

Product data sheet

Specifications



Modicon MC80, Controller, 8 DI, 8 DO, 2 HSC

BMKC8020310

⚠ Discontinued on: Sep 15, 2023

⚠ End-of-service on: Dec 31, 2024

⚠ Discontinued

Product availability: Non-Stock - Not normally stocked in distribution facility

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 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...32.8 ft (0...10 m) serial link non isolated 0...49.2 ft (0...15 m) serial link non isolated 0...3280.8 ft (0...1000 m) serial link isolated with external isolation tap 0...65.6 ft (0...20 m) 1 Mbit/s CANopen 0...8202.10 ft (0...2500 m) 20 kbit/s CANopen 0...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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Counter functions	Count events Ratio count Frequency meter One shot counting Measure time periods Loop (modulo) counting Freelarge 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	5 mA
Discrete input voltage	19...30 V DC
Discrete output number	8 positive
Discrete output current	500 mA per output
Discrete output voltage	19...30 V DC
Protection type	Overload protection output Short-circuit protection output

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	CSA C22.2 No 213 Class I Division 2 Group C CSA C22.2 No 142 CSA C22.2 No 213 Class I Division 2 Group D UL 508 CSA C22.2 No 213 Class I Division 2 Group A CSA C22.2 No 213 Class I Division 2 Group B IEC 61131-2
Product Certifications	RCM

Ordering and shipping details

Category	US1PC3418160
Discount Schedule	PC34
GTIN	3606480711404
Returnability	No
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	5.59 in (14.200 cm)
Package 1 Width	4.72 in (12.000 cm)
Package 1 Length	10.83 in (27.500 cm)
Package weight(Lbs)	2.635 lb(US) (1.195 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	6
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	17.253 lb(US) (7.826 kg)

Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Better

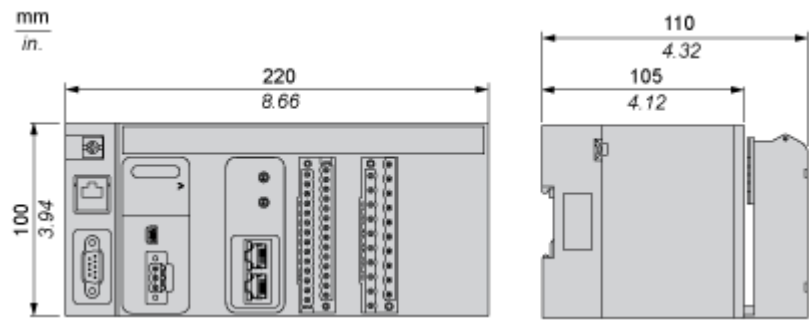
 Materials and Substances	
Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	REACH Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Use Again

 Repack and remanufacture	
Take-back	No

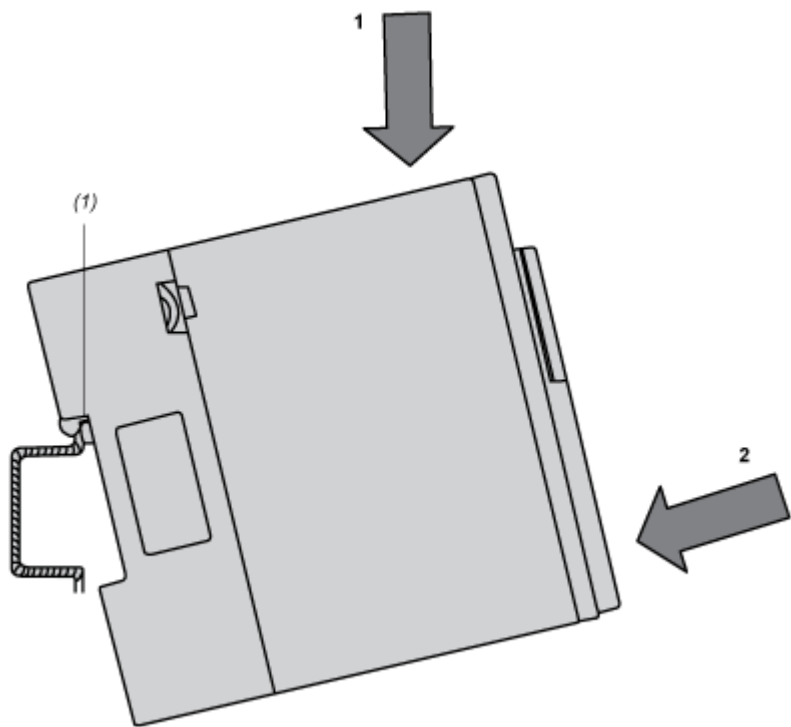
Dimensions Drawings

Dimensions

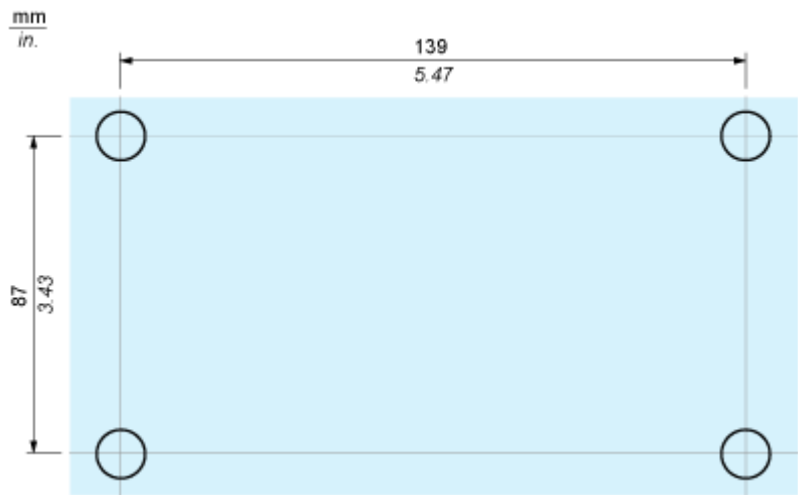


Mounting and Clearance

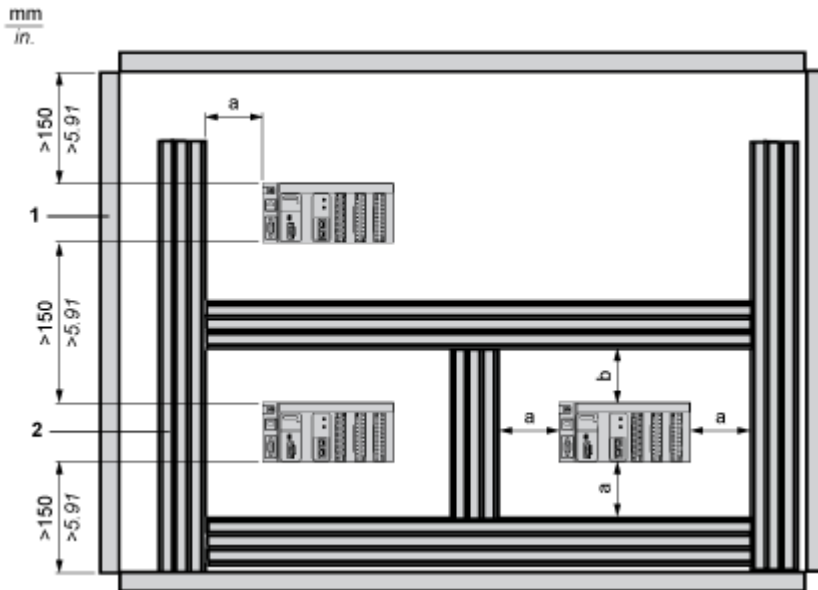
Mounting on DIN Rails



Mounting on Panels



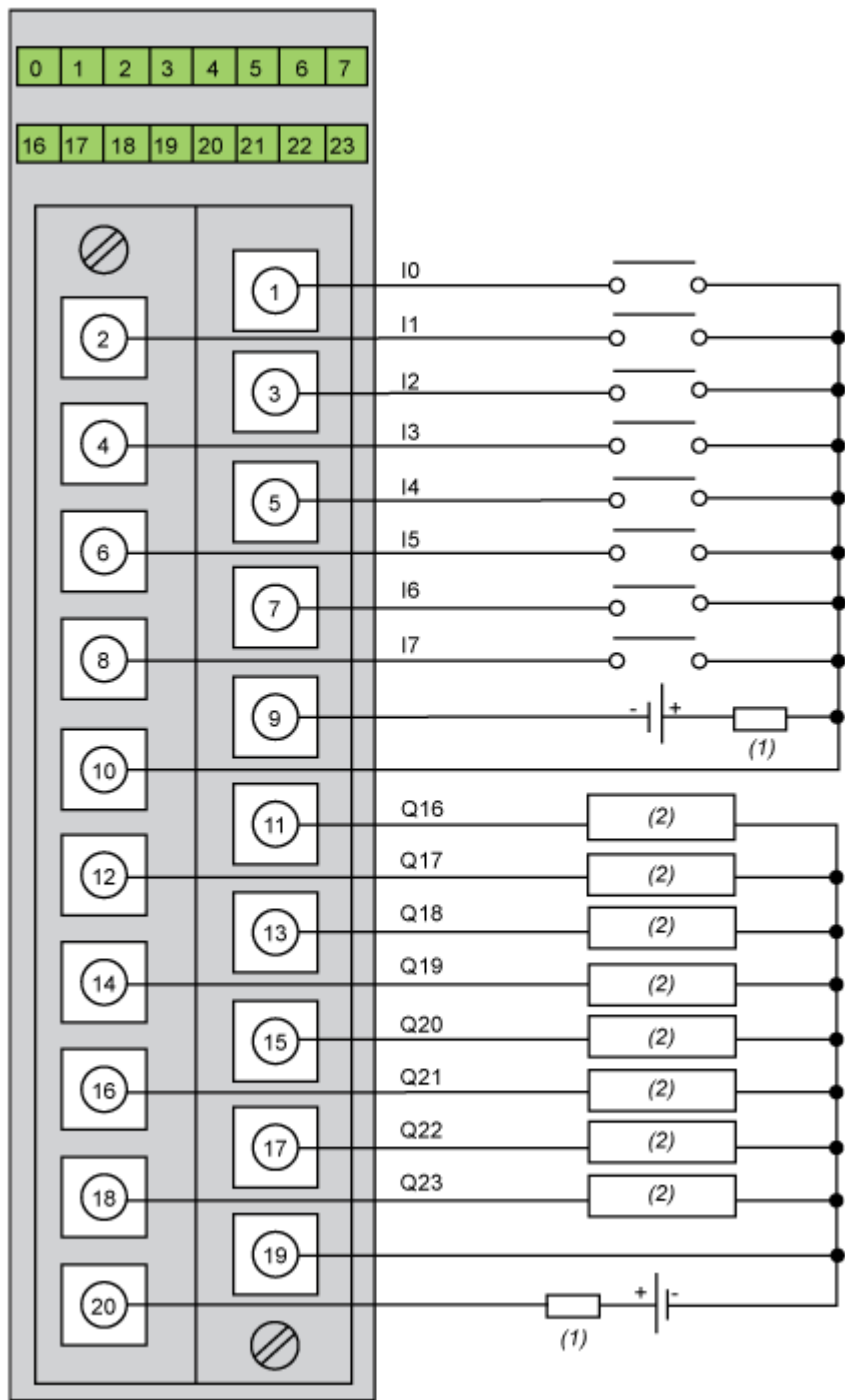
Clearance



- 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

Connections and Schema

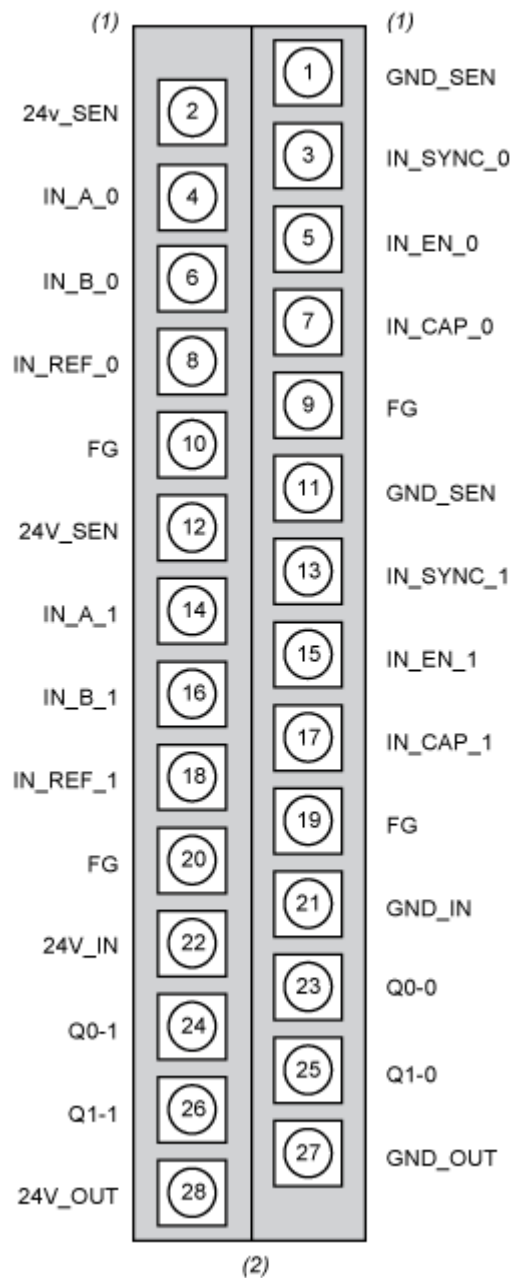
Discrete I/O Connection



- (1) : Fuse
- (2) : Pre-actuator

Power supply: 24 Vdc
Input fuse: fast blow fuse of 0.5 A
Output fuse: fast blow fuse of 6.3 A

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

Pin Number	Symbol	Description
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