



Main

Range of product	Modicon MC80
Product or component type	Processor module
Product specific application	Thermo solar - tower power

Complementary

Product compatibility	BMXFTB28... terminal block high-speed counter module BMXFTB20... terminal block analog input module BMXFTB28... terminal block discrete I/O module
[Us] rated supply voltage	24 V - 15...20 % DC
Current consumption	<= 700 mA
Isolation voltage	1500 V DC
Memory description	Internal RAM 3840 kB Internal RAM 128 kB data Internal RAM 3590 kB program constants and symbols
Execution time per instruction	0.06 µs Boolean 0.08 µs mixed
Realtime clock	With
Function available	Memory retention without battery
Communication port protocol	1 non isolated serial link RJ45 RS485/RS232 0.3...19.2 kbit/s 247 1 CANopen SUB-D 9 20 kbit/s...1 Mbit/s 16 2 Ethernet RJ45 10/100 Mbit/s
Integrated connection type	USB port mini B USB
Port Ethernet	10BASE-T/100BASE-TX
Bus length	0.00...32.81 Ft (0...10 m) serial link non isolated 0.00...49.21 Ft (0...15 m) serial link non isolated 0.00...3280.84 Ft (0...1000 m) serial link isolated with external isolation tap 0.00...65.62 Ft (0...20 m) 1 Mbit/s CANopen 0.00...8202.10 Ft (0...2500 m) 20 kbit/s CANopen 0.00...328.08 ft (0...100 m) Ethernet
Communication service	Read/Write variables Modbus Diagnostics Modbus Send/Receive character string character mode Process Data Object (PDO) CANopen Service Data Object (SDO) CANopen FDR client Ethernet SNMP Ethernet RSTP support Ethernet
Number of counter	2
Maximum counting frequency	60000 Hz
Counter functions	Count events Frequency meter Ratio count One shot counting Measure time periods Freelarge counting Loop (modulo) counting

Number of inputs for counter	3 auxiliary 3 high speed
Logic input for counter	Positive (sink)
Sensor power supply for counter	19...30 V DC
Input compatibility for counter	24 V 2-wire/3-wire proximity sensor Incremental encoder with push-pull outputs, 10...30 V totem pole 24 V 2/3-wire sensor PNP
Number of outputs for counter	2 positive
Nominal output current for counter	0.5 A per output
Discrete input number	8 positive logic (sink)
Discrete input type	Type 3
Discrete input current	2.4 mA
Discrete input voltage	19...30 V DC
Discrete output number	12 positive
Discrete output current	2 A per output 10 A per module
Discrete output voltage	19...30 V DC
Protection type	Overload protection output Short-circuit protection output
Analogue input number	4
Analogue input type	Current - 20...20 mA Voltage - 10...10 V
Fast read cycle time for analogue input	1.3 ms + 1.3 ms x number of channels used
Nominal read cycle time for analogue input	6.5 ms for 4 channels
Analogue input resolution	16 bits

Environment

Ambient air temperature for operation	-13...158 °F (-25...70 °C)
Ambient air temperature for storage	-40...185 °F (-40...85 °C)
Relative humidity	0...95 %
Vibration resistance	3 gn
Marking	CE
Standards	UL 508 CSA C22.2 No 213 Class I Division 2 Group C CSA C22.2 No 142 IEC 61131-2 CSA C22.2 No 213 Class I Division 2 Group A CSA C22.2 No 213 Class I Division 2 Group D CSA C22.2 No 213 Class I Division 2 Group B
Product certifications	RCM

Ordering and shipping details

GTIN	03606485445168
Package weight(Lbs)	2.54 lb(US) (1.150 kg)

Packing Units

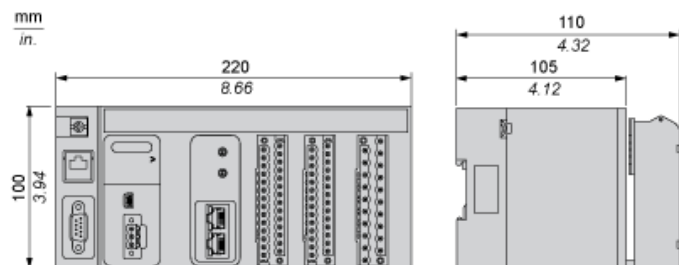
Package 1 Height	5.67 in (14.400 cm)
Package 1 width	4.65 in (11.800 cm)
Package 1 Length	10.71 in (27.200 cm)

Offer Sustainability

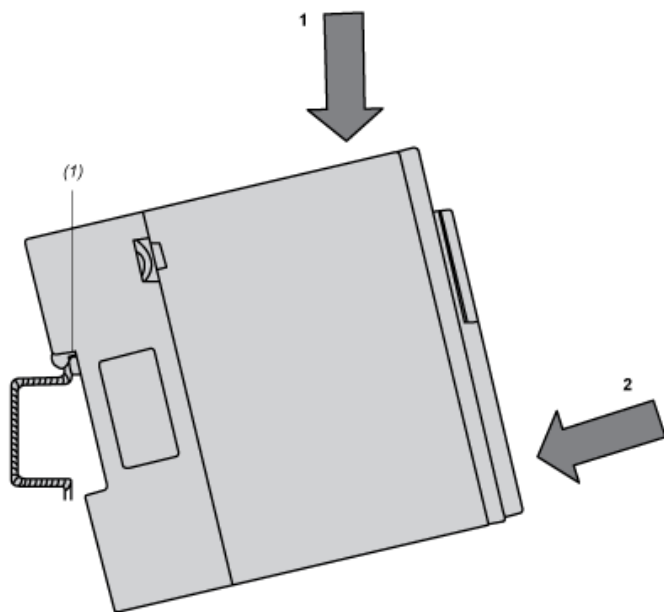
Sustainable offer status	Green Premium product
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	 China RoHS Declaration

Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

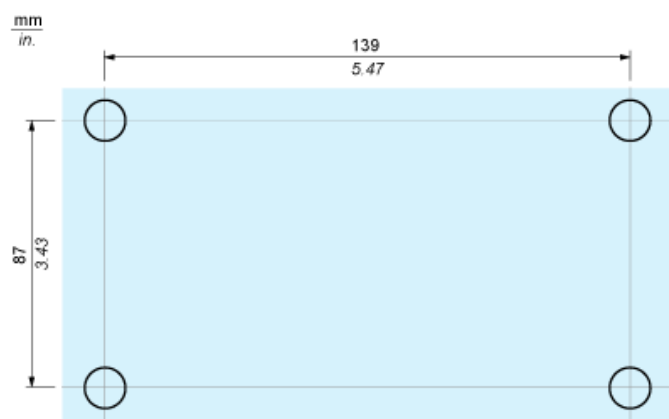
Dimensions



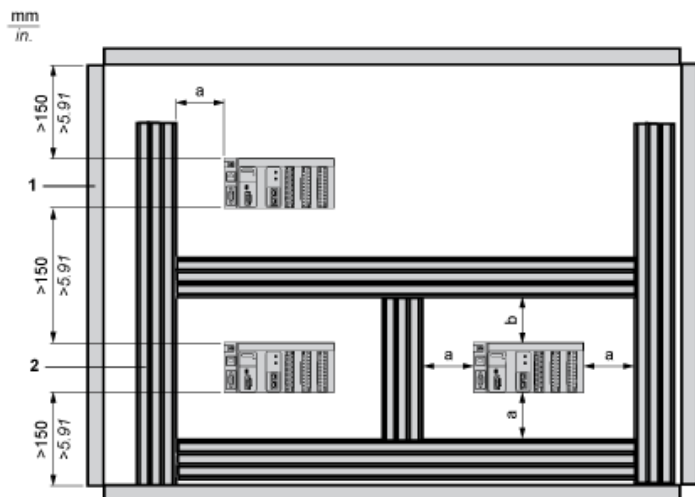
Mounting on DIN Rails



Mounting on Panels

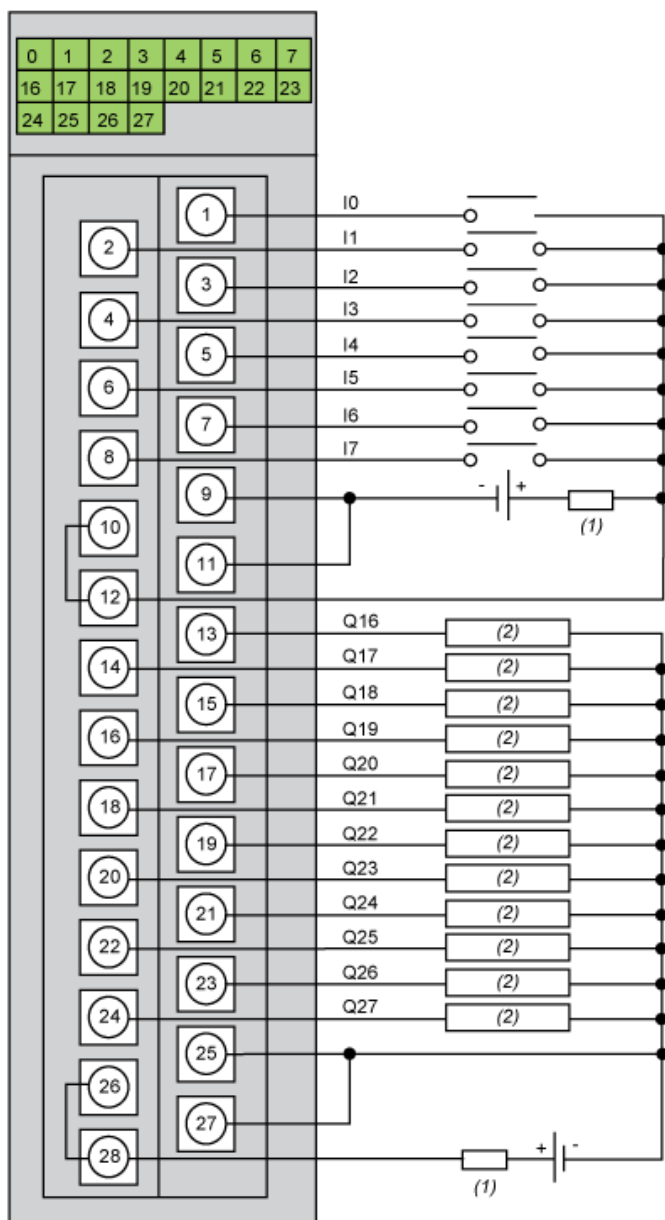


Clearance



- a : Greater than or equal to 60 mm (2.36 inch)
- b : Greater than or equal to 80 mm (3.15 inch)
- 1 : Installation or casing
- 2 : Wiring duct or tray

Discrete I/O Connection



(1) : Fuse

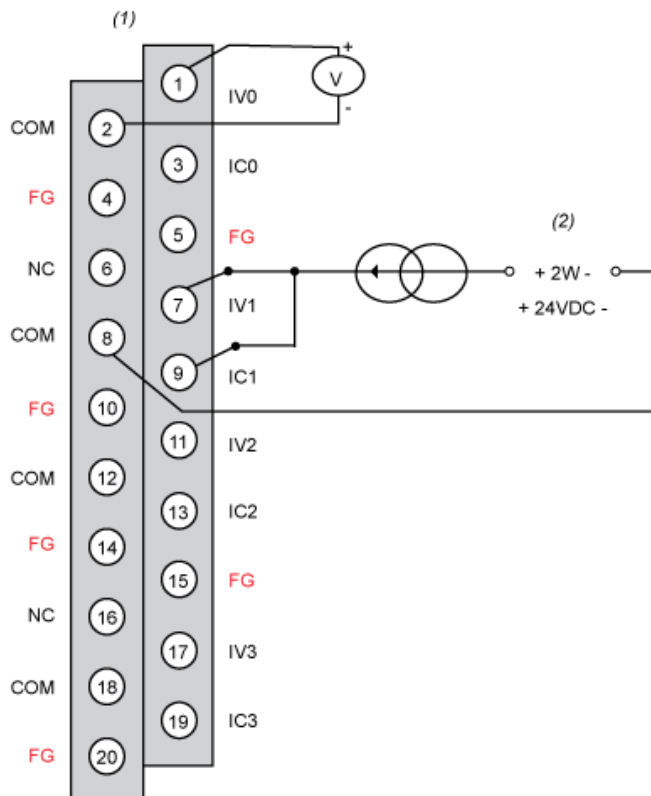
(2) : Pre-actuator

Power supply: 24 Vdc

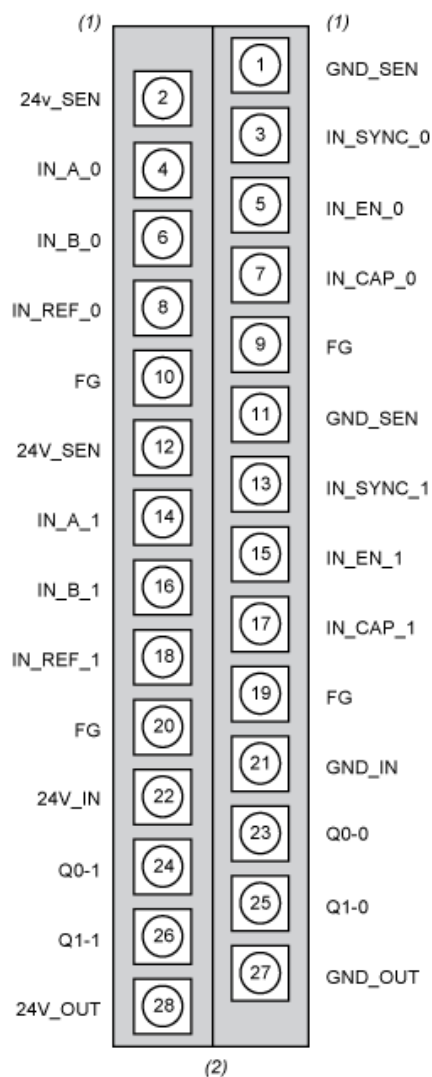
Input fuse: fast blow fuse of 0.5 A

Output fuse: fast blow fuse of 12 A

Analog Input Connection



High Speed Counter Connection



(1) : Symbol

(2) : 28-pin Connector

Pin Number	Symbol	Description
2,12	24V_SEN	24 Vdc output for sensors supply
1,11	GND_SEN	24 Vdc output for sensors supply
9,10,19,20	FG	Functional ground
4,14	IN_A_0 IN_A_1	Input A
6,16	IN_B_0 IN_B_1	Input B
3,13	IN_SYNC_0 IN_SYNC_1	Synchronization input
5,15	IN_EN_0 IN_EN_1	Enable input
8,18	IN_REF_0 IN_REF_1	Homing input
7,17	IN_CAP_0 IN_CAP_1	Capture input
22	24V_IN	24 Vdc input for sensors supply
21	GND_IN	24 Vdc input for sensors supply
23	Q0-0	Q0 output for counting channel 0
24	Q0-1	Q1 output for counting channel 0
25	Q1-0	Q0 output for counting channel 1
26	Q1-1	Q1 output for counting channel 1
28	24V_OUT	24 Vdc input for actuators supply
27	GND_OUT	24 Vdc input for actuators supply