Product data sheet

Specifications

counter module, Modicon M340, high speed, 2 channels

BMXEHC0200

Main

Range of product	Modicon M340 automation platform
Product or component type	Counter module
Number of channels	2
Maximum counting frequency	60000 Hz
Number of inputs	6
Input compatibility	19.2…30 V 2-wire/3-wire proximity sensor incremental encoder with push-pull outputs, 10...30 V totem pole
Input voltage	24 V DC type 3
Number of outputs	2
Output voltage	24 V DC

Complementary

Counter functions	Loop (modulo) counting Width modulation Down counting Measure time periods Ratio count Count events 32-bit counter counting Frequency meter
Cycle time	1 ms
Isolation voltage	1500 V for 60 s
Input type	3 auxiliary input 3 high speed
Input voltage limits	24 V DC
Input current	2 mA at 11 V
Voltage state 1 guaranteed	10...30 V DC
Current state 1 guaranteed	> 2 mA (for U >= 11V)
Voltage state 0 guaranteed	< 5 V DC
Current state 0 guaranteed	< 1.5 mA
Discrete output logic	Positive or negative configurable
Maximum output current	2 A per module 0.5 A per output
Output voltage limits	19.2...30 V
Maximum load current	1 A per module 0.5 A per output
Maximum leakage current	0.1 mA at state 0

Maximum voltage drop	<3 V at state 1
Output overload protection	Integrated
Output short-circuit protection	1.5 A integrated
Overlap time	0.2 ms
Electrical connection	1 connector with 10 pins for wiring auxiliary input and sensor power supply 1 connector with 16 pins for wiring the sensors of counter 0 1 connector with 16 pins for wiring the sensors of counter 1
Current consumption	200 mA at 3.3 V DC bus 40 mA at 24 V DC rack 80 mA at 24 V DC sensor
Module format	Standard
Product weight	0.112 kg

Environment

Ambient air temperature for operation	0…60 °C
Relative humidity	10…95 % without condensation
IP degree of protection	IP20
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Protective treatment	Standard version

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.500 cm
Package 1 Width	11.500 cm
Package 1 Length	11.800 cm
Package 1 Weight	140.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	2.421 kg

Contractual warranty

Warranty (in months)	18

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 >

Environmental footprint

Total lifecycle Carbon footprint	**101 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**18 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**83 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.2 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
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 Longer

Lifetime extension

Repair	**No**

Use Again

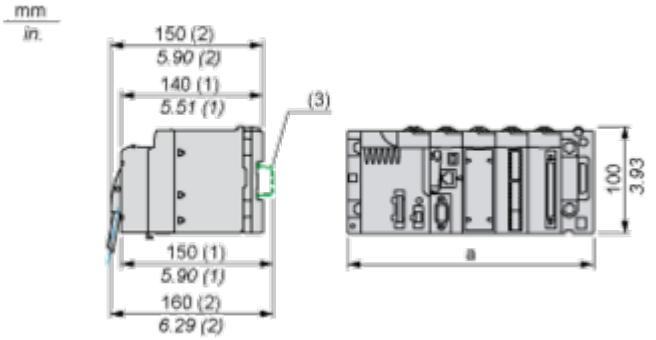
Repack and remanufacture

Recyclability potential, in %	**3**
End of life manual availability	End of Life Information
Take-back	**No**

Dimensions Drawings

Modules Mounted on Racks

Dimensions



(1) With removable terminal block (cage, screw or spring).
(2) With FCN connector.
(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

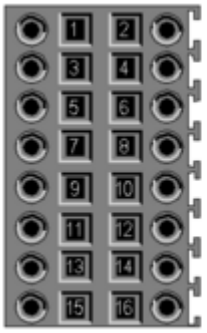
Connections and Schema

Counting Module Wiring

Note

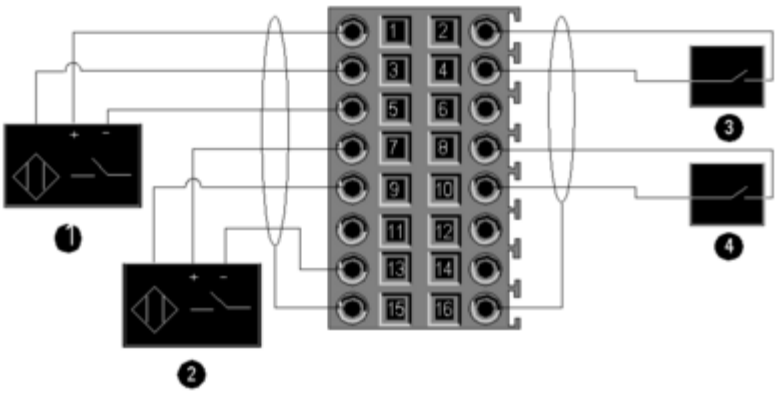
The two 16-pin connectors and the 10-pin connector are sold separately and are available in the BMXXTSHSC20 connection kit.

Assignment of the 16-Pin Connector



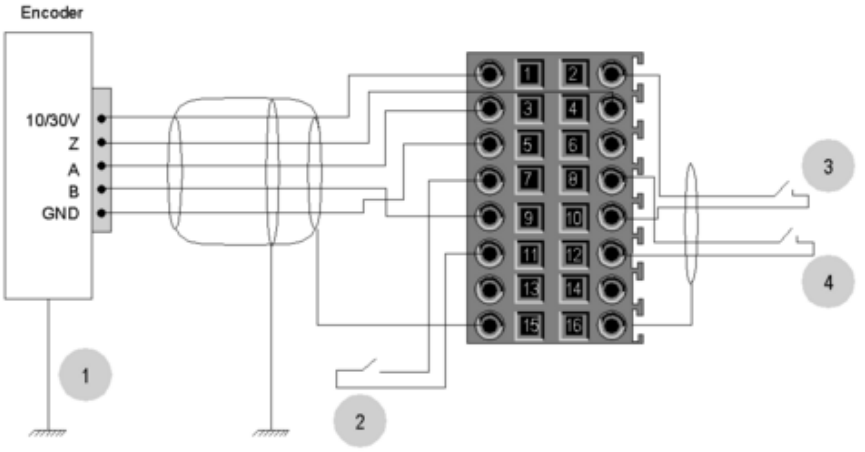
Pin number	Symbol	Description
1, 2, 7, 8	24V_SEN	24 VDC output for sensors supply
5, 6, 13, 14	GND_SEN	24 VDC output for sensors supply
15, 16	FE	Functional earth
3	IN_A	Input A
4	IN_SYNC	Synchronization input
9	IN_B	Input B
10	IN_EN	Enable input selected
11	IN_REF	Homing input
12	IN_CAP	Capture input

Sensors Connection Example



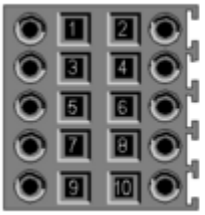
1 IN_A input
2 IN_B input
3 IN_SYNC input (synchronization input)
4 IN_EN input (enable input)

Encoder Connection Example for Axis Control



1 Encoder (inputs A, B and Z)
2 IN_REF input (homing input)
3 IN_EN input (enable input)
4 IN_CAP input (capture input)

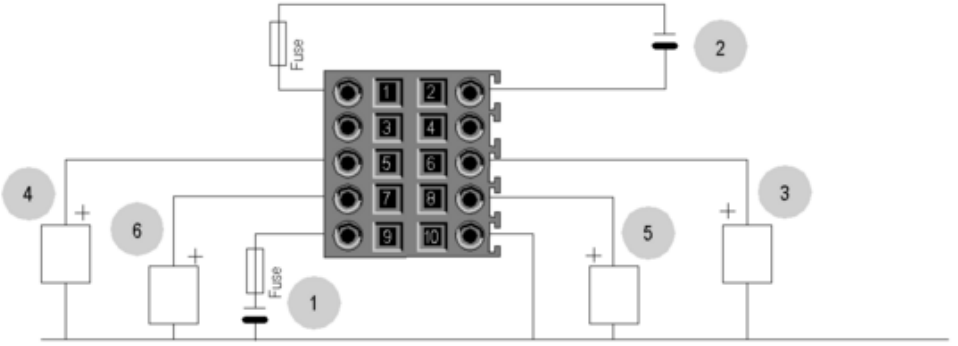
Assignment of the 10-Pin Connector



Pin number	Symbol	Description
1	24V_IN	24 VDC input for sensors supply
2	GND_IN	Return 24 VDC input for sensors supply

Pin number	Symbol	Description
5	Q0-1	Q1 output for counting channel 0
6	Q0-0	Q0 output for counting channel 0
7	Q1-1	Q1 output for counting channel 1
8	Q1-0	Q0 output for counting channel 1
9	24V_OUT	24 VDC input for actuators supply
10	GND_OUT	Return 24 VDC input for actuators supply

Connecting Outputs and Supplies



1 24 VDC supply for sensors
2 Return 24 VDC supply for sensors
3 Actuator for the Q0 output of counting channel 0
4 Actuator for the Q1 output of counting channel 0
5 Actuator for the Q0 output of counting channel 1
6 Actuator for the Q1 output of counting channel 1
The Q0 and Q1 outputs are limited by a maximum current of 0.5 A.

Recommended Circuit for high-Noise Environment Using BMXXSP•••• Electromagnetic Protection Kit

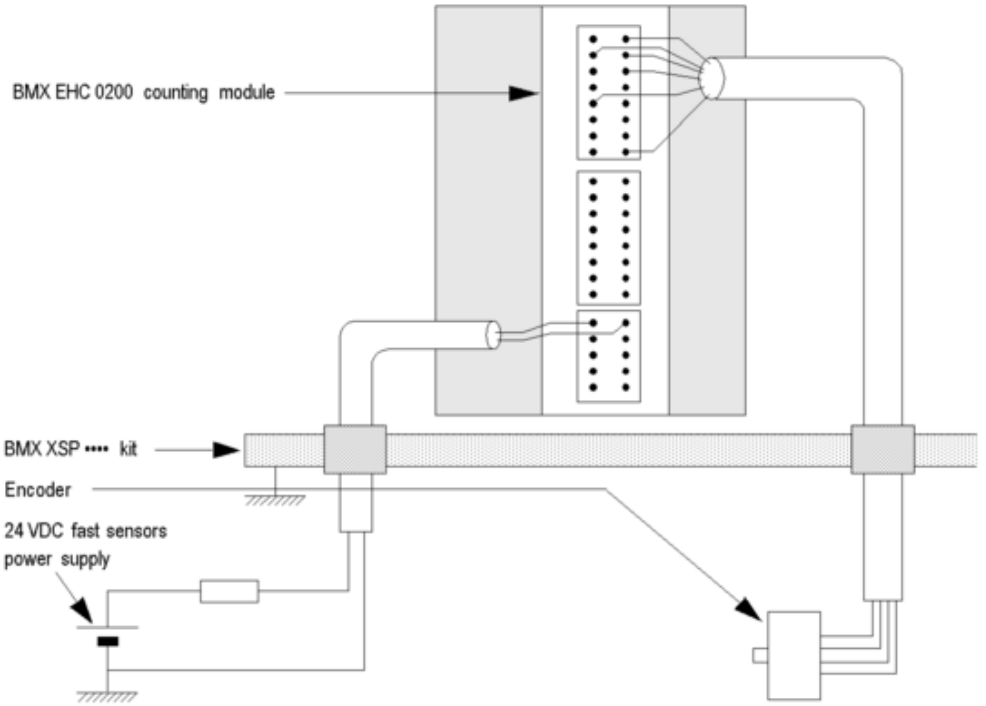
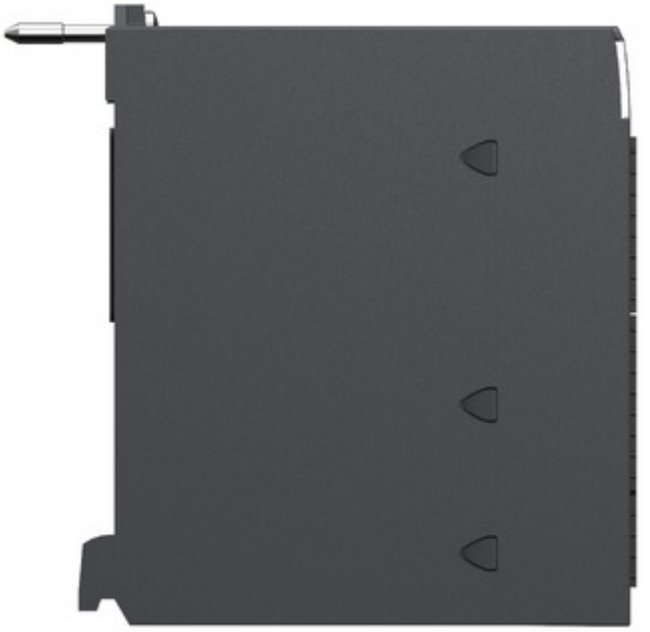

BMX EHC 0200 counting module
BMX XSP •••• kit
Encoder
24 VDC fast sensors
power supply

Image of product / Alternate images

Alternative




Schneider
Electric
Modicon
BMXEHC0200
HIGH SPEED COUNTER 2 CH
DOM : XXXX


CH0
CH1
AUX