SB32MDCF / CM3-SB32MDTF /
CM3-SB32MDRF

■ 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 RTU master, Modbus TCP/RTU slave, and User Protocol RTU.
- RTC with 10-year lifespan.
- Edit program while in RUN mode.
- Up to 16 discrete inputs, 16 discrete outputs, 2 analog inputs, and 2 analog outputs.

*CM3-SB32MDRF does not support high speed pulse output due to the inherent limitation of relay contact speed.

**Micro-S PLC units do not support expansion capabilities. They are designed as standalone systems and cannot be extended with additional modules.

■ Benefits

- All-in-one unit.
- Diagnostic LEDs.
- Automatically detects sink/source input, no programming required.



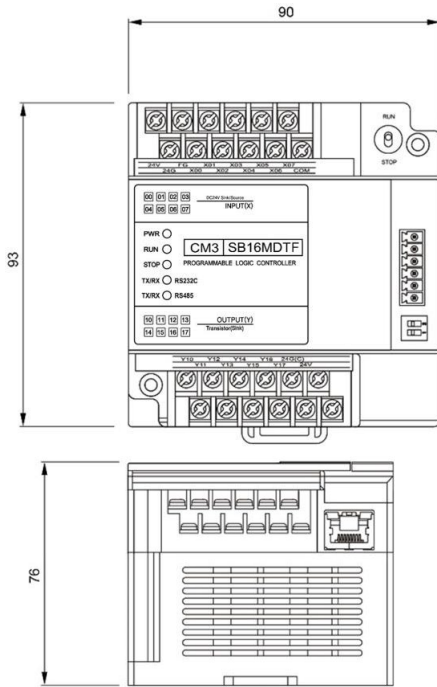
■ Functional

| CIMON Part Number | CM3-SB16MDCF CM3-SB16MDTF | CM3-SB32MDCF CM3-SB32MDTF | CM3-SB32MDRF |
|--|--|--|------------------------------|
| Power Supply | 12–24 VDC, 0.12 A | 20–24 VDC, 0.33 A | 24 VDC, 0.40 A |
| Discrete Input Type | TR Sink/Source | | |
| Discrete Output Type | C = TR Source T = TR Sink | | Relay |
| Analog Input Type | - | Voltage: 0–10 V Current: 0–20 mA | |
| Analog Output Type | - | Voltage: 0–10 V (Load resistance > 1 kΩ) Current: 4–20 mA (Load resistance < 600 Ω) | |
| Number of Channels | (16 Total) 8 Discrete Inputs, 8 Discrete Outputs | (36 Total) 16 Discrete Inputs, 16 Discrete Outputs, 2 Analog Inputs, 2 Analog Outputs | |
| Rated Discrete Input Voltage | 12 or 24 VDC, Note: 12 VDC is used for the HSC. | | |
| Rated Discrete Input Current | 4 mA | | |
| Discrete Input Insulation Method | Photocoupler | | |
| Discrete Input Voltage/Current Thresholds | ON CH1-4: 10 VDC/3 mA CH5-8: 14 VDC/3 mA OFF CH1-4: 8 VDC/1 mA CH5-8: 12 VDC/1 mA | ON CH1-4: 10 VDC/3 mA CH5-16: 14 VDC/3 mA OFF CH1-4: 8 VDC/1 mA CH5-16: 12 VDC/1 mA | |
| Rated Discrete Output Voltage | 12, 24 VDC | | 24 VDC, 250 VAC |
| Rated Discrete Output Current | 1 point = 0.2 A 1 COM = 1 A | | 1 point = 2 A 1 COM = 5 A |
| Discrete Output Insulation Method | Photocoupler | | Relay |
| Communication Ports | RS-232, 1 Channel RS-422/485, 1 Channel Ethernet, 1 Port | | |
| Utility/Program Port | Mini-B USB, Ethernet, RS-232/422/485 | | |



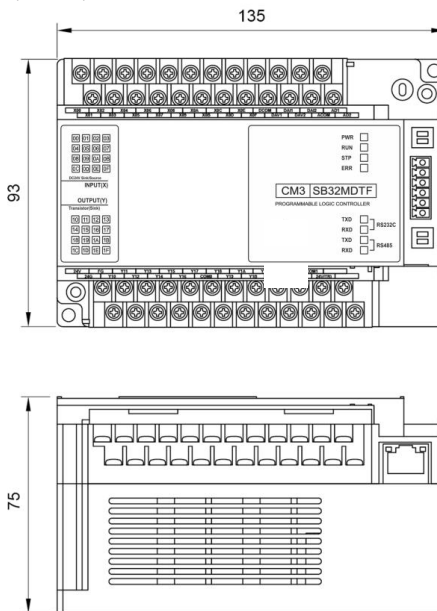
CM3-SB16MDCF / CM3-SB16MDTF

(Unit: mm)



CM3-SB32MDCF / CM3-SB32MDTF / CM3-SB32MDRF

(Unit: mm)



Physical

| CIMON Part Number | CM3-SB16MDCF CM3-SB16MDTF | CM3-SB32MDCF CM3-SB32MDTF | CM3-SB32MDRF |
|---------------------------------------|---|--|--------------|
| Product Dimensions (H x W x D) | 93 x 90 x 76 mm (3.7 x 3.5 x 3.0 in) | 93 x 135 x 75 mm (3.7 x 5.3 x 3.0 in) | |
| Product Weight | 240 g (0.53 lb) | 415 g (0.91 lb) | |

Environmental

| Item | Specification | Standards |
|--|---|------------------------------|
| Operating Temperature | -10 – +55 °C (+14 – +131 °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 |