Product data sheet

Specifications

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

BMKC8020310

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, connector type: RJ45, communication port: RS485/RS232, transmission rate: 0.3...19.2 kbit/s for connecting 247 devices 1 CANopen, connector type: SUB-D 9, transmission rate: 20 kbit/s...1 Mbit/s for connecting 16 devices 2 Ethernet, connector type: RJ45, transmission rate: 10/100 Mbit/s
Integrated Connection Type	USB port: mini B USB connector
Port Ethernet	10BASE-T/100BASE-TX
Bus Length	0…10 m serial link non isolated 0…15 m serial link non isolated 0…1000 m serial link isolated with external isolation tap 0…20 m, transmission rate: 1 Mbit/s, communication port: CANopen 0…2500 m, transmission rate: 20 kbit/s, communication port: CANopen 0…100 m, communication port: Ethernet
Communication Service	Read/write variables for Modbus Diagnostics for Modbus Send/receive character string for character mode Process Data Object (PDO) for CANopen Service Data Object (SDO) for CANopen FDR client for Ethernet SNMP for Ethernet RSTP support for Ethernet
Number Of Counter	2
Maximum Counting Frequency	60000 Hz

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 for output Short-circuit protection for output

Environment

Ambient Air Temperature For Operation	-25…70 °C
Ambient Air Temperature For Storage	-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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	14.48 cm
Package 1 Width	12.45 cm
Package 1 Length	27.18 cm
Package 1 Weight	1.2 kg
Unit Type Of Package 2	S03

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Number Of Units In Package 2	6
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	6.77 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	48
Package 3 Height	80 cm
Package 3 Width	80 cm
Package 3 Length	60 cm
Package 3 Weight	61.16 kg

Contractual warranty

Warranty	18 months

Sustainability

Green Premium^{TM} label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.
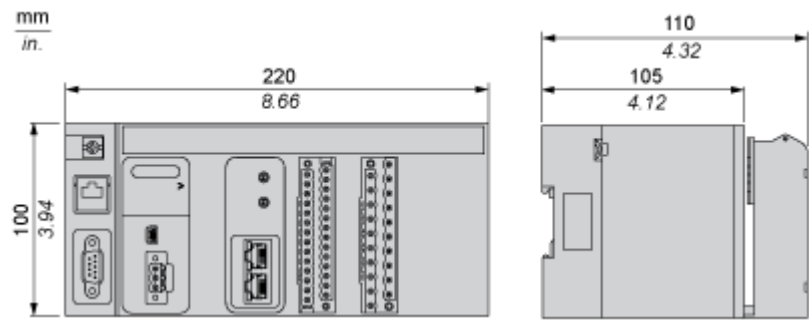
Learn more about Green Premium ›

Guide to assess a product's sustainability ›

Well-being performance

✓ Mercury Free

✓ Rohs Exemption Information   Yes

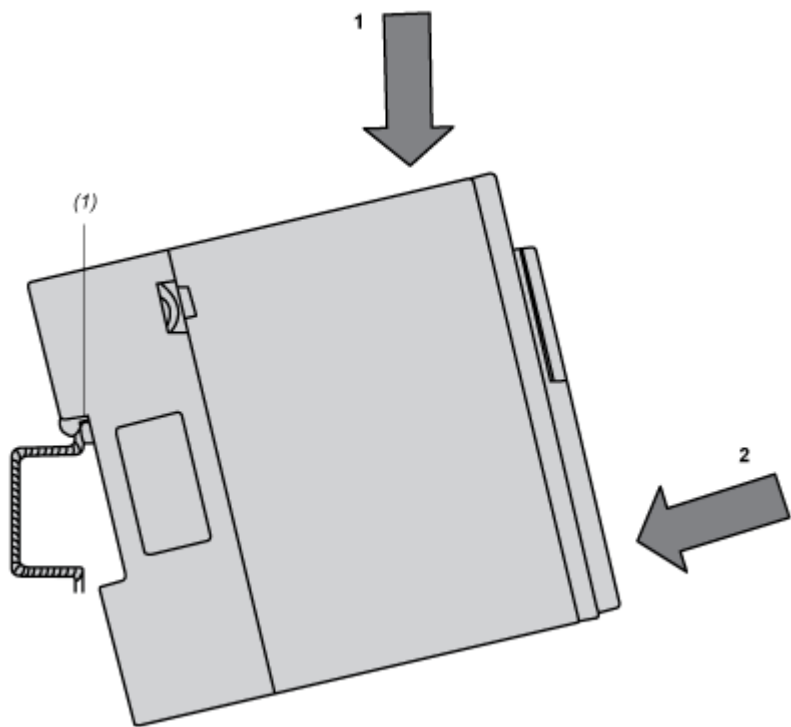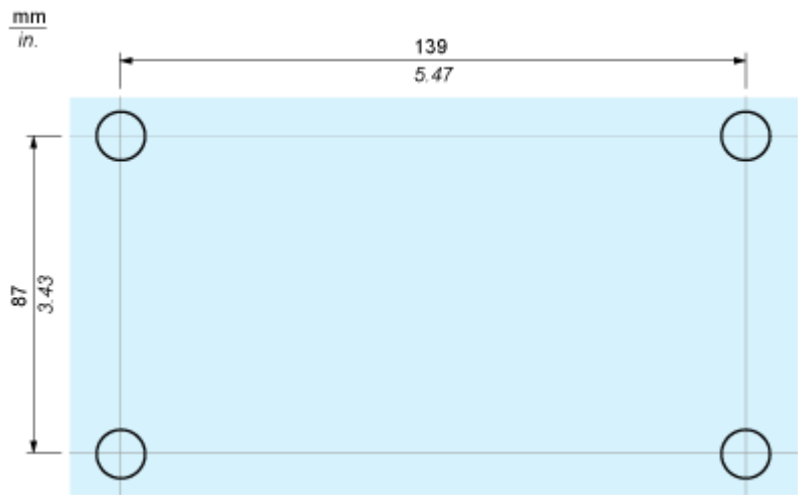|	
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California Proposition 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

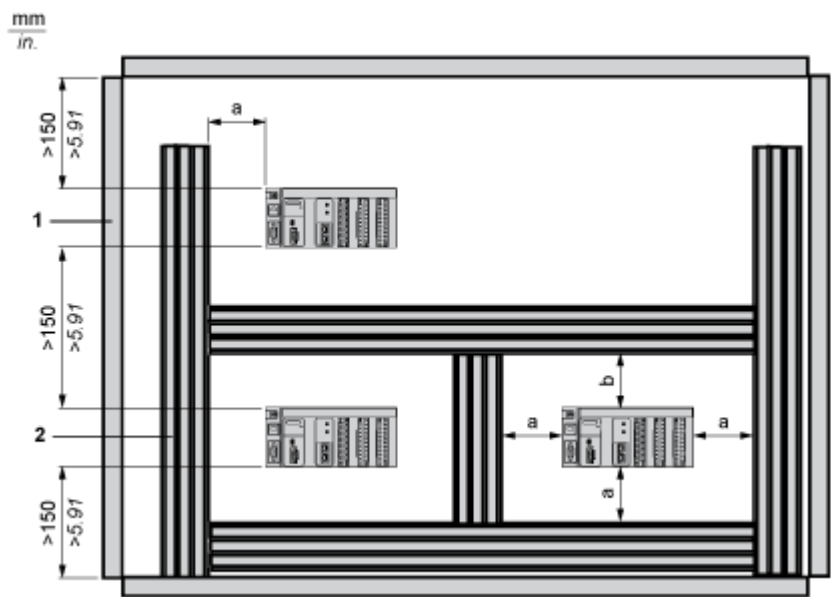Dimensions Drawings

Dimensions

Mounting and Clearance

Mounting on DIN Rails

Mounting on Panels

mm
in.

139
5.47

87
3.43

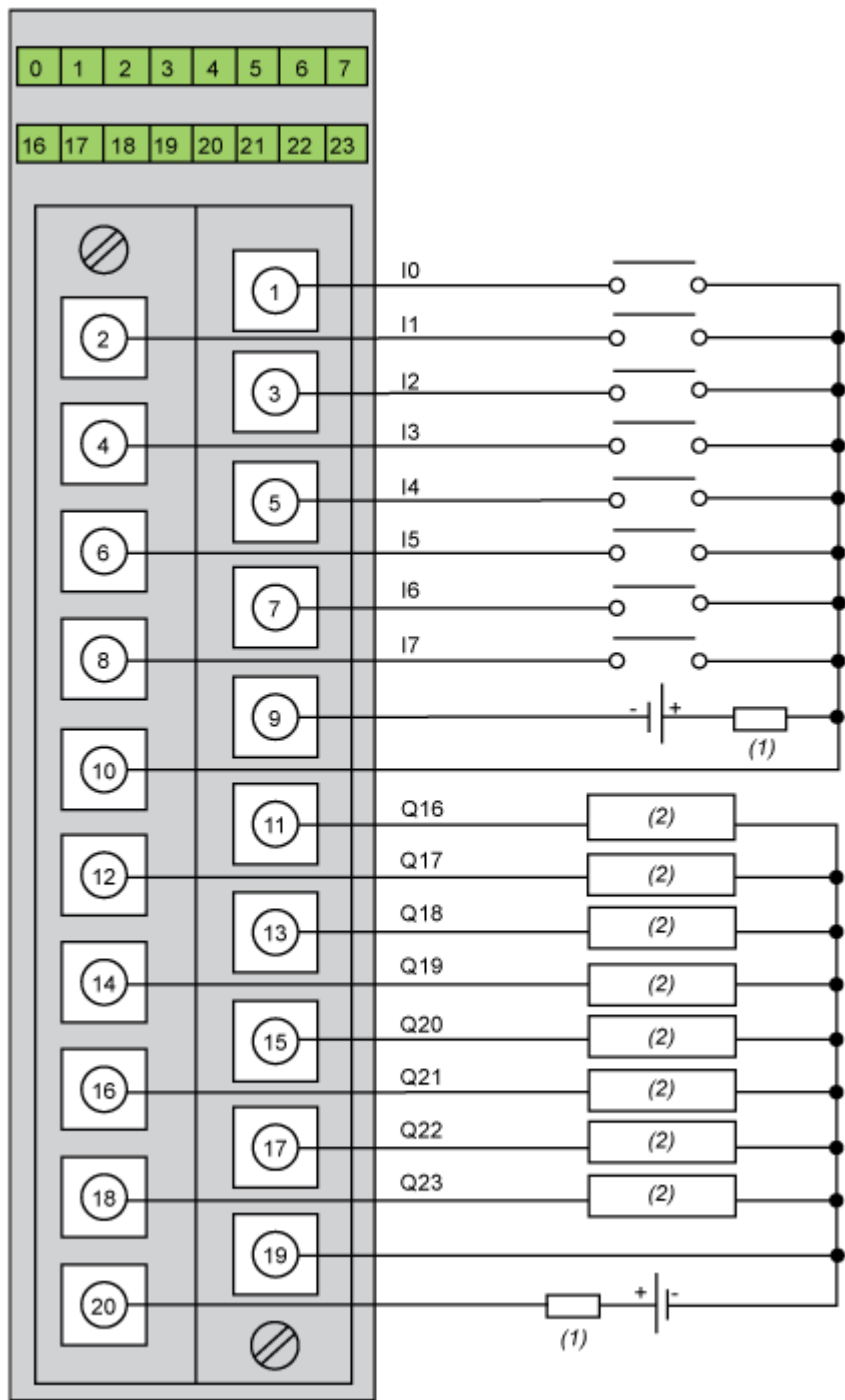**Clearance**

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
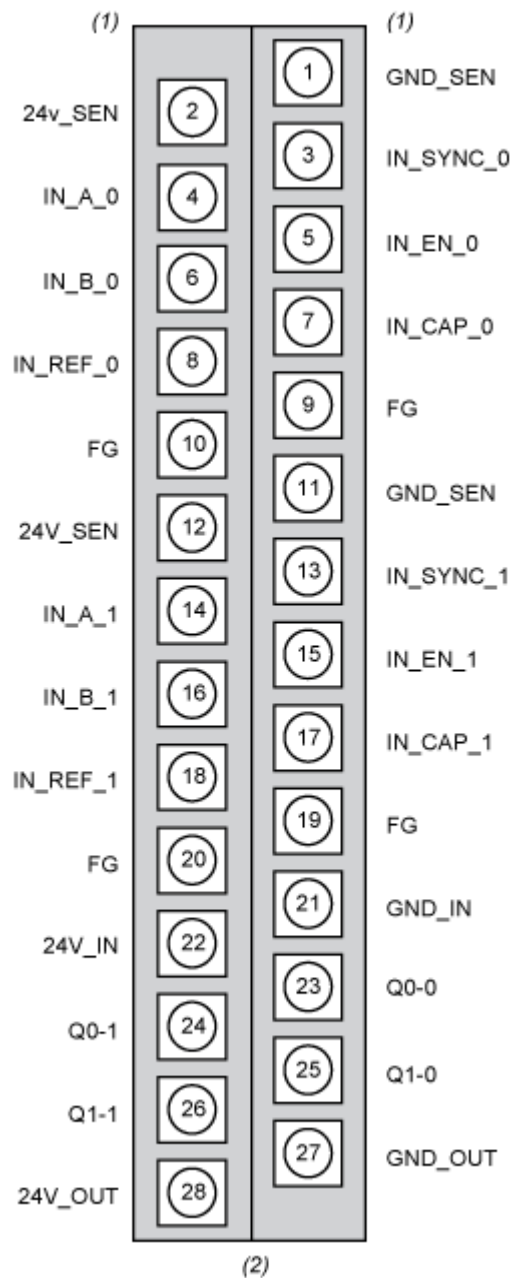
2 :   Wiring duct or tray

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