



Main

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|---------------------------|--|
| 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 |
| 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 |
| 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 10 pins for wiring auxiliary input and sensor power supply 1 connector 16 pins for wiring the sensors of counter 0 1 connector 16 pins for wiring the sensors of counter 1 |
| Current consumption | 200 mA 3.3 V DC bus 40 mA 24 V DC rack 80 mA 24 V DC sensor |
| Module format | Standard |
| Product weight | 0.112 kg |

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Environment

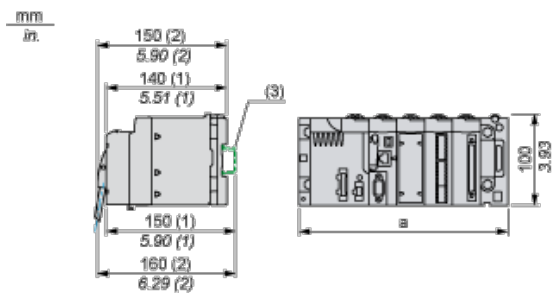
| | |
|---------------------------------------|--------------------------------|
| ambient air temperature for operation | 0...60 °C |
| relative humidity | 10...95 % without condensation |
| IP degree of protection | IP20 |
| protective treatment | TC |

Offer Sustainability

| | |
|----------------------------------|---|
| Sustainable offer status | 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 |
| Product end of life instructions | Available |

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.

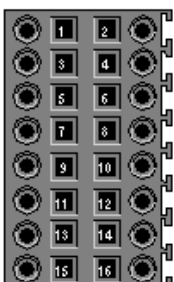
| Rack references | a in mm | a in in. |
|----------------------------|---------|----------|
| BMXXBP0400 and BMXXBP0400H | 242.4 | 09.54 |
| BMXXBP0600 and BMXXBP0600H | 307.6 | 12.11 |
| BMXXBP0800 and BMXXBP0800H | 372.8 | 14.68 |
| BMXXBP1200 and BMXXBP1200H | 503.2 | 19.81 |

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.

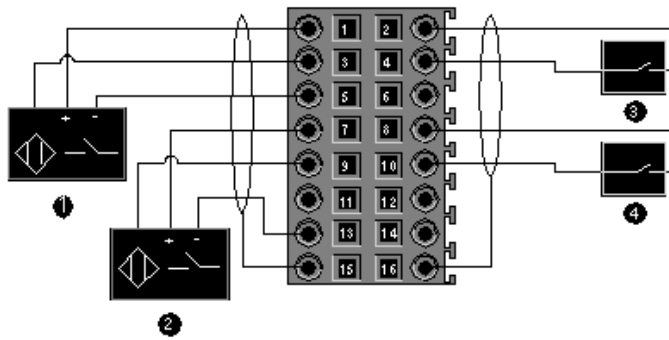
Assignment of the 16-Pin Connector



| 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 |

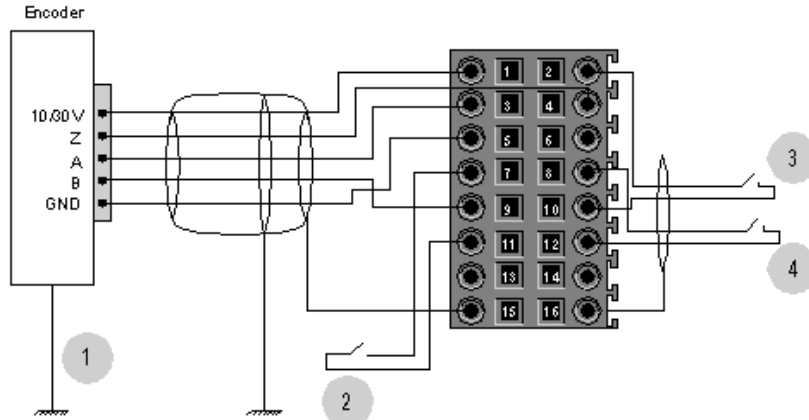
| | | |
|--------|---------|-----------------------|
| 15, 16 | FE | Functional earth |
| 3 | IN_A | Input A |
| 4 | IN_SYNC | Synchronization input |
| 9 | IN_B | Input B |
| 10 | IN_EN | Enable input selected |
| 11 | IN_REF | Homing input |
| 12 | IN_CAP | Capture input |

Sensors Connection Example



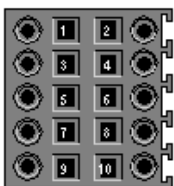
- 1 IN_A input
- 2 IN_B input
- 3 IN_SYNC input (synchronization input)
- 4 IN_EN input (enable input)

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)

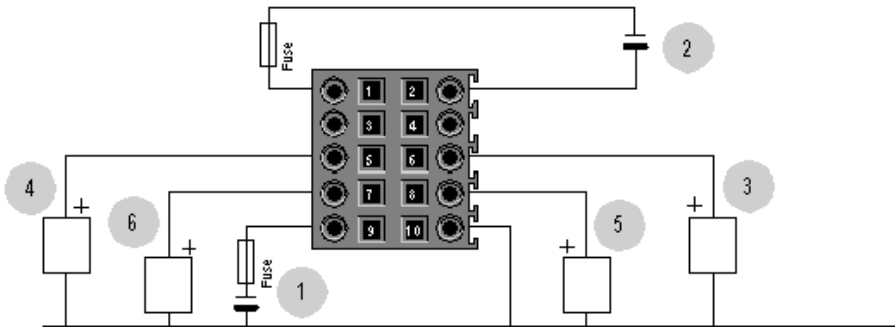
Assignment of the 10-Pin Connector



| 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

