



Main

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

Complementary

Counter functions	32-bit counter counting Count events Down counting Frequency meter Loop (modulo) counting Measure time periods Ratio count Width modulation
Cycle time	1 ms
Isolation voltage	1500 V for 60 s
Input type	3 auxiliary input 3 high speed
Input voltage limits	30 V
Input current	> 2 mA at 11 V
Voltage state 1 guaranteed	11...30 V
Current state 1 guaranteed	6 mA
Voltage state 0 guaranteed	< 5 V
Current state 0 guaranteed	< 1.5 mA
Discrete output logic	Positive or negative configurable
Output current limits	≤ 0.5 A per output ≤ 2 A per module
Output voltage limits	19.2...30 V
Maximum load current	0.5 A per output 1 A per module
Leakage current	≤ 0.1 mA at state 0
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 16 pins for wiring the sensors of counter 1 1 connector 16 pins for wiring the sensors of counter 0 1 connector 10 pins for wiring auxiliary input and sensor power supply
Current consumption	80 mA 24 V DC sensor 40 mA 24 V DC rack 200 mA 3.3 V DC bus
Module format	Standard
Product weight	0.112 kg

Environment

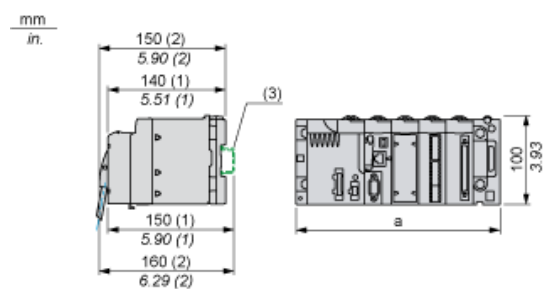
Ambient air temperature for operation	0...60 °C
Relative humidity	10...95 % without condensation
IP degree of protection	IP20
Protective treatment	TC

Offer Sustainability

Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 0722 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental

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.

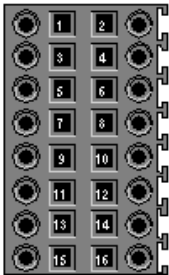
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

Counting Module Wiring

Note

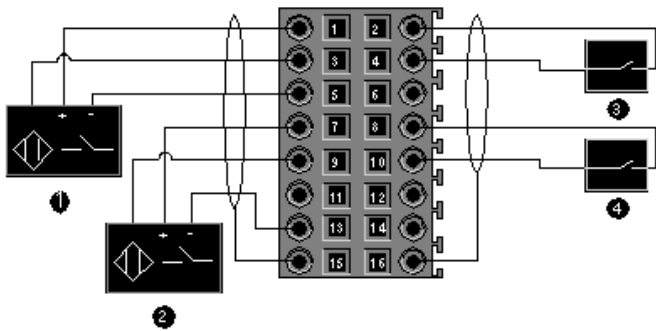
The two 16-pin connectors and the 10-pin connector are sold separately and are available in the BMXXTSHSC20 connection kit.

Assignment of the 16-Pin Connector



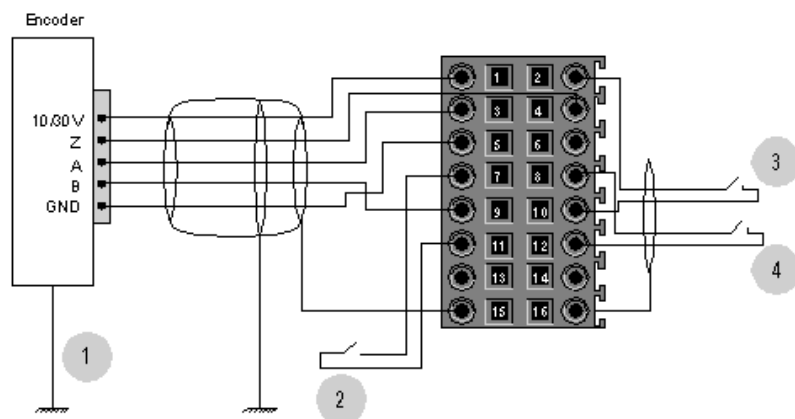
Pin number	Symbol	Description
1, 2, 7, 8	24V_SEN	24 VDC output for sensors supply
5, 6, 13, 14	GND_SEN	24 VDC output for sensors supply
15, 16	FE	Functional earth
3	IN_A	Input A
4	IN_SYNC	Synchronization input
9	IN_B	Input B
10	IN_EN	Enable input selected
11	IN_REF	Homing input
12	IN_CAP	Capture input

Sensors Connection Example



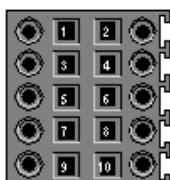
- 1 IN_A input
- 2 IN_B input
- 3 IN_SYNC input (synchronization input)
- 4 IN_EN input (enable input)

Encoder Connection Example for Axis Control



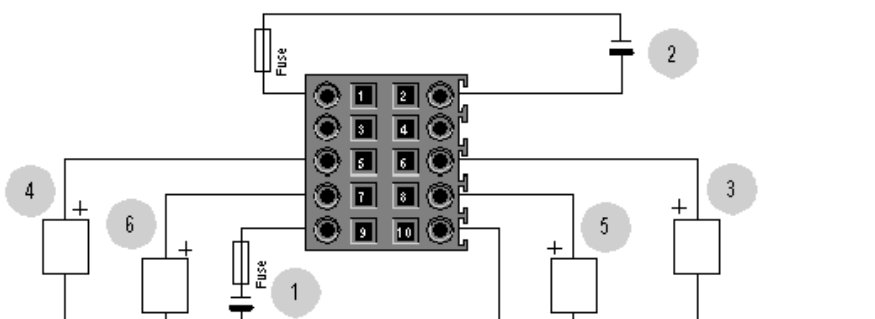
- 1 Encoder (inputs A, B and Z)
- 2 IN_REF input (homing input)
- 3 IN_EN input (enable input)
- 4 IN_CAP input (capture input)

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
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

